

# Gecko

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# Gecko Connectors Introduction

**Gecko is a 1.25mm pitch High-Reliability connector range from Harwin. Improving on the popular 2mm pitch Datamate series, and harnessing the modern technology of micro-machining, this range brings the best of the high-reliability specifications to a smaller size.**

Gecko provides a low-profile, dual-row solution for all variations of cable-to-board, board-to-board and cable-to-cable interconnect requirements. With up to 50 contacts per connector, but still capable of 2A per contact, Gecko gives both significant weight and space-saving advantages over Micro-D connections. The Gecko range offers either latching connectors, for maximum weight and space-saving, or Screw-Lok connectors for maximum mating strain relief.

- ❖ 2A per contact (all electrically loaded; 2.8A per individual contact)
- ❖ 4-finger Patented\* contact design to maintain electrical contact through high vibration and shock
- ❖ Beryllium Copper Contact for improved temperature range: -65°C to +150°C
- ❖ 1,000 Mating cycles durability
- ❖ Weight and Space-saving over Micro-D connector products
- ❖ Future-proofed Materials - Halogen-free, PFOS-free, SVHC-free and RoHS compliant
- ❖ Low outgassing properties - 0.68% TML, 0.01% CVM, 0.26 WVR (Water Vapour Recovered)
- ❖ All PCB connectors available in Tape and Reel for automation

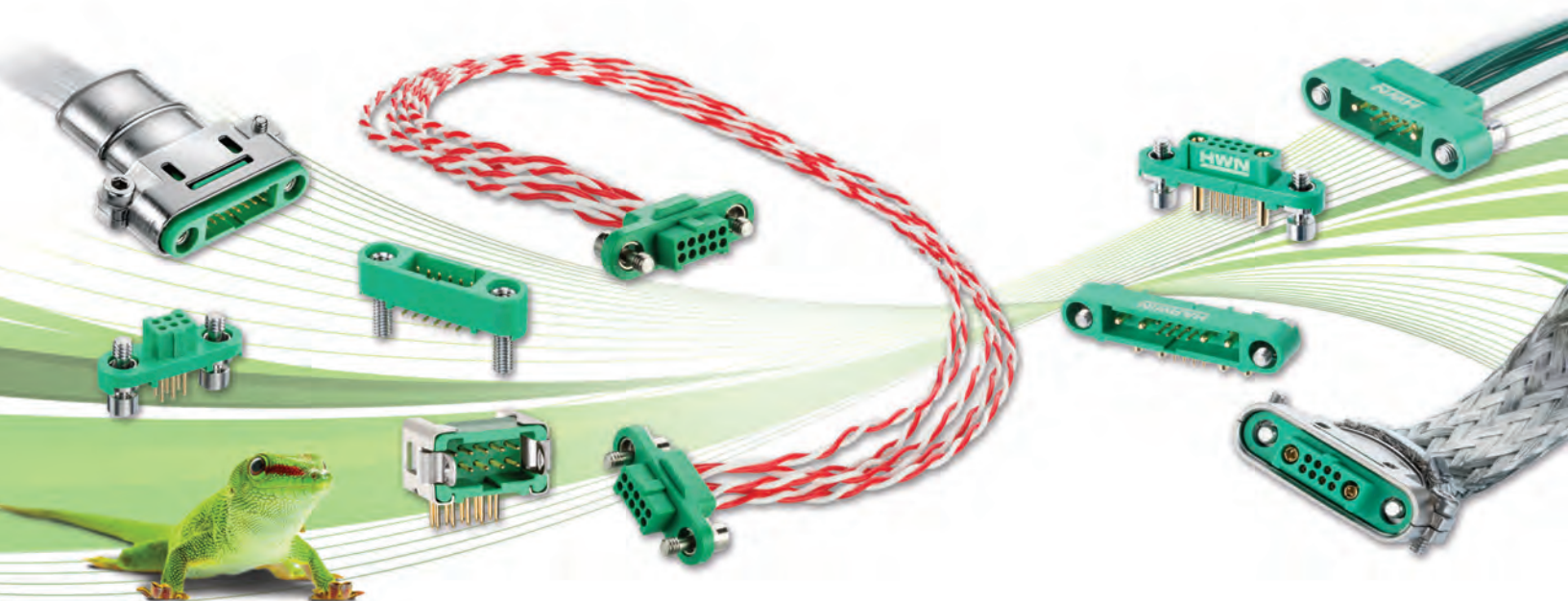
\*Granted US9017089, Pending GB2501063, Pending EP2642604

## Gecko-SL or Latches

- ❖ Strong stainless steel screw fixings for maximum strain relief, or lightweight space-saving robust latches
- ❖ Lightweight hoods for additional cable protection and shielding
- ❖ Choices of pre-wired contacts or full cable assemblies from stock, for prototyping and full production

## Gecko-MT

- ❖ Additional power contacts incorporated into the smallest, lightest mixed-layout connector
- ❖ Choice of 2 or 4 power contacts rated to 10A each
- ❖ Compatible with existing lightweight metal hoods



Patent Published

# Gecko Connectors Product Features

## Four Finger Beryllium Copper Contact

Unique patented pending high-reliability contact design ensures signal integrity under extremes of bump, vibration and shock. Durable to over 1,000 mating cycles.



## Keyway Polarization Points

3 polarizing points on each component prevent mis-mating.



## No. 1 Position identified, Potting Wall

Housings are clearly marked with identifier for fast visual inspection. Cable connectors feature a rear potting wall adding an extra level of strain relief.



## Packaged in Tape & Reel

All connectors for PCB assembly are available packaged in industry standard Tape and Reel format for automated assembly.



## Robust Metal Backshells

Lightweight aluminium hoods / backshells available for all connector sizes from stock. Supplied with tie-bands to attach external braiding for shielded cable assemblies.



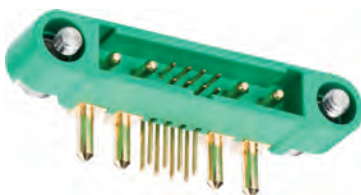
## Pre-assembled Cable Configurations

Cable connectors supplied in ready-made cable assemblies. Single and double-ended configurations available in standard lengths off-the-shelf, or custom assemblies on request.



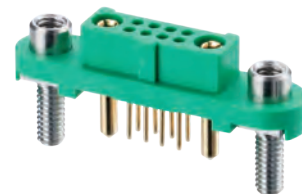
## Minimal Outgassing

Low outgassing properties from future-proofed plastic; within NASA and ESA recommendations.



## Operating Temperature Range

Performance is maintained across the full operating temperature range of -65°C to +150°C.



# Gecko-MT Connectors Specifications

## Materials

|                       |                                                                       |
|-----------------------|-----------------------------------------------------------------------|
| Housings:             | Glass-filled High Temperature Thermoplastic UL94V-0                   |
| Female contacts:      | Beryllium Copper                                                      |
| Male contacts         |                                                                       |
| Signal PCB Connector: | Phosphor Bronze                                                       |
| Signal Crimp:         | Brass                                                                 |
| Power (all):          | Beryllium Copper                                                      |
| Finish                |                                                                       |
| Signal Contacts:      | 0.2 - 0.3µm (8 - 12µ") Gold,<br>over 1.5 - 2.0µm (60 - 80µ") Nickel   |
| Power Contacts:       | 0.8 - 1.0µm (30 - 40µ") Gold,<br>over 1.5 - 2.5µm (60 - 100µ") Nickel |
| Screw-Loks:           | Stainless Steel                                                       |

## Electrical

|                               |                     |
|-------------------------------|---------------------|
| Current                       |                     |
| Signal contacts in isolation: | 2.8A max (at 25°C)  |
| Signal contacts simultaneous: | 2.0A max (at 25°C)  |
| Power contacts simultaneous:  | 10A max             |
| Working voltage               |                     |
| At sea level 1006 mbar:       | 450V DC or AC peak  |
| At altitude 44 mbar:          | 250V DC or AC peak  |
| Voltage proof                 |                     |
| At sea level 1013 mbar:       | 600V DC or AC peak  |
| At altitude 44 mbar:          | 350V DC or AC peak  |
| Contact resistance            |                     |
| Initial:                      | 20mΩ max            |
| After conditioning:           | 25mΩ max            |
| Insulation resistance         |                     |
| Initial:                      | 10GΩ min at 500V DC |
| After conditioning:           | >1GΩ min at 500V DC |

## Mechanical

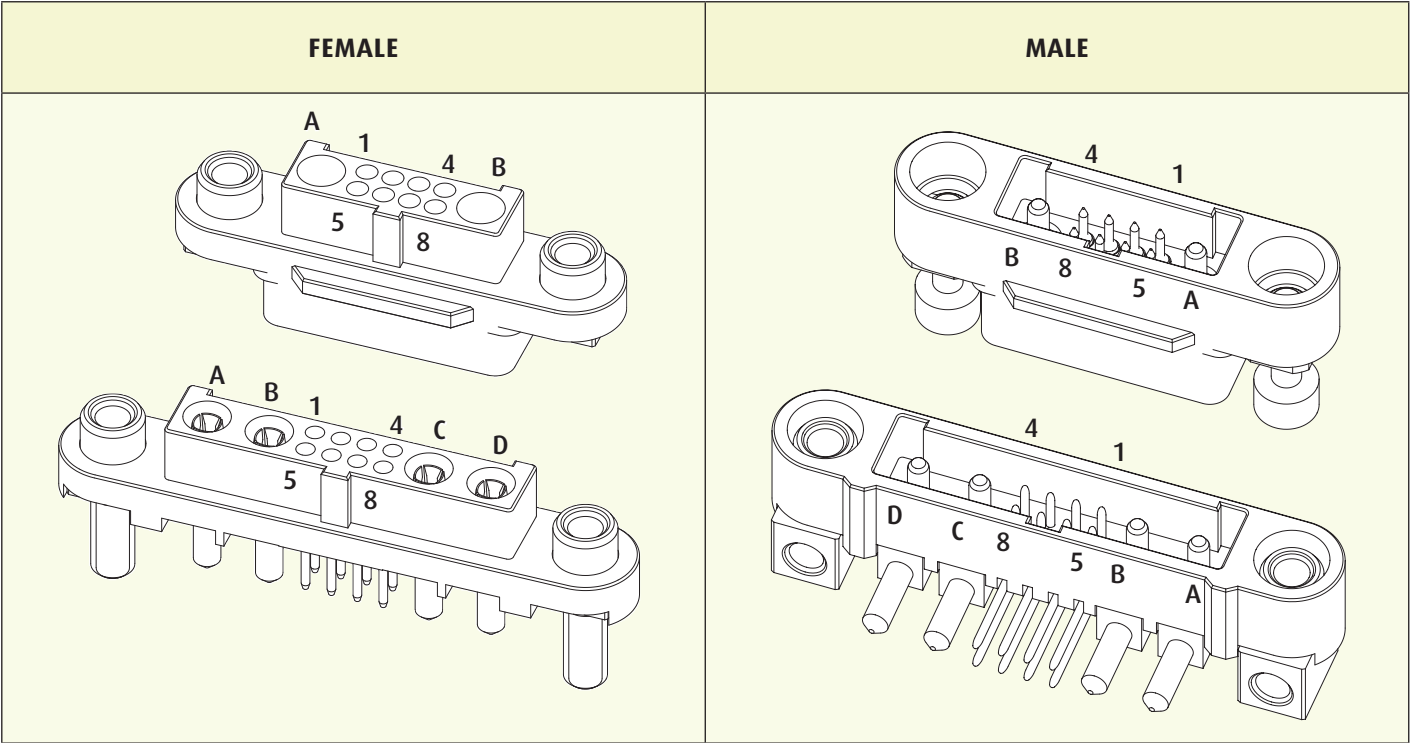
|                                  |                 |
|----------------------------------|-----------------|
| Contact durability:              | 1000 operations |
| Mating forces (per contact pair) |                 |
| Insertion force (signal):        | 2.8N max        |
| Insertion force (power):         | 7.0N max        |
| Withdrawal force:                | 0.2N min        |
| Contact retention in housing:    | 6.0N max        |

## Environmental

|                               |                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------|
| Environmental classification: | 65/150/56 days at 93% RH                                                                         |
| Operating temperature:        | -65°C to +150°C                                                                                  |
| *Vibration sensitivity:       | 10Hz to 2000Hz, 1.5mm,<br>198m/s <sup>2</sup> (20G) duration 6 hours                             |
| *Bump severity:               | 390m/s <sup>2</sup> (40G), 4000 ±10 bumps                                                        |
| *Shock severity:              | 981m/s <sup>2</sup> (100G) for 6ms in Z axis<br>490m/s <sup>2</sup> (50G) for 11ms in X & Y axes |
| *Acceleration severity:       | 490m/s <sup>2</sup> (50G)                                                                        |

\* Tested with latched connectors.

# Gecko-MT Pin Numbering



# Gecko-MT Mating Profiles

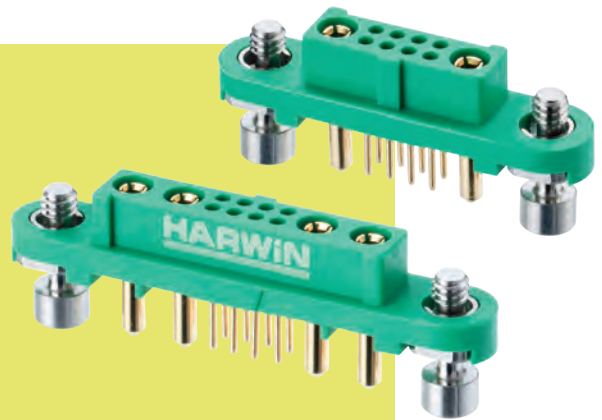
|      |                          | FEMALE                                               |                                                      |
|------|--------------------------|------------------------------------------------------|------------------------------------------------------|
|      |                          | VERTICAL THROUGHBOARD                                | CABLE                                                |
| MALE | HORIZONTAL THROUGH-BOARD | <div><br/>Standard</div> <div><br/>Reverse Fix</div> | <div><br/>Standard</div> <div><br/>Reverse Fix</div> |
|      | CABLE                    | <div><br/>Standard</div>                             | <div><br/>Standard</div>                             |

All dimensions in mm. Patent Published

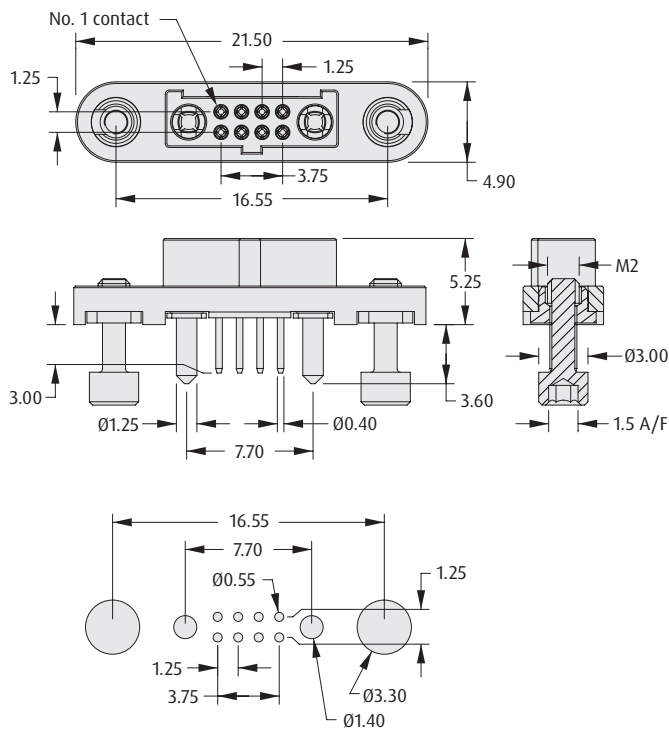
# Gecko-MT Connectors

## Female Vertical Throughboard

- ❖ 2A current rating for signal contacts, 10A for power contacts.
- ❖ Stainless steel floating screw fixing to mate with internal screw-loks on male connectors.
- ❖ 4-finger Beryllium Copper contact design on both signal and power contacts.
- ❖ Positive keyway polarization.



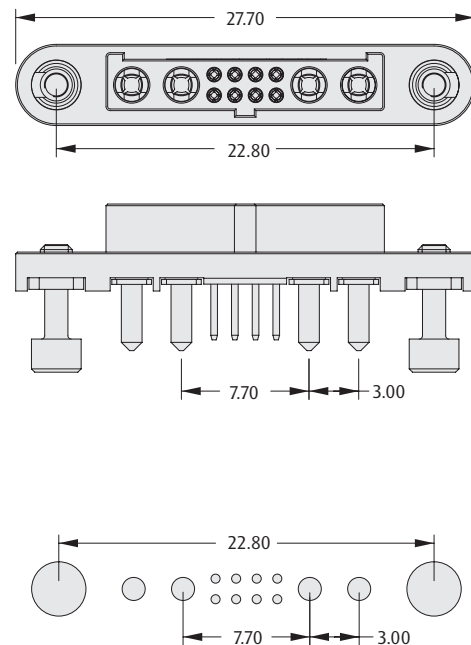
### 1+8+1



Recommended PC Board Pattern

### 2+8+2

All other dimensions as 1+8+1



Recommended PC Board Pattern

## HOW TO ORDER

**G125 - FV1 08 05 F1 - XABXAB P**

### SERIES CODE

### TOTAL NO. OF SIGNAL CONTACTS

08

### SCREW-LOK

F1 Floating Hex Socket

### PACKAGING

P Tape & Reel strips

### POWER CONTACTS

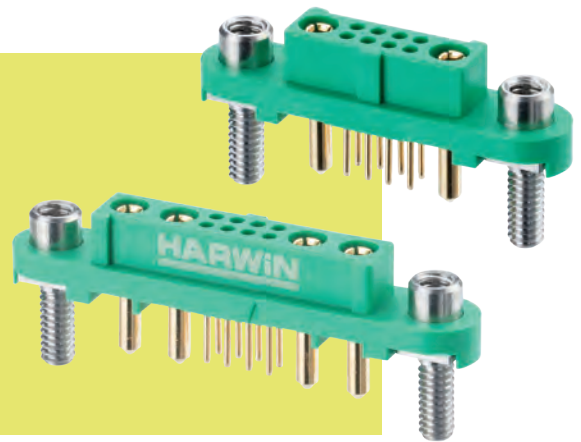
1AB1AB 1+8+1 Configuration

2AB2AB 2+8+2 Configuration

# Gecko-MT Connectors

## Female Vertical Throughboard – Reverse Fix

- Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- 2A current rating for signal contacts, 10A for power contacts.
- 4-finger Beryllium Copper contact design on both signal and power contacts.
- Order nuts for board-mount separately – see bottom of page for choice of nut type.



GECKO-MT

| 1+8+1                               | 2+8+2                               | All other dimensions as 1+8+1 |
|-------------------------------------|-------------------------------------|-------------------------------|
| <p>Recommended PC Board Pattern</p> | <p>Recommended PC Board Pattern</p> |                               |

### HOW TO ORDER

**G125 - FV1 08 05 F3 - XABXAB P**

#### SERIES CODE

#### TOTAL NO. OF SIGNAL CONTACTS

8

#### SCREW-LOK

F3 Reverse Fix

#### PACKAGING

P Tape & Reel strips

#### POWER CONTACTS

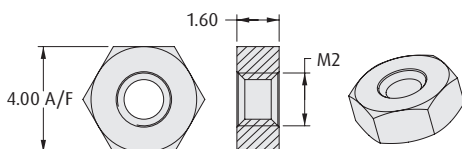
1AB1AB 1+8+1 Configuration

2AB2AB 2+8+2 Configuration

### REQUIRED HARDWARE

Order separately from connector

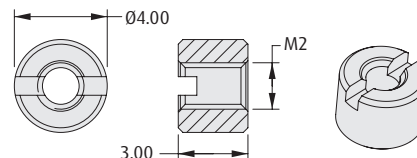
#### Hexagonal Board Mount Nut



#### ORDER CODE

G125-4500000B

#### Slotted Board Mount Nut



#### ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

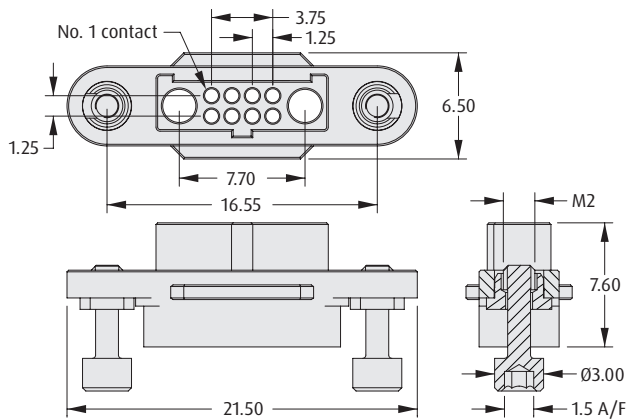
# Gecko-MT Connectors

## Female Cable Housings

- ❖ Features potting wall for backpotting to give extra security.
- ❖ No. 1 position identified on housing.
- ❖ Stainless steel floating screw fixing to mate with internal screw-loks on male connectors.
- ❖ Available without fixing screws, for use with metal backshells.

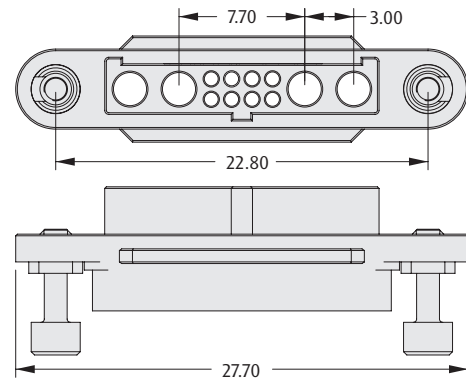


### 1+8+1



### 2+8+2

All other dimensions as 1+8+1



## TOOLS

**Recommended Crimp Tools** – Z125-900 (signal), Z125-903 (power)

**Positioner** – Z125-901 (signal), Z125-904 (power)

**Contact Insertion/Removal Tool** – Z125-902 (signal), Z125-905 (power)

❖ Female contacts shown on a following page.

❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

## HOW TO ORDER

**G125 - 22496 XX - 0X - 08 - 0X**

### SERIES CODE

### SCREW-LOK

|           |                                   |
|-----------|-----------------------------------|
| <b>F1</b> | Floating Hex Socket               |
| <b>00</b> | No Fixings (Use with Metal Hoods) |

### NO. OF CONTACTS

|                 |                     |
|-----------------|---------------------|
| <b>01-08-01</b> | 1+8+1 Configuration |
| <b>02-08-02</b> | 2+8+2 Configuration |

All dimensions in mm.

Patent Published

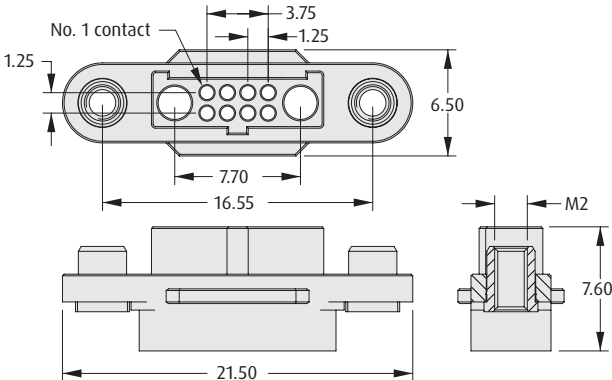
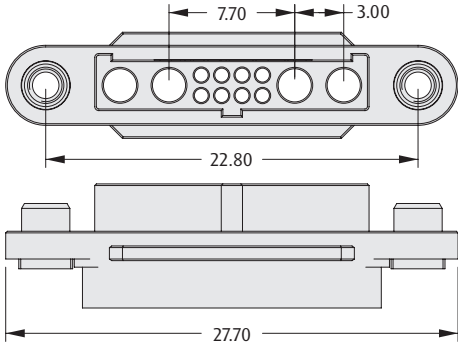
# Gecko-MT Connectors

## Female Cable Housings – Reverse Fix

- ❖ Reverse fix screw-lok, where the male connector has the floating screw.
- ❖ Features potting wall for backpotting to give extra security.
- ❖ No. 1 position identified on housing.



GECKO-MT

| 1+8+1                                                                                                                                                                                                                                                                                                                     |  | 2+8+2                                                                               | All other dimensions as 1+8+1                                                                                                                                              |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                                                                                                                                         |  |  |                                                                                                                                                                            |  |
| TOOLS                                                                                                                                                                                                                                                                                                                     |  |                                                                                     |                                                                                                                                                                            |  |
| <p><b>Recommended Crimp Tools</b> – Z125-900 (signal), Z125-903 (power)</p> <p><b>Positioner</b> – Z125-901 (signal), Z125-904 (power)</p> <p><b>Contact Insertion/Removal Tool</b> – Z125-902 (signal), Z125-905 (power)</p>                                                                                             |  |                                                                                     | <p>❖ Female contacts shown on a following page.</p> <p>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</p> |  |
| HOW TO ORDER                                                                                                                                                                                                                                                                                                              |  |                                                                                     |                                                                                                                                                                            |  |
| <div><div><div><div>G125</div><div>22496</div><div>F2</div><div>0X</div><div>08</div><div>0X</div></div><div><div>SERIES CODE</div><div>SCREW-LOK</div><div>F2 Internal Thread</div></div><div><div>NO. OF CONTACTS</div><div>01-08-01 1+8+1 Configuration</div><div>02-08-02 2+8+2 Configuration</div></div></div></div> |  |                                                                                     |                                                                                                                                                                            |  |

All dimensions in mm.

Patent Published

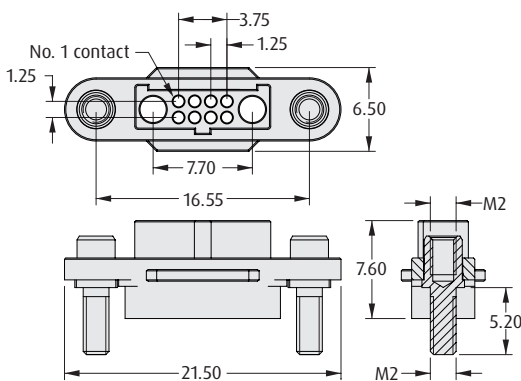
# Gecko-MT Connectors

## Female Cable Housings – Reverse Fix Panel Mount

- ❖ Reverse fix screw-lok, where the male connector has the floating screw.
- ❖ Features potting wall for backpotting to give extra security.
- ❖ No. 1 position identified on housing.
- ❖ Order nuts for panel mount separately - see bottom of page.

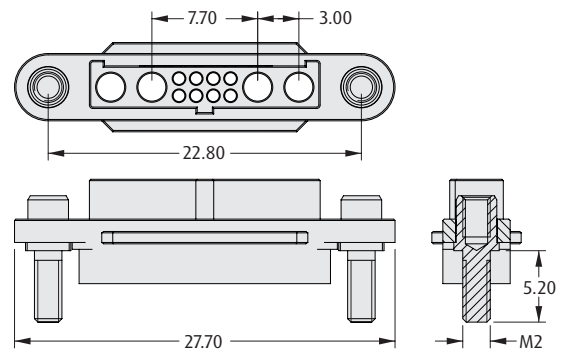


### 1+8+1



### 2+8+2

All other dimensions as 1+8+1



## TOOLS

**Recommended Crimp Tools** – Z125-900 (signal), Z125-903 (power)

**Positioner** – Z125-901 (signal), Z125-904 (power)

**Contact Insertion/Removal Tool** – Z125-902 (signal), Z125-905 (power)

❖ Female contacts shown on a following page.

❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

## HOW TO ORDER

**G125 - 22496 F3 - 0X - 08 - 0X**

### SERIES CODE

### SCREW-LOK

**F3** With 5.2mm Panel Mount stud

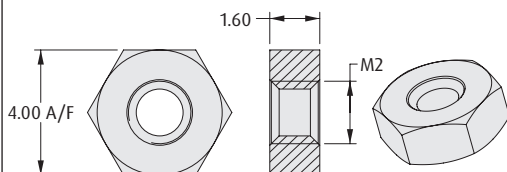
### NO. OF CONTACTS

|                 |                     |
|-----------------|---------------------|
| <b>01-08-01</b> | 1+8+1 Configuration |
| <b>02-08-02</b> | 2+8+2 Configuration |

## REQUIRED HARDWARE

Order separately from connector

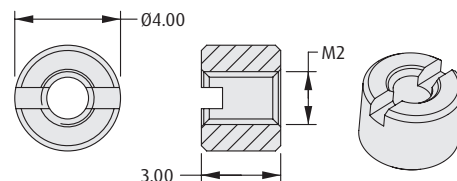
### Hexagonal Board Mount Nut



### ORDER CODE

**G125-45000008**

### Slotted Board Mount Nut



### ORDER CODE

**G125-45100008**

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Female Crimp Contacts

- ❖ 4-finger Beryllium Copper contact design on both signal and power contacts.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).



GECKO-MT

| CONTACTS                                                                                                                                                                                                                                                      |                                | POWER CONTACT                                                                                                                                                                                                                                    |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|-----------------------------|-----|--------------------------------|-----|----------------------------|-------------------------------------------------------------------------------|--|----|------|
| <div>26 AWG</div> <div></div>                                                                                                                                                                                                                                 |                                | <div>18 AWG</div> <div></div>                                                                                                                                                                                                                    |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| <div>28 – 32 AWG</div> <div></div>                                                                                                                                                                                                                            |                                | <div>WIRE STRIPPING DETAILS</div> <div></div>                                                                                                                                                                                                    |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| TOOLS                                                                                                                                                                                                                                                         |                                |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| <div>Recommended Crimp Tools – Z125-900 (signal), Z125-903 (power)</div> <div>Positioner – Z125-901 (signal), Z125-904 (power)</div> <div>Contact Insertion/Removal Tool – Z125-902 (signal), Z125-905 (power)</div>                                          |                                | <div>❖ Female crimp housings shown on previous pages.</div> <div>❖ Pre-cabled contacts shown on following page.</div> <div>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</div> |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| HOW TO ORDER                                                                                                                                                                                                                                                  |                                |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| <div>G125 – 0XX 00 05</div>                                                                                                                                                                                                                                   |                                |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| <div>SERIES CODE</div> <div><table><tr><th>TYPE</th><th></th></tr><tr><td>001</td><td>Female 26 AWG crimp contact</td></tr><tr><td>002</td><td>Female 28-32 AWG crimp contact</td></tr><tr><td>050</td><td>Female power crimp contact</td></tr></table></div> |                                | TYPE                                                                                                                                                                                                                                             |  | 001 | Female 26 AWG crimp contact | 002 | Female 28-32 AWG crimp contact | 050 | Female power crimp contact | <div>FINISH</div> <div><table><tr><td>05</td><td>Gold</td></tr></table></div> |  | 05 | Gold |
| TYPE                                                                                                                                                                                                                                                          |                                |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| 001                                                                                                                                                                                                                                                           | Female 26 AWG crimp contact    |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| 002                                                                                                                                                                                                                                                           | Female 28-32 AWG crimp contact |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| 050                                                                                                                                                                                                                                                           | Female power crimp contact     |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |
| 05                                                                                                                                                                                                                                                            | Gold                           |                                                                                                                                                                                                                                                  |  |     |                             |     |                                |     |                            |                                                                               |  |    |      |

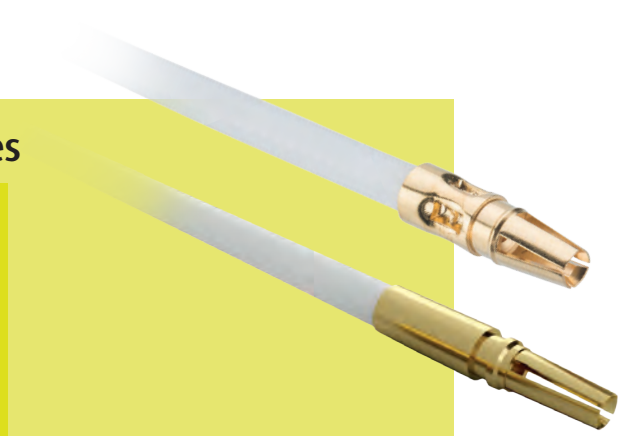
All dimensions in mm.

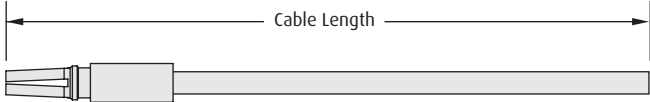
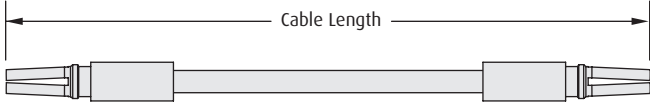
Patent Published

# Gecko-MT Connectors

## Female Crimp Contacts – Pre-Crimped Wires

- ❖ 4-finger Beryllium Copper contact.
- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.



| FEMALE SINGLE ENDED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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| HOW TO ORDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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All dimensions in mm.

Patent Published

# Gecko-MT Connectors

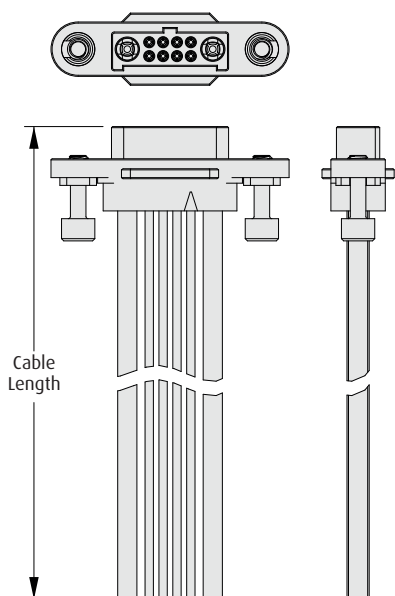
## Female Cable Assemblies

- ❖ Ready-made cable assemblies, backpotted for added strain relief.
- ❖ 4-finger Beryllium Copper contacts.
- ❖ No. 1 position identified on housing.
- ❖ Constructed with Contact 1 to Contact 1, Contact A to Contact A, etc.

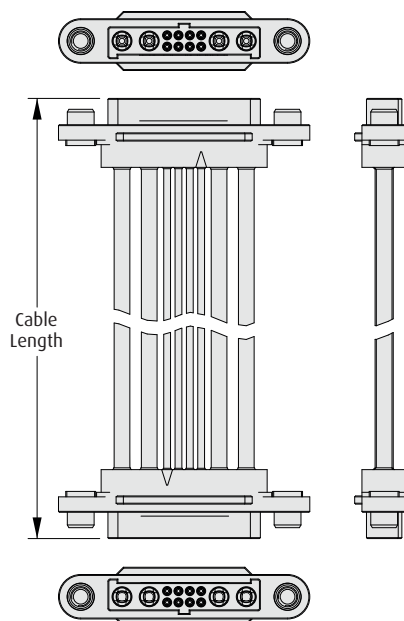


GECKO-MT

### FEMALE SINGLE ENDED



### FEMALE - FEMALE



### HOW TO ORDER

**G125 - F CX 08 FX - XBXB - XXXX - XX**

#### SERIES CODE

#### GENDER - FIRST END

**F** Female

#### CABLE SIZE (SIGNAL)

**C1** 26 AWG

**C2** 28 AWG

#### SCREW-LOK

**F1** Floating Hex Socket

**F2** Internal Thread (Reverse Fix)

#### TERMINATION - SECOND END

**L** Loose cut end

**F1 or F2** Female connector (same as First End)

#### CABLE LENGTH

**XXXX** XXXXmm

#### POWER CONTACTS

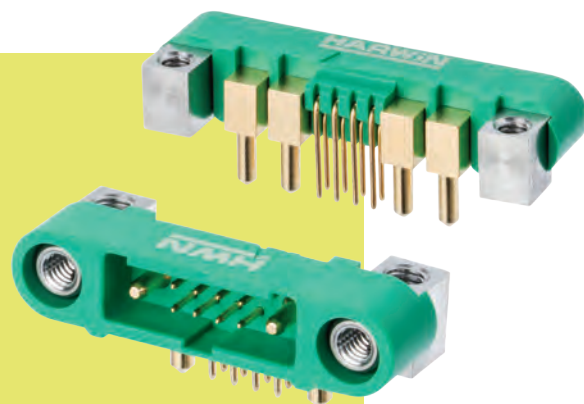
**1B1B** 1+8+1 configuration

**2B2B** 2+8+2 configuration

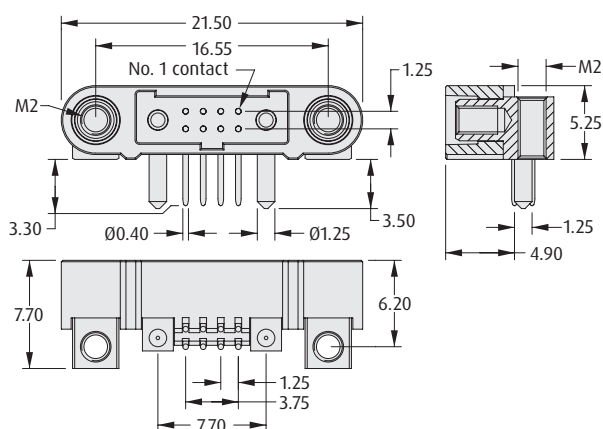
# Gecko-MT Connectors

## Male Horizontal Throughboard

- ❖ 2A current rating for signal contacts, 10A for power contacts.
- ❖ Polarized housing with 3 keyways.
- ❖ Stainless steel screw fixing to mate with floating screw-loks on female connectors, also with board mount thread.
- ❖ Order bolts for board-mount separately.
- ❖ If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.

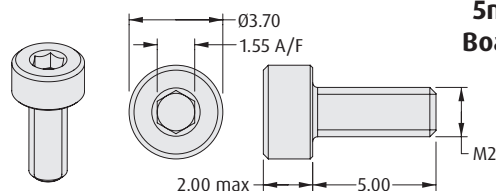


**1+8+1**



### REQUIRED HARDWARE

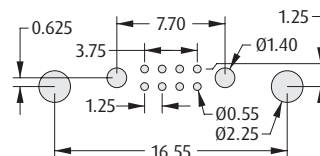
Order separately from connector



**5mm Hex Socket  
Board Mount Bolt**

**ORDER CODE**

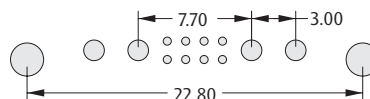
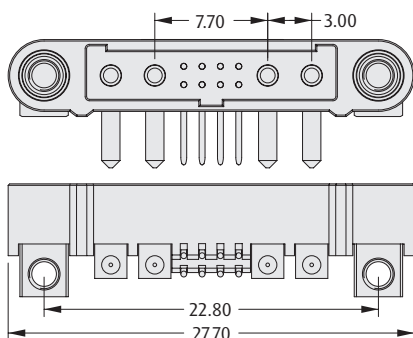
**G125-4520000B**



Recommended PC Board Pattern

**2+8+2**

All other dimensions as 1+8+1



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - MH1 08 05 M4 - XAD XAD P**

**SERIES CODE**

**TOTAL NO. OF SIGNAL CONTACTS**

**08**

**SCREW-LOK**

**M4** With Board Mount

**PACKAGING**

**P**

Tape & Reel strips

**POWER CONTACTS**

**1AD1AD** 1+8+1 Configuration

**2AD2AD** 2+8+2 Configuration

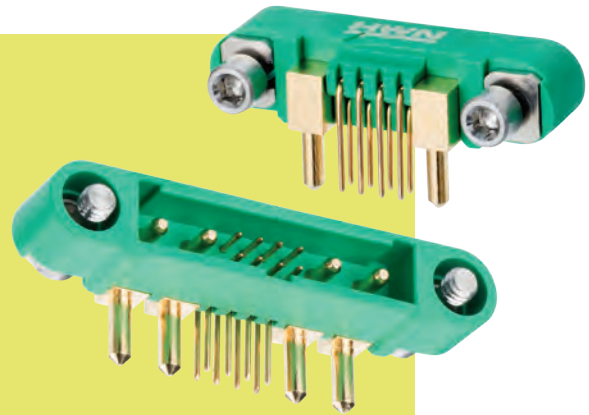
All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Male Horizontal Throughboard – Reverse Fix

- Reverse fix screw-lok, where the male connector has the floating screw.
- 2A current rating for signal contacts, 10A for power contacts.
- Polarized housing with 3 keyways.
- If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.



GECKO-MT

| 1+8+1                               |  | 2+8+2                               |  | All other dimensions as 1+8+1 |  |
|-------------------------------------|--|-------------------------------------|--|-------------------------------|--|
| <p>Recommended PC Board Pattern</p> |  | <p>Recommended PC Board Pattern</p> |  |                               |  |
| HOW TO ORDER                        |  |                                     |  |                               |  |
| G125 - MH1 08 05 M3 - XADXAD P      |  |                                     |  |                               |  |
| SERIES CODE                         |  | PACKAGING                           |  |                               |  |
|                                     |  | P Tape & Reel strips                |  |                               |  |
| TOTAL NO. OF SIGNAL CONTACTS        |  | POWER CONTACTS                      |  |                               |  |
| 08                                  |  | 1AD1AD 1+8+1 Configuration          |  |                               |  |
|                                     |  | 2AD2AD 2+8+2 Configuration          |  |                               |  |
| SCREW-LOK                           |  |                                     |  |                               |  |
| M3 Reverse Fix Floating Hex Socket  |  |                                     |  |                               |  |

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Male Cable Housings

- ❖ Features potting wall for backpotting to give extra security.
- ❖ No. 1 position identified on housing.
- ❖ Stainless steel screw fixing to mate with floating screw-loks on female connectors.
- ❖ Compatible with metal backshells.



| 1+8+1 | 2+8+2 | All other dimensions as 1+8+1 |
|-------|-------|-------------------------------|
|       |       |                               |

## TOOLS

**Recommended Crimp Tools** – Z125-900 (signal), Z125-903 (power)

**Positioner** – Z125-901 (signal), Z125-904 (power)

**Contact Insertion/Removal Tool** – Z125-902 (signal), Z125-905 (power)

- ❖ Male contacts shown on a following page.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

## HOW TO ORDER

**G125 - 32496 M1 - 0X - 08 - 0X**

**SERIES CODE**

**SCREW-LOK**

**M1** Internal Thread

**NO. OF CONTACTS**

|                 |                     |
|-----------------|---------------------|
| <b>01-08-01</b> | 1+8+1 Configuration |
| <b>02-08-02</b> | 2+8+2 Configuration |

# Gecko-MT Connectors

## Male Cable Housings – Panel Mount

- ❖ Features potting wall for backpotting to give extra security.
- ❖ No. 1 position identified on housing.
- ❖ Stainless steel screw fixing to mate with floating screw-loks on female connectors.
- ❖ Order nuts for panel mount separately - see bottom of page.



GECKO-MT

| 1+8+1 | 2+8+2 | All other dimensions as 1+8+1 |
|-------|-------|-------------------------------|
|       |       |                               |

### TOOLS

**Recommended Crimp Tools** – Z125-900 (signal), Z125-903 (power)  
**Positioner** – Z125-901 (signal), Z125-904 (power)  
**Contact Insertion/Removal Tool** – Z125-902 (signal), Z125-905 (power)

- ❖ Male contacts shown on a following page.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 32496 M2 - 0X - 08 - 0X**

#### SERIES CODE

#### SCREW-LOK

**M2** With 5.2mm Panel Mount stud

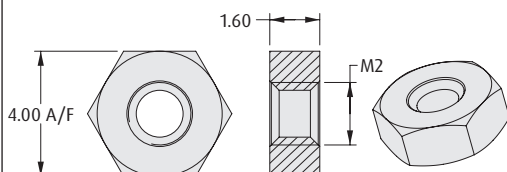
#### NO. OF CONTACTS

|                 |                     |
|-----------------|---------------------|
| <b>01-08-01</b> | 1+8+1 Configuration |
| <b>02-08-02</b> | 2+8+2 Configuration |

### REQUIRED HARDWARE

Order separately from connector

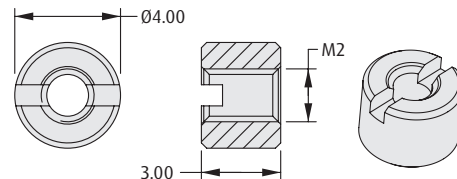
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-45000008**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-45100008**

All dimensions in mm.

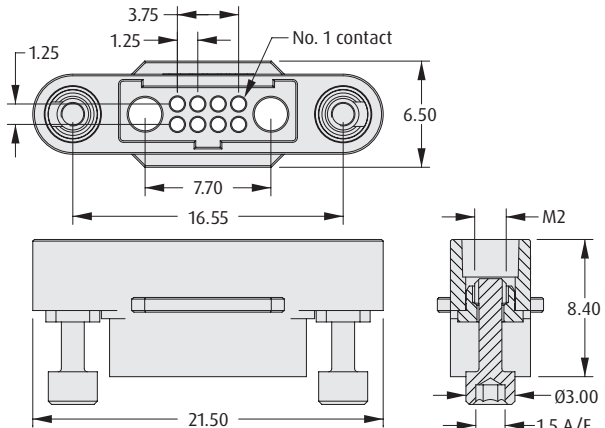
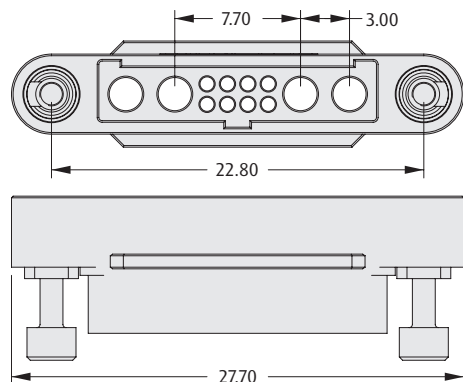
Patent Published

# Gecko-MT Connectors

## Male Cable Housings – Reverse Fix

- ❖ Reverse fix floating screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- ❖ Features potting wall for backpotting to give extra security.
- ❖ No. 1 position identified on housing.



| 1+8+1                                                                                                                                                                                                                                                                                                                                              |  | 2+8+2 | All other dimensions as 1+8+1                                                                                                                                            |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                                                                                                                                                                  |  |       |                                                                                       |  |
| TOOLS                                                                                                                                                                                                                                                                                                                                              |  |       |                                                                                                                                                                          |  |
| <p><b>Recommended Crimp Tools</b> – Z125-900 (signal), Z125-903 (power)</p> <p><b>Positioner</b> – Z125-901 (signal), Z125-904 (power)</p> <p><b>Contact Insertion/Removal Tool</b> – Z125-902 (signal), Z125-905 (power)</p>                                                                                                                      |  |       | <p>❖ Male contacts shown on a following page.</p> <p>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</p> |  |
| HOW TO ORDER                                                                                                                                                                                                                                                                                                                                       |  |       |                                                                                                                                                                          |  |
| <div><div><div><div>G125</div><div>32496</div><div>M3</div><div>0X</div><div>08</div><div>0X</div></div><div><div>SERIES CODE</div><div>SCREW-LOK</div><div>M3 Reverse Fix Floating Hex Socket</div></div><div><div>NO. OF CONTACTS</div><div><div>01-08-011+8+1 Configuration</div><div>02-08-022+8+2 Configuration</div></div></div></div></div> |  |       |                                                                                                                                                                          |  |

All dimensions in mm.

Patent Published

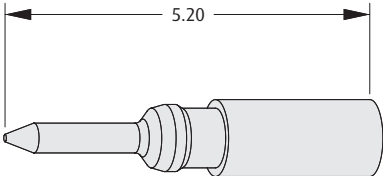
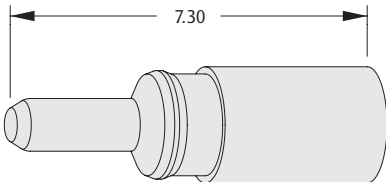
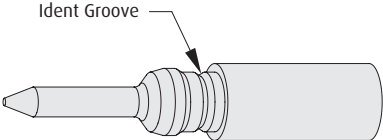
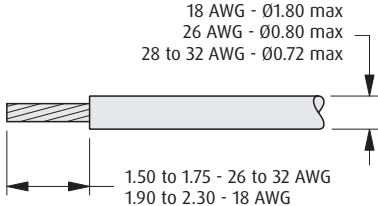
# Gecko-MT Connectors

## Male Crimp Contacts

- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).



GECKO-MT

| CONTACTS                                                                                                                                                                                                              |                              | POWER CONTACT                                                                                                                                                                                                                            |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|---------------------------|-----|------------------------------|-----|--------------------------|--------------------------------------------------|--|----|------|
| <div>26 AWG</div>                                                                                                                    |                              | <div>18 AWG</div>                                                                                                                                      |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| <div>28 - 32 AWG</div>                                                                                                             |                              | <div>WIRE STRIPPING DETAILS</div>                                                                                                                    |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| TOOLS                                                                                                                                                                                                                 |                              |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| <div>Recommended Crimp Tools - Z125-900 (signal), Z125-903 (power)</div> <div>Positioner - Z125-901 (signal), Z125-904 (power)</div> <div>Contact Insertion/Removal Tool - Z125-902 (signal), Z125-905 (power)</div>  |                              | <div>❖ Male housings shown on previous pages.</div> <div>❖ Pre-cabled contacts shown on following page.</div> <div>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</div> |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| HOW TO ORDER                                                                                                                                                                                                          |                              |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| <div>G125 - 1XX 00 05</div>                                                                                                                                                                                           |                              |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| <div>SERIES CODE</div>                                                                                                                                                                                                |                              | <div>FINISH</div>                                                                                                                                                                                                                        |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| <table><tr><th>TYPE</th><th></th></tr><tr><td>101</td><td>Male 26 AWG crimp contact</td></tr><tr><td>102</td><td>Male 28-32 AWG crimp contact</td></tr><tr><td>150</td><td>Male power crimp contact</td></tr></table> |                              | TYPE                                                                                                                                                                                                                                     |  | 101 | Male 26 AWG crimp contact | 102 | Male 28-32 AWG crimp contact | 150 | Male power crimp contact | <table><tr><td>05</td><td>Gold</td></tr></table> |  | 05 | Gold |
| TYPE                                                                                                                                                                                                                  |                              |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| 101                                                                                                                                                                                                                   | Male 26 AWG crimp contact    |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| 102                                                                                                                                                                                                                   | Male 28-32 AWG crimp contact |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| 150                                                                                                                                                                                                                   | Male power crimp contact     |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |
| 05                                                                                                                                                                                                                    | Gold                         |                                                                                                                                                                                                                                          |  |     |                           |     |                              |     |                          |                                                  |  |    |      |

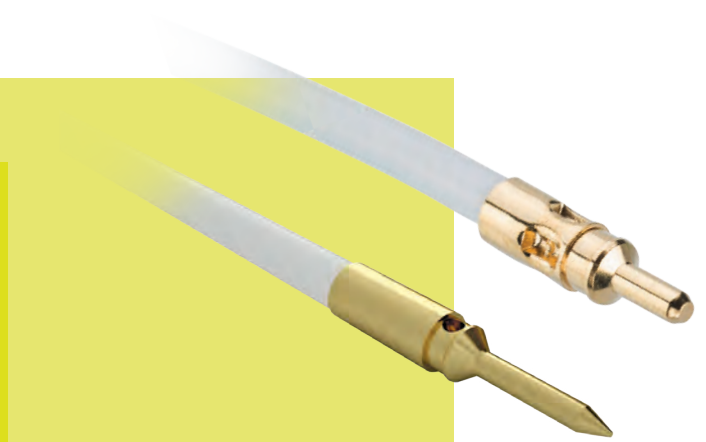
All dimensions in mm.

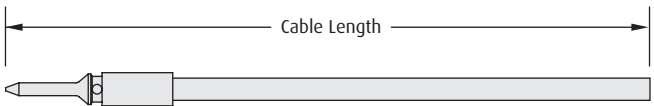
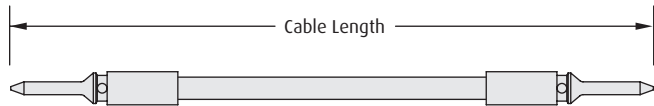
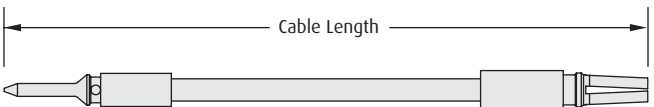
Patent Published

# Gecko-MT Connectors

## Male Crimp Contacts – Pre-Crimped Wires

- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.



| MALE SINGLE ENDED                                                                   | MALE – MALE                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                                                                                                                                                                                                         |
| MALE – FEMALE                                                                       | TOOLS                                                                                                                                                                                                                                                                                                                                                                                     |
|  | <p><b>Contact Insertion/Removal Tool</b> – Z125-902 (signal), Z125-905 (power)</p> <ul style="list-style-type: none"> <li>❖ Male crimp housings and loose contacts shown on previous pages.</li> <li>❖ Full cable assemblies shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul> |

## HOW TO ORDER

**G125 – M XX XXXX X 94**

### SERIES CODE

### GENDER – FIRST END

**M** Male

### CABLE SIZE

|           |                 |
|-----------|-----------------|
| <b>W1</b> | 26 AWG (signal) |
| <b>W2</b> | 28 AWG (signal) |
| <b>W3</b> | 30 AWG (signal) |
| <b>P1</b> | 18 AWG (power)  |

### CABLE COLOR

**94** White

### TERMINATION – SECOND END

|          |               |
|----------|---------------|
| <b>L</b> | Loose cut end |
| <b>F</b> | Female        |
| <b>M</b> | Male          |

### CABLE LENGTH

|             |                      |
|-------------|----------------------|
| <b>0150</b> | 150mm                |
| <b>0300</b> | 300mm (double-ended) |
| <b>0450</b> | 450mm (single-ended) |

# Gecko-MT Connectors

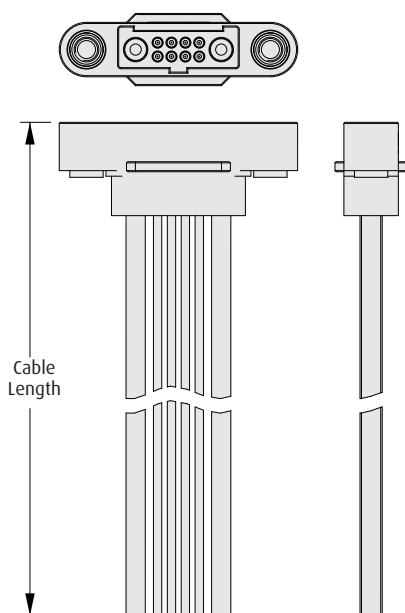
## Male Cable Assemblies

- Ready-made cable assemblies, backpotted for added strain relief.
- 4-finger Beryllium Copper contacts.
- No. 1 position identified on housing.
- Constructed with Contact 1 to Contact 1, Contact A to Contact A, etc.
- Male-to-male cable length (not shown) is measured in the same style as male-to-female.

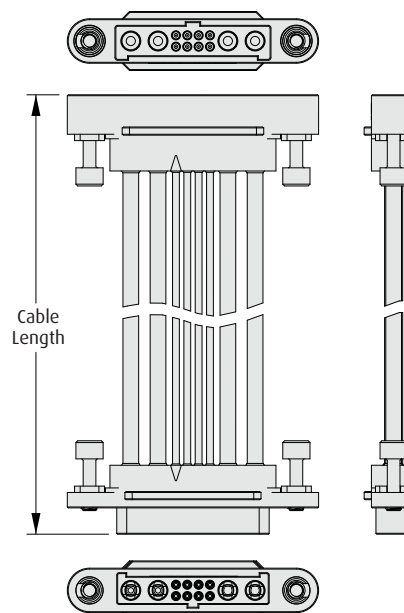


GECKO-MT

### MALE SINGLE ENDED



### MALE-FEMALE



### HOW TO ORDER

**G125 - M CX 08 MX - XDXD - XXXX - XX**

#### SERIES CODE

#### GENDER - FIRST END

**M** Male

#### CABLE SIZE (SIGNAL)

**C1** 26 AWG

**C2** 28 AWG

#### SCREW-LOK

**M1** Internal Thread

**M3** Floating Hex Socket (Reverse Fix)

#### TERMINATION - SECOND END

**L** Loose cut end

**F1** Female with Floating Hex Socket

**F2** Female with Internal Thread (Reverse Fix)

**M1 or M3** Male connector (same as First End)

#### CABLE LENGTH

**XXXX** XXXXmm

#### POWER CONTACTS

**1D1D** 1+8+1 configuration

**2D2D** 2+8+2 configuration

All dimensions in mm.

Patent Published

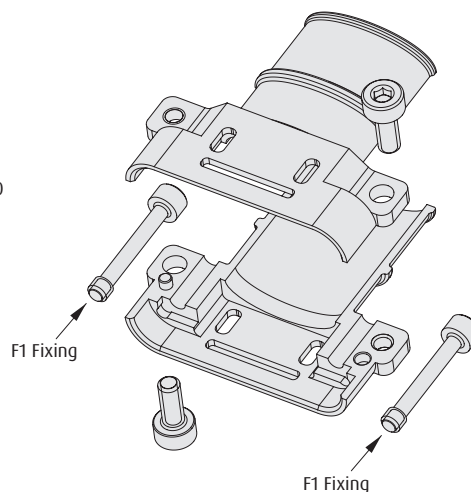
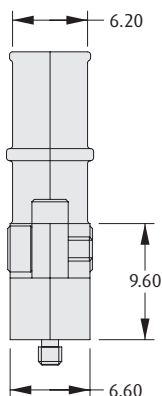
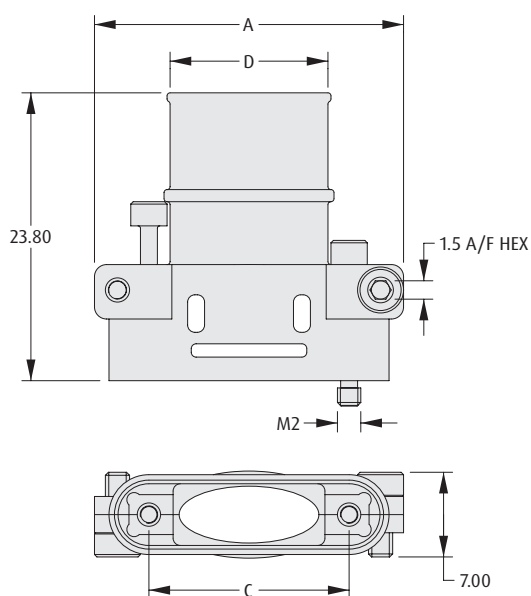
# Gecko-MT Connectors

## Metal Hood / Backshell - Cable

- ❖ Supplied as a kit - includes 2 metal hood halves, and short screws & nuts to join the two hood halves together (nuts not illustrated).
- ❖ Use 00 fixing kit on male housings G125-32496M1-xx-08-xx for standard gender fixings.
- ❖ F1 kit includes extended fixing screws - use with female housings G125-2249600-xx-08-xx.
- ❖ Tie-band can be used to attach external braid, to construct a shielded cable assembly.



### HOOD / BACKSHELL



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 16.8$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |
| <b>D</b> | $B + 4.3$                                         |

### HOW TO ORDER

**G125 - 964 XX XX**

#### SERIES CODE

#### SCREW-LOK

|           |                                       |
|-----------|---------------------------------------|
| <b>00</b> | Use with G125-32496M1 male housings   |
| <b>F1</b> | Use with G125-2249600 female housings |

#### TOTAL NO. OF CONTACTS

|           |                              |
|-----------|------------------------------|
| <b>16</b> | Use with 1+8+1 configuration |
| <b>26</b> | Use with 2+8+2 configuration |

### BAND-IT TIE

- ❖ For fixing braid to rear collar (requires Tie Dex II A30199 Micro Band tool).



#### ORDER CODE

|                    |                  |
|--------------------|------------------|
| <b>M80-9470000</b> | Length = 206.8mm |
| <b>M80-9480000</b> | Length = 362.0mm |

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Metal Hood / Backshell - Board Mount or Panel Mount

- ❖ Use with G125-FV10805F3-xABxAB connectors in a PCB mounted application.
- ❖ Use with G125-22496F3-xx-08-xx housings for a panel mount application.

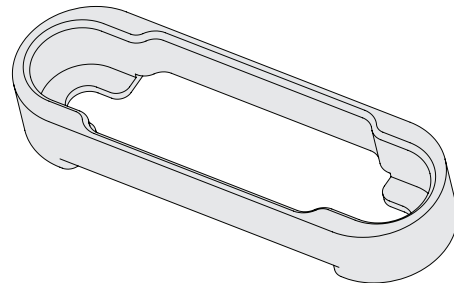
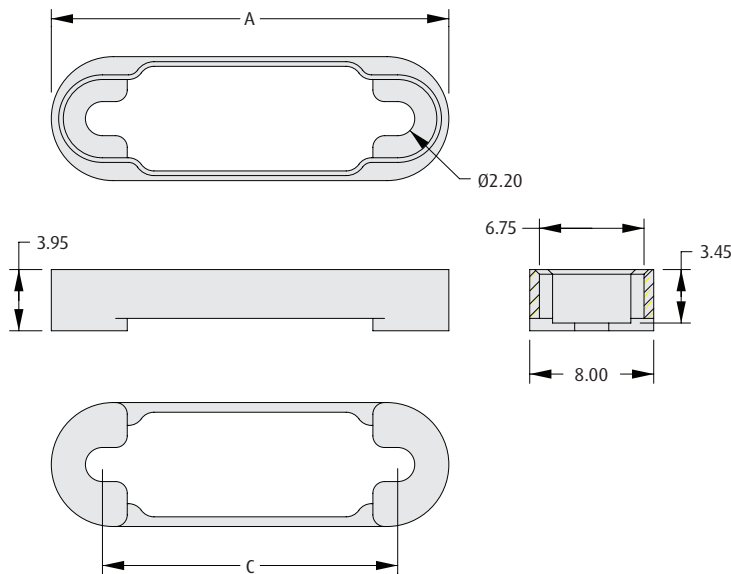


GECKO-MT

### HOOD / BACKSHELL

### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 14.4$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |



### HOW TO ORDER

**G125 - 960 XX 02**

**SERIES CODE**

**TOTAL NO. OF CONTACTS**

|           |                              |
|-----------|------------------------------|
| <b>16</b> | Use with 1+8+1 configuration |
| <b>26</b> | Use with 2+8+2 configuration |

All dimensions in mm.

Patent Published

# Gecko-SL Specifications

## Materials

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| Housings:        | Glass-filled High Temperature Thermoplastic UL94V-0                 |
| Female contacts: | Beryllium Copper                                                    |
| Male contacts:   |                                                                     |
| PCB Connector:   | Phosphor Bronze                                                     |
| Crimp:           | Brass                                                               |
| Finish:          | 0.2 – 0.3µm (8 – 12µ") Gold,<br>over 1.5 – 2.0µm (60 – 80µ") Nickel |
| Screw-Loks:      | Stainless Steel                                                     |

## Electrical

|                                   |                     |
|-----------------------------------|---------------------|
| <b>Current</b>                    |                     |
| Individual contacts in isolation: | 2.8A max (At 25°C)  |
| All contacts simultaneously:      | 2.0A max (At 25°C)  |
| <b>Working voltage</b>            |                     |
| At sea level 1006 mbar:           | 450V DC or AC peak  |
| At altitude 44 mbar:              | 250V DC or AC peak  |
| <b>Voltage proof</b>              |                     |
| At sea level 1013 mbar:           | 600V DC or AC peak  |
| <b>Contact resistance</b>         |                     |
| Initial:                          | 20mΩ max            |
| After conditioning:               | 25mΩ max            |
| <b>Insulation resistance</b>      |                     |
| Initial:                          | 10GΩ min at 500V DC |
| After conditioning:               | >1GΩ min at 500V DC |

## Mechanical

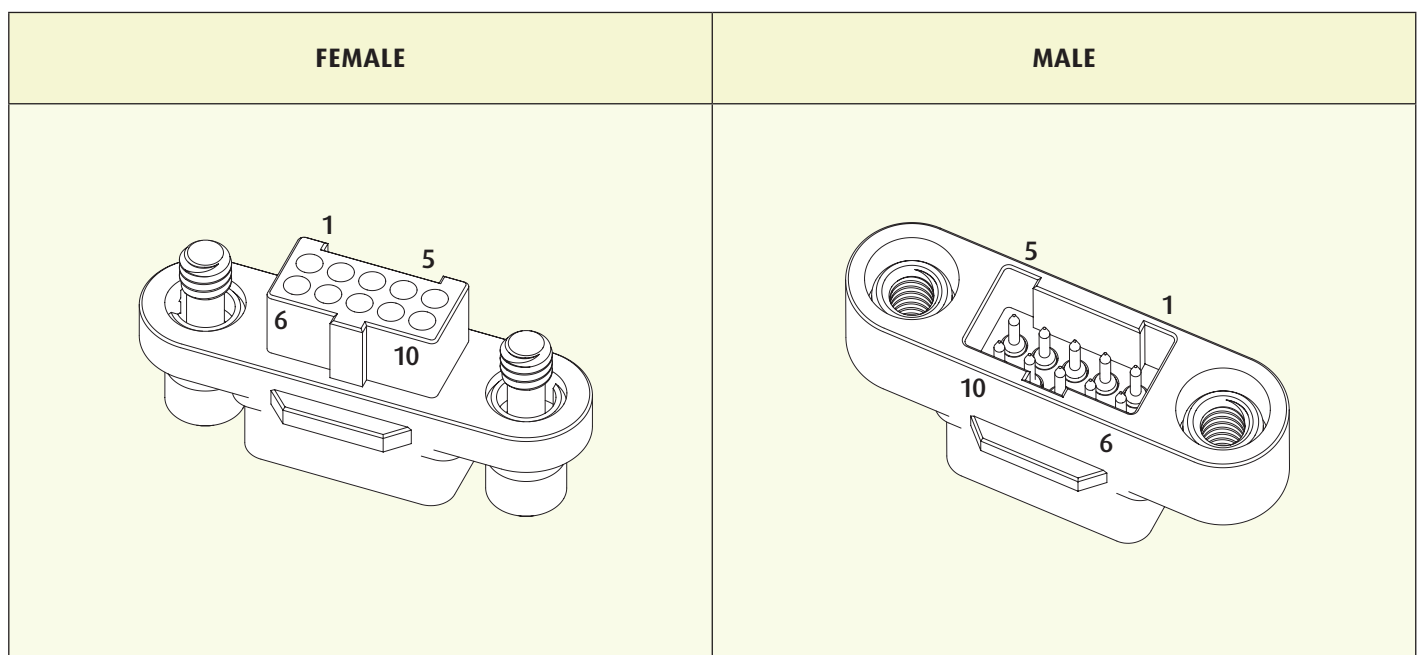
|                                         |                 |
|-----------------------------------------|-----------------|
| Contact durability:                     | 1000 operations |
| <b>Mating forces (per contact pair)</b> |                 |
| Insertion force:                        | 2.8N max        |
| Withdrawal force:                       | 0.2N min        |
| Contact retention in housing:           | 6N min          |

## Environmental

|                               |                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------|
| Environmental classification: | 65/150/56 days at 93% RH                                                                         |
| Operating temperature:        | -65°C to +150°C                                                                                  |
| *Vibration sensitivity:       | 10Hz to 2000Hz, 1.5mm,<br>198m/s <sup>2</sup> (20G) duration 6 hours                             |
| *Bump severity:               | 390m/s <sup>2</sup> (40G), 4000 ±10 bumps                                                        |
| *Shock severity:              | 981m/s <sup>2</sup> (100G) for 6ms in Z axis<br>490m/s <sup>2</sup> (50G) for 11ms in X & Y axes |
| *Acceleration severity:       | 490m/s <sup>2</sup> (50G)                                                                        |

\* Tested with latched connectors.

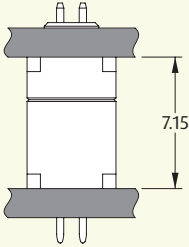
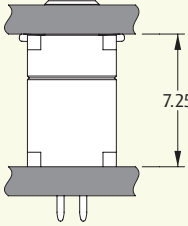
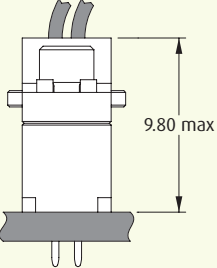
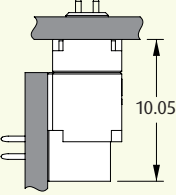
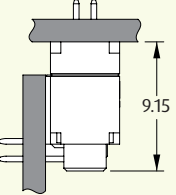
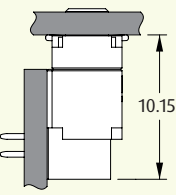
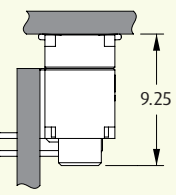
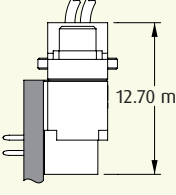
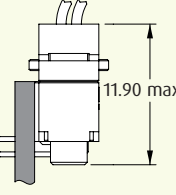
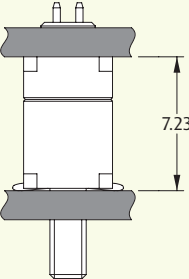
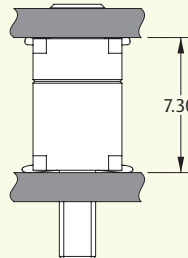
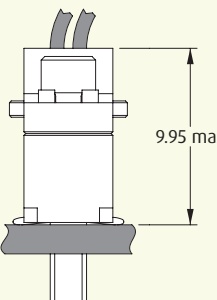
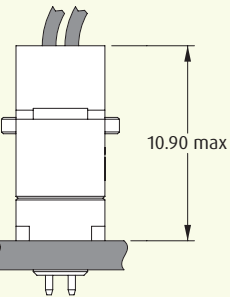
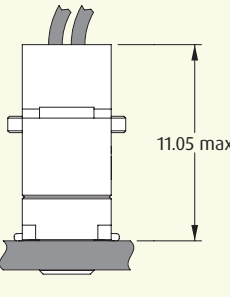
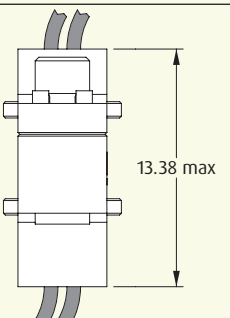
# Pin Numbering



All dimensions in mm.

Patent Published

# Gecko-SL Mating Profiles

|      |                         | FEMALE                                                                                                                                                                                                         |                                                                                                                                                                                                                 |                                                                                                                                                                                                                             |
|------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                         | VERTICAL THROUGHBOARD                                                                                                                                                                                          | VERTICAL SMT                                                                                                                                                                                                    | CABLE                                                                                                                                                                                                                       |
| MALE | VERTICAL THROUGHBOARD   |  7.15                                                                                                                         |  7.25                                                                                                                         |  9.80 max                                                                                                                                |
|      | HORIZONTAL THROUGHBOARD |  10.05<br> 9.15<br>Standard      Reverse Fix |  10.15<br> 9.25<br>Standard      Reverse Fix |  12.70 max<br> 11.90 max<br>Standard      Reverse Fix |
|      | VERTICAL SMT            |  7.23                                                                                                                       |  7.30                                                                                                                       |  9.95 max                                                                                                                              |
|      | CABLE                   |  10.90 max                                                                                                                  |  11.05 max                                                                                                                  |  13.38 max                                                                                                                             |

GECKO-SL

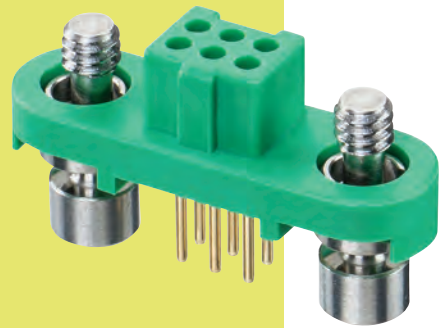
All dimensions in mm.

Patent Published

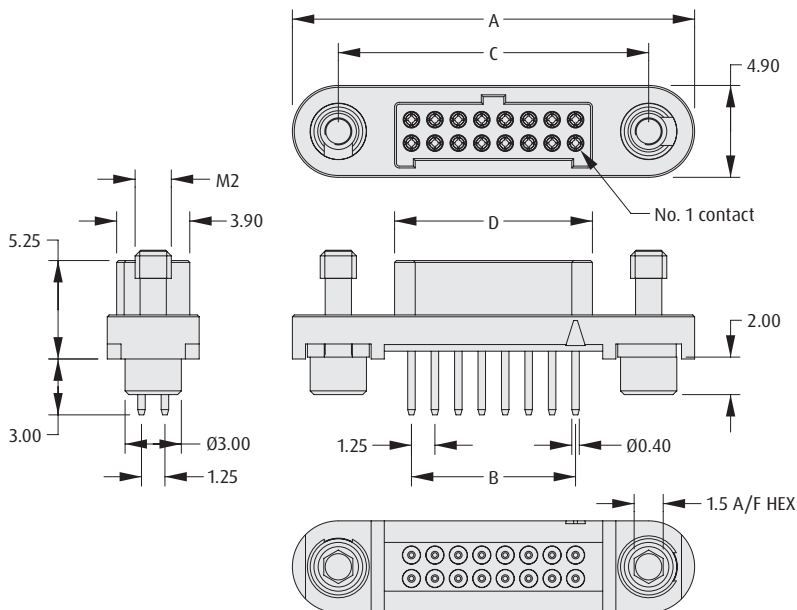
# Gecko-SL Connectors

## Female Throughboard

- ❖ 4-finger Beryllium Copper contact.
- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Positive keyway polarization features.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.

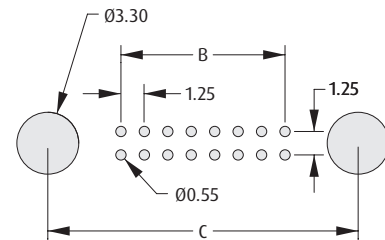


### 3mm THROUGHBOARD



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |
| <b>D</b> | $B + 1.8$                                         |



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F V1 XX 05 F1 X**

#### SERIES CODE

#### TYPE

**V1** 3mm Throughboard

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

#### FINISH

**05** Gold

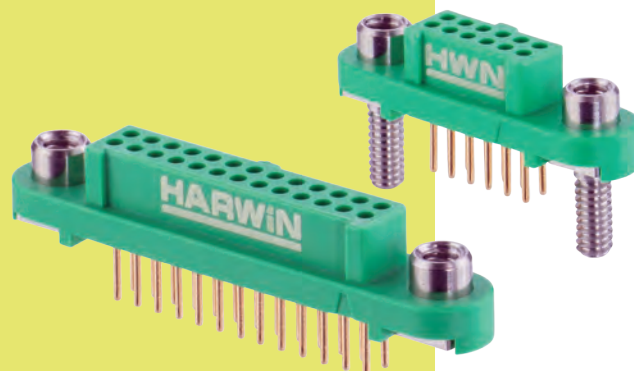
#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

# Gecko-SL Connectors

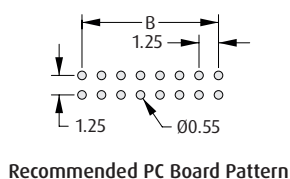
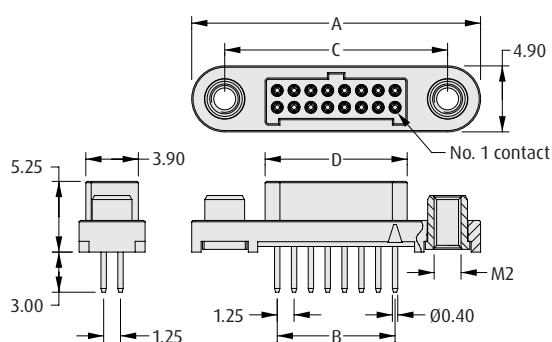
## Female Throughboard - Reverse Fix

- ❖ 4-finger Beryllium Copper contact.
- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- ❖ Order nuts for board-mount separately - see bottom of page.
- ❖ F3 Screw-Lok is compatible with board mount metal backshell G125-960 range.



GECKO-SL

### WITHOUT BOARD MOUNT

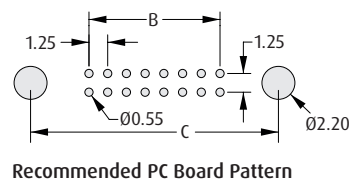
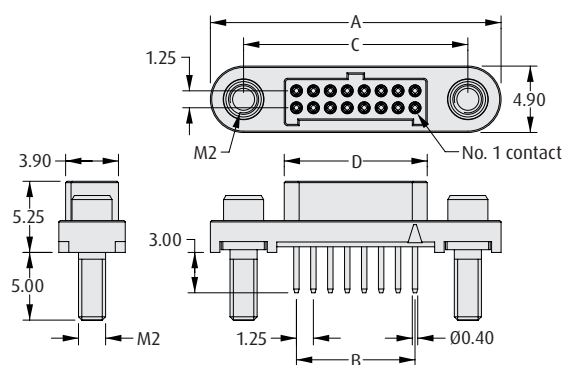


Recommended PC Board Pattern

#### CALCULATION

|   |                                     |
|---|-------------------------------------|
| A | B + 12.7                            |
| B | 0.625 x (Total No. of contacts - 2) |
| C | B + 7.8                             |
| D | B + 1.8                             |

### WITH BOARD MOUNT



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F V1 XX 05 FX X**

#### SERIES CODE

#### TYPE

**V1** 3mm Throughboard

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

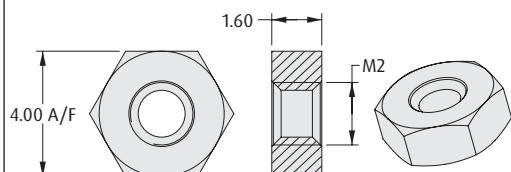
#### SCREW-LOK

|           |                           |
|-----------|---------------------------|
| <b>F2</b> | Internal Thread           |
| <b>F3</b> | With 5mm Board Mount stud |

### REQUIRED HARDWARE

Order separately from connector

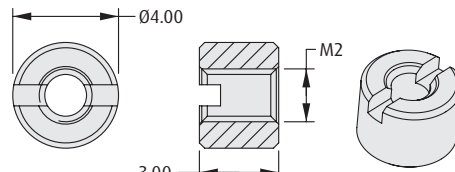
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-4500000B**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-4510000B**

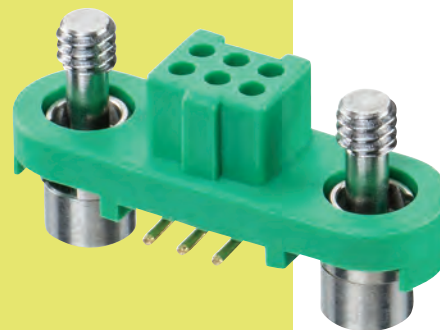
All dimensions in mm.

Patent Published

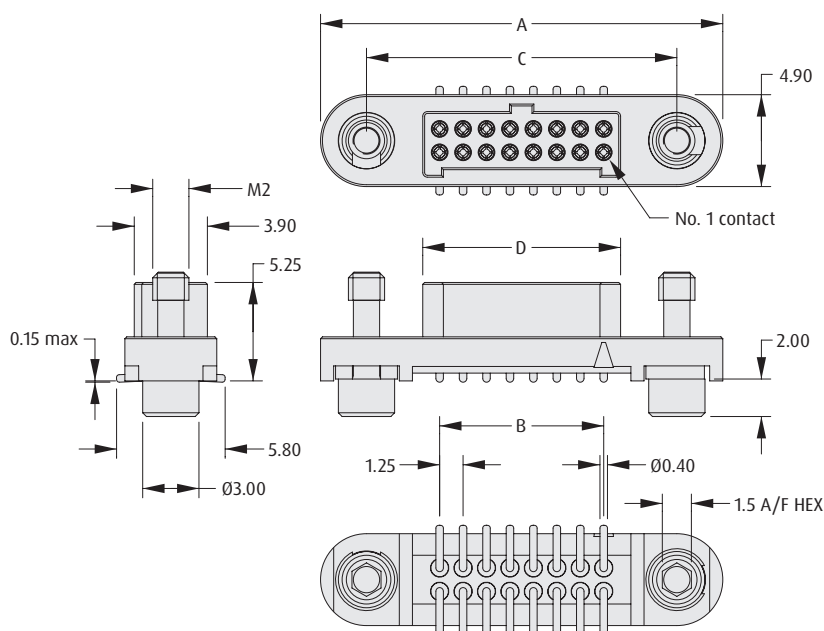
# Gecko-SL Connectors

## Female Surface Mount

- ❖ 4-finger Beryllium Copper contact.
- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Positive keyway polarization features.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Available in Tape and Reel Packaging, with Pick and Place cap.

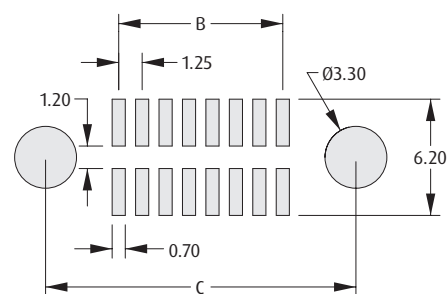


### SURFACE MOUNT



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |
| <b>D</b> | $B + 1.8$                                         |



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F S1 XX 05 F1 X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

#### FINISH

**05** Gold

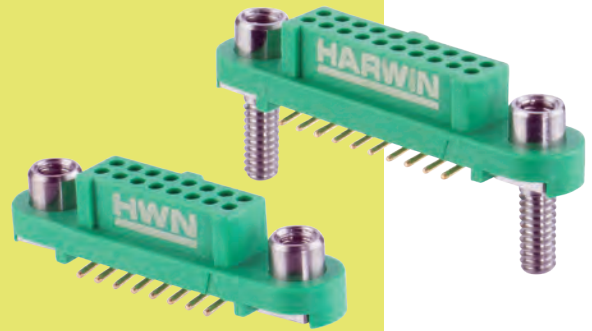
#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

# Gecko-SL Connectors

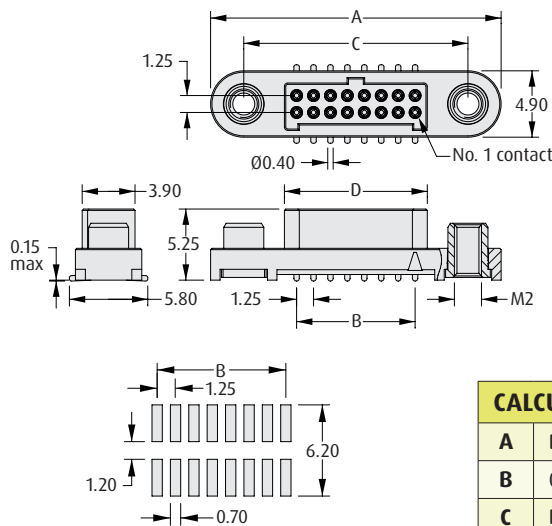
## Female Surface Mount - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- ❖ Order nuts for board-mount separately - see bottom of page.
- ❖ Available in Tape and Reel Packaging, with Pick and Place cap.



GECKO-SL

### WITHOUT BOARD MOUNT

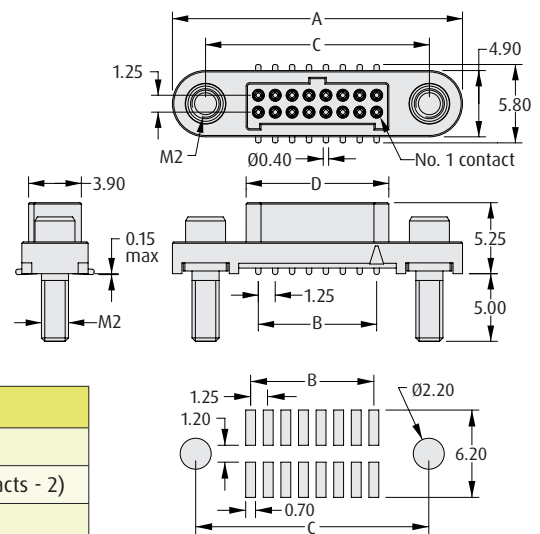


Recommended PC Board Pattern

#### CALCULATION

|   |                                     |
|---|-------------------------------------|
| A | B + 12.7                            |
| B | 0.625 x (Total No. of contacts - 2) |
| C | B + 7.8                             |
| D | B + 1.8                             |

### WITH BOARD MOUNT



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F S1 XX 05 FX X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

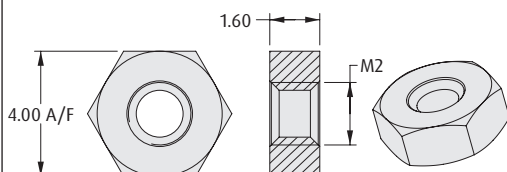
#### SCREW-LOK

|           |                           |
|-----------|---------------------------|
| <b>F2</b> | Internal Thread           |
| <b>F3</b> | With 5mm Board Mount stud |

### REQUIRED HARDWARE

Order separately from connector

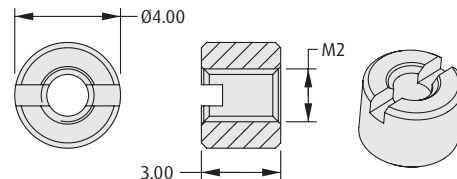
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-4500000B**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-4510000B**

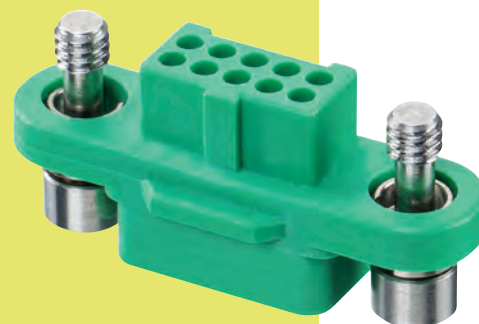
All dimensions in mm.

Patent Published

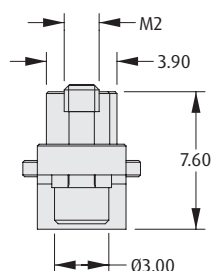
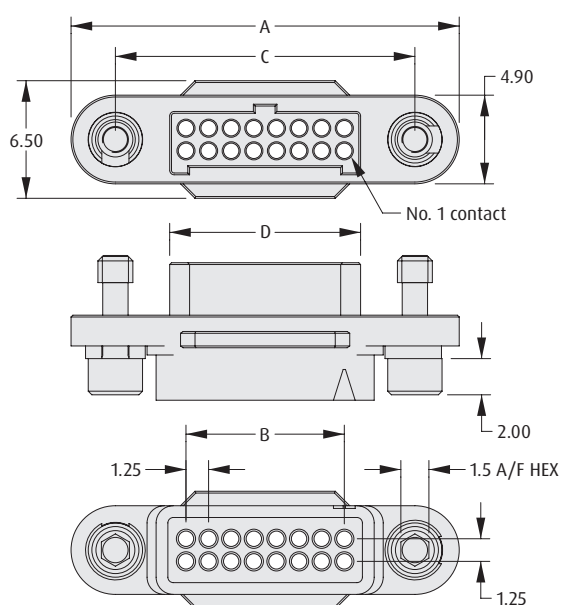
# Gecko-SL Connectors

## Female Crimp Housings

- Features 2.5mm potting wall for extra security.
- No. 1 position identified on housing.
- 3 polarizing points on each housing prevent mis-mating.
- Use 00 Screw-Lok version (without fixings) with G125-964xxF1 metal hood / backshell, shown on a following page.



### FEMALE



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |
| <b>D</b> | $B + 1.8$                                         |

### TOOLS

**Recommended Crimp Tool** - Z125-900

**Positioner** - Z125-901

**Contact Insertion/Removal Tool** - Z125-902

Female contacts shown on a following page.

Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

|                                       |                            |                                             |
|---------------------------------------|----------------------------|---------------------------------------------|
| <b>SERIES CODE</b>                    | <b>G125 - 224 XX 96 XX</b> | <b>SCREW-LOK</b>                            |
| <b>TYPE</b>                           |                            | <b>F1</b> Floating Hex Socket fixings       |
| <b>224</b> Female Housing             |                            | <b>00</b> No fixings (use with Metal Hoods) |
| <b>TOTAL NO. OF CONTACTS</b>          |                            | <b>FINISH</b>                               |
| <b>06, 10, 12, 16, 20, 26, 34, 50</b> |                            | <b>96</b> Housing                           |

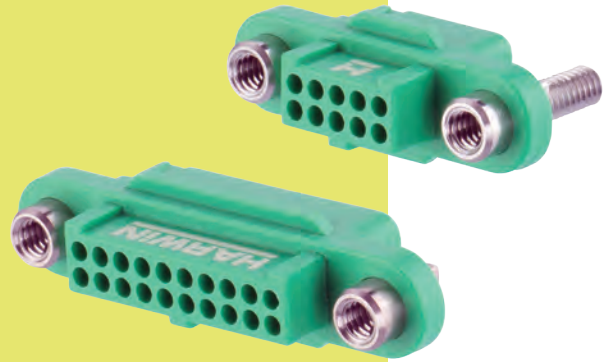
All dimensions in mm.

Patent Published

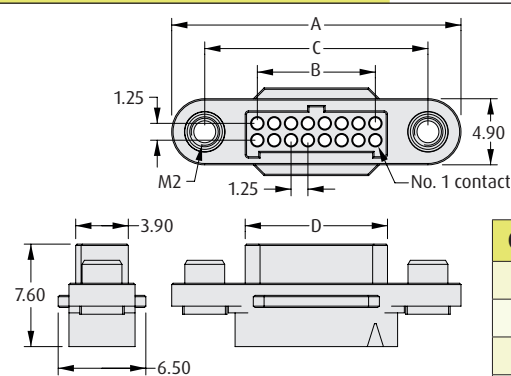
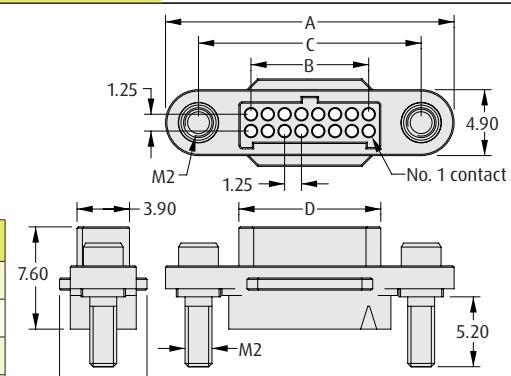
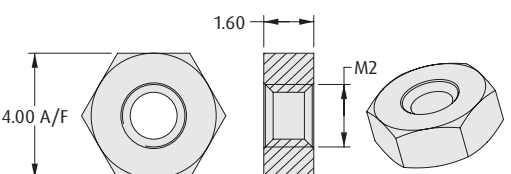
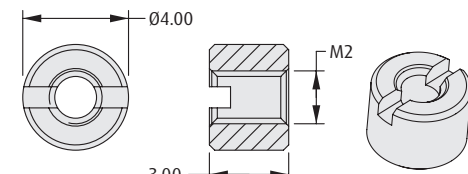
# Gecko-SL Connectors

## Female Crimp Housings - Reverse Fix

- Features 2.5mm potting wall for extra security.
- F3 Screw-Lok is compatible with panel mount metal backshell G125-960 range.
- Stainless steel screw fixing mates to applicable male connector fitted with floating screw-loks.
- Order nuts for panel mount separately - see bottom of page.



GECKO-SL

| WITHOUT PANEL MOUNT                                                                                                                                                                                                               |                                     | WITH PANEL MOUNT                                                                                                                                                       |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------|---------|-----------|-----------------|-----------|-----------------------------|
|                                                                                                                                                 |                                     |                                                                                     |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <table><tr><th colspan="2">CALCULATION</th></tr><tr><td>A</td><td>B + 12.7</td></tr><tr><td>B</td><td>0.625 x (Total No. of contacts - 2)</td></tr><tr><td>C</td><td>B + 7.8</td></tr><tr><td>D</td><td>B + 1.8</td></tr></table> |                                     | CALCULATION                                                                                                                                                            |                      | A                                                                                                                                                                                                            | B + 12.7       | B                                                                                                                                                                        | 0.625 x (Total No. of contacts - 2) | C         | B + 7.8 | D         | B + 1.8         |           |                             |
| CALCULATION                                                                                                                                                                                                                       |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| A                                                                                                                                                                                                                                 | B + 12.7                            |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| B                                                                                                                                                                                                                                 | 0.625 x (Total No. of contacts - 2) |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| C                                                                                                                                                                                                                                 | B + 7.8                             |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| D                                                                                                                                                                                                                                 | B + 1.8                             |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| HOW TO ORDER                                                                                                                                                                                                                      |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <p><b>G125 - 224 XX 96 FX</b></p>                                                                                                                                                                                                 |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <table><tr><th colspan="2">SERIES CODE</th></tr><tr><td><b>224</b></td><td>Female Housing</td></tr></table>                                                                                                                       |                                     | SERIES CODE                                                                                                                                                            |                      | <b>224</b>                                                                                                                                                                                                   | Female Housing | <table><tr><th colspan="2">SCREW-LOK</th></tr><tr><td><b>F2</b></td><td>Internal Thread</td></tr><tr><td><b>F3</b></td><td>With 5.2mm Panel Mount stud</td></tr></table> |                                     | SCREW-LOK |         | <b>F2</b> | Internal Thread | <b>F3</b> | With 5.2mm Panel Mount stud |
| SERIES CODE                                                                                                                                                                                                                       |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <b>224</b>                                                                                                                                                                                                                        | Female Housing                      |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| SCREW-LOK                                                                                                                                                                                                                         |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <b>F2</b>                                                                                                                                                                                                                         | Internal Thread                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <b>F3</b>                                                                                                                                                                                                                         | With 5.2mm Panel Mount stud         |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <table><tr><th colspan="2">TOTAL NO. OF CONTACTS</th></tr><tr><td><b>06, 10, 12, 16, 20, 26, 34, 50</b></td><td></td></tr></table>                                                                                                |                                     | TOTAL NO. OF CONTACTS                                                                                                                                                  |                      | <b>06, 10, 12, 16, 20, 26, 34, 50</b>                                                                                                                                                                        |                | <table><tr><th colspan="2">FINISH</th></tr><tr><td><b>96</b></td><td>Housing</td></tr></table>                                                                           |                                     | FINISH    |         | <b>96</b> | Housing         |           |                             |
| TOTAL NO. OF CONTACTS                                                                                                                                                                                                             |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <b>06, 10, 12, 16, 20, 26, 34, 50</b>                                                                                                                                                                                             |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| FINISH                                                                                                                                                                                                                            |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <b>96</b>                                                                                                                                                                                                                         | Housing                             |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| TOOLS                                                                                                                                                                                                                             |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <p><b>Recommended Crimp Tool</b> - Z125-900</p> <p><b>Positioner</b> - Z125-901</p> <p><b>Contact Insertion/Removal Tool</b> - Z125-902</p>                                                                                       |                                     | <p>Female contacts shown on a following page.</p> <p>Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</p> |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| REQUIRED HARDWARE                                                                                                                                                                                                                 |                                     | Order separately from connector                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <p><b>Hexagonal Board Mount Nut</b></p>  <table><tr><th>ORDER CODE</th></tr><tr><td><b>G125-4500000B</b></td></tr></table>                     |                                     | ORDER CODE                                                                                                                                                             | <b>G125-4500000B</b> | <p><b>Slotted Board Mount Nut</b></p>  <table><tr><th>ORDER CODE</th></tr><tr><td><b>G125-4510000B</b></td></tr></table> |                | ORDER CODE                                                                                                                                                               | <b>G125-4510000B</b>                |           |         |           |                 |           |                             |
| ORDER CODE                                                                                                                                                                                                                        |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <b>G125-4500000B</b>                                                                                                                                                                                                              |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| ORDER CODE                                                                                                                                                                                                                        |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |
| <b>G125-4510000B</b>                                                                                                                                                                                                              |                                     |                                                                                                                                                                        |                      |                                                                                                                                                                                                              |                |                                                                                                                                                                          |                                     |           |         |           |                 |           |                             |

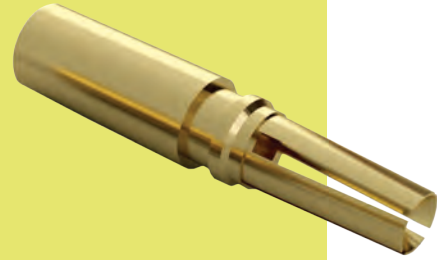
All dimensions in mm.

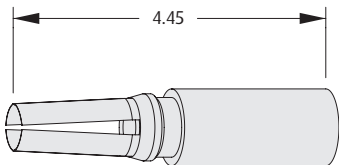
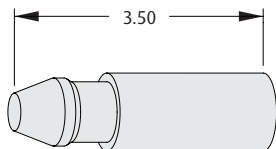
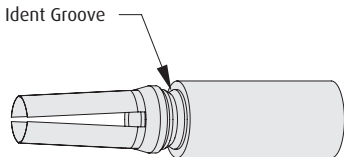
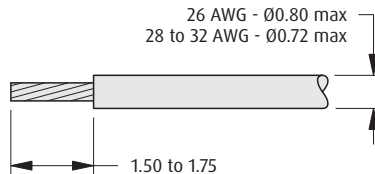
Patent Published

# Gecko-SL Connectors

## Female Crimp Contacts, Dummy Contact

- ❖ 4-finger Beryllium Copper contact on a female connector.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



| CONTACTS                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                | DUMMY CONTACT                                                                                                                                                                                                                                    |  |      |  |     |                             |     |                                |     |                               |    |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|--|-----|-----------------------------|-----|--------------------------------|-----|-------------------------------|----|------|
| <div>26 AWG</div> <div></div>                                                                                                                                                                                                                                                                                                                                      |                                | <div></div>                                                                                                                                                   |  |      |  |     |                             |     |                                |     |                               |    |      |
| <div>28 – 32 AWG</div> <div></div>                                                                                                                                                                                                                                                                                                                               |                                | WIRE STRIPPING DETAILS                                                                                                                                                                                                                           |  |      |  |     |                             |     |                                |     |                               |    |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                | <div></div>                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
| TOOLS                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                |                                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
| <div>Recommended Crimp Tool – Z125-900</div> <div>Positioner – Z125-901</div> <div>Contact Insertion/Removal Tool – Z125-902</div>                                                                                                                                                                                                                                                                                                                  |                                | <div>❖ Female crimp housings shown on previous pages.</div> <div>❖ Pre-cabled contacts shown on following page.</div> <div>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</div> |  |      |  |     |                             |     |                                |     |                               |    |      |
| HOW TO ORDER                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
| <div><div><div>SERIES CODE</div><table><tr><th>TYPE</th><td></td></tr><tr><td>001</td><td>Female 26 AWG crimp contact</td></tr><tr><td>002</td><td>Female 28-32 AWG crimp contact</td></tr><tr><td>020</td><td>Dummy Contact (blanking plug)</td></tr></table></div><div><div>G125 – 0XX 00 05</div><div><div></div><div></div><div></div><div></div></div><div><div>FINISH</div><table><tr><td>05</td><td>Gold</td></tr></table></div></div></div> |                                |                                                                                                                                                                                                                                                  |  | TYPE |  | 001 | Female 26 AWG crimp contact | 002 | Female 28-32 AWG crimp contact | 020 | Dummy Contact (blanking plug) | 05 | Gold |
| TYPE                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                |                                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
| 001                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Female 26 AWG crimp contact    |                                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
| 002                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Female 28-32 AWG crimp contact |                                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
| 020                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Dummy Contact (blanking plug)  |                                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
| 05                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Gold                           |                                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |

All dimensions in mm.

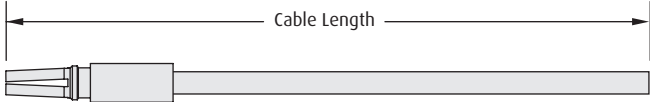
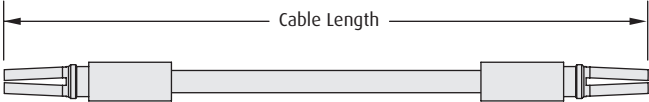
Patent Published

# Gecko-SL Connectors

## Female Crimp Contacts – Pre-Crimped Wires

- ❖ 4-finger Beryllium Copper contact.
- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



| FEMALE SINGLE ENDED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      | FEMALE – FEMALE                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|--------|-----------|--------|-----------|--------|-----------|-------|----------|---------------|----------|--------|-------------|-------|-------------|----------------------|-------------|----------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                                                                                                                  |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| TOOLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>Contact Insertion/Removal Tool</b> – Z125-902                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      | <ul style="list-style-type: none"><li>❖ Female crimp housings and loose contacts shown on previous pages.</li><li>❖ Instruction sheets available at <b><a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a></b>.</li></ul> |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| HOW TO ORDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <div><div><div><b>SERIES CODE</b></div><div><b>G125</b></div></div><div><div><b>GENDER - FIRST END</b></div><div><b>F</b> Female</div></div><div><div><b>CABLE SIZE</b></div><div><table><tr><td><b>W1</b></td><td>26 AWG</td></tr><tr><td><b>W2</b></td><td>28 AWG</td></tr><tr><td><b>W3</b></td><td>30 AWG</td></tr></table></div></div><div><div><b>CABLE COLOR</b></div><div><table><tr><td><b>94</b></td><td>White</td></tr></table></div></div><div><div><b>TERMINATION - SECOND END</b></div><div><table><tr><td><b>L</b></td><td>Loose cut end</td></tr><tr><td><b>F</b></td><td>Female</td></tr></table></div></div><div><div><b>CABLE LENGTH</b></div><div><table><tr><td><b>0150</b></td><td>150mm</td></tr><tr><td><b>0300</b></td><td>300mm (double-ended)</td></tr><tr><td><b>0450</b></td><td>450mm (single-ended)</td></tr></table></div></div></div> <div><b>G125 – F WX XXXX X 94</b></div> |                      |                                                                                                                                                                                                                                                    |  | <b>W1</b> | 26 AWG | <b>W2</b> | 28 AWG | <b>W3</b> | 30 AWG | <b>94</b> | White | <b>L</b> | Loose cut end | <b>F</b> | Female | <b>0150</b> | 150mm | <b>0300</b> | 300mm (double-ended) | <b>0450</b> | 450mm (single-ended) |
| <b>W1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 26 AWG               |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>W2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 28 AWG               |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>W3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30 AWG               |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>94</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | White                |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>L</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Loose cut end        |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>F</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Female               |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>0150</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 150mm                |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>0300</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 300mm (double-ended) |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>0450</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 450mm (single-ended) |                                                                                                                                                                                                                                                    |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |

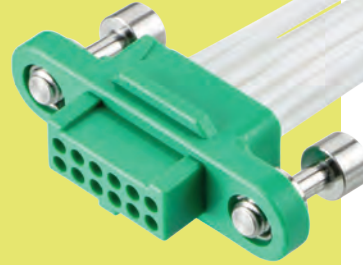
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Cable Assemblies

- ❑ 4-finger Beryllium Copper contact.
- ❑ No.1 position identified on housing.
- ❑ Stainless steel screw fixing to mate with applicable male connector.
- ❑ Back potted for added strain relief.
- ❑ Check website or Ask an Expert for available combinations.



### PART NUMBERING SYSTEM

**G125 - F X X XX XX FX - XXXX XX**

#### SERIES CODE

#### GENDER - FIRST END

**F** Female

#### CABLE STYLE

**C** Standard Cables

**D** Twisted Pairs

#### CABLE SIZE

**1** 26 AWG

**2** 28 AWG

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### TERMINATION - SECOND END

**L** Loose cut end

**F0, F1, F2 or F3** Female connector (same as First End)

#### CABLE LENGTH

**0150** 150mm

**0300** 300mm (double-ended)

**0450** 450mm (single-ended)

**XXXX** XXXXmm

#### SCREW-LOK

**F0** No fixings (use with Metal Hoods)

**F1** Floating Hex Socket fixings

**F2** Internal Thread (reverse fix)

**F3** With 5.2mm panel mount stud (reverse fix)

#### CABLE COLOR / BRAID

**05** White cable

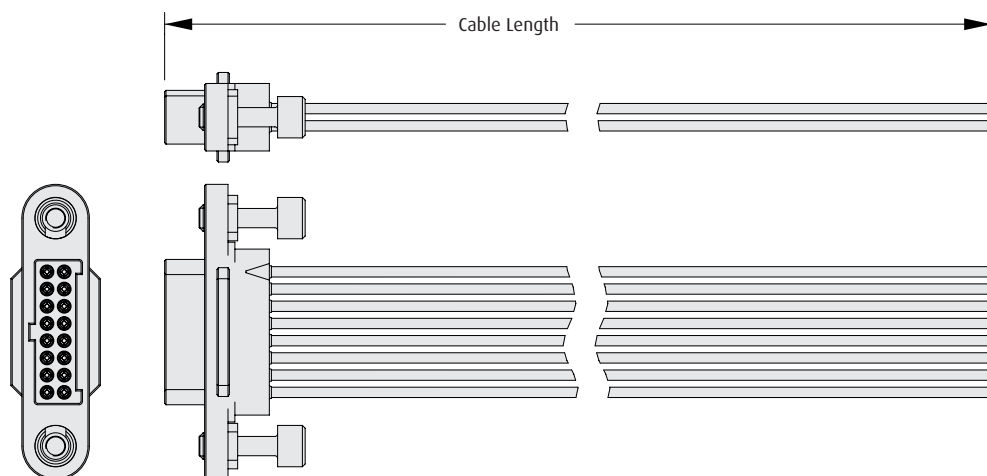
**68** Multicolor cable (single-ended)

**69** Shielded assembly (with metal backshells & braid)

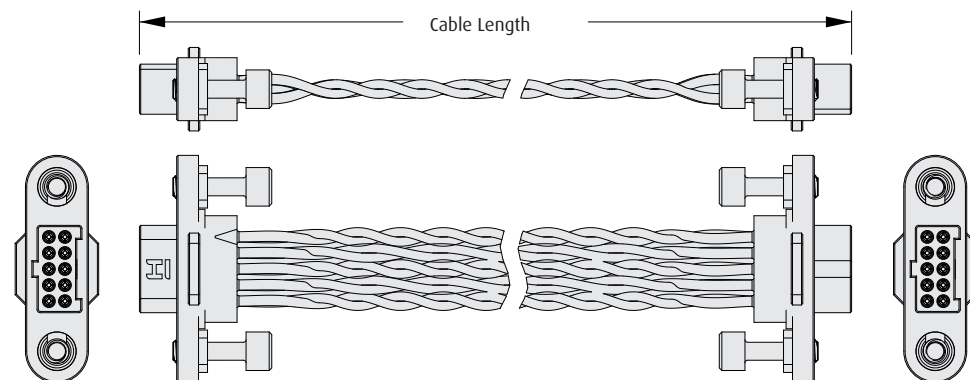
# Gecko-SL Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the connector.

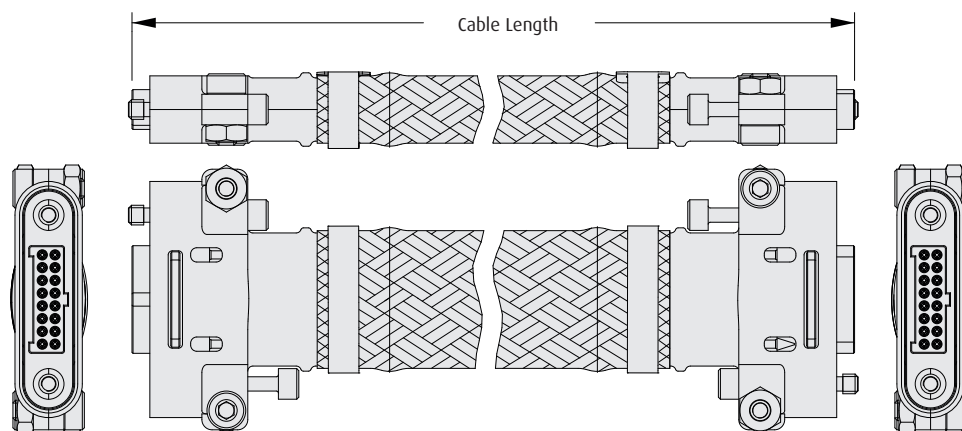
## FEMALE SINGLE ENDED



## FEMALE - FEMALE WITH TWISTED PAIRS



## FEMALE - FEMALE WITH SHIELDING



All dimensions in mm.

Patent Published

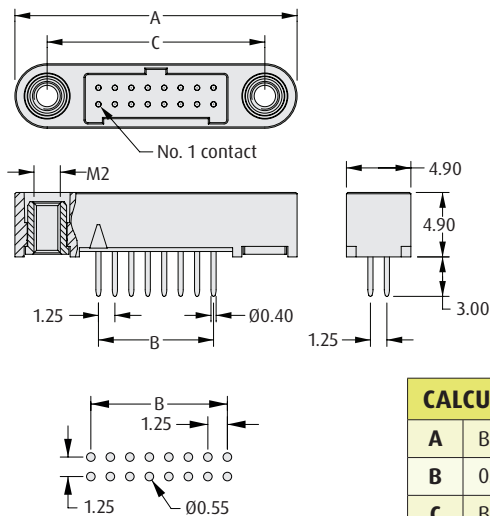
# Gecko-SL Connectors

## Male Vertical Throughboard

- Stainless steel screw fixing to mate with applicable female connector.
- Order nuts for board-mount separately - see bottom of page.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



### WITHOUT BOARD MOUNT

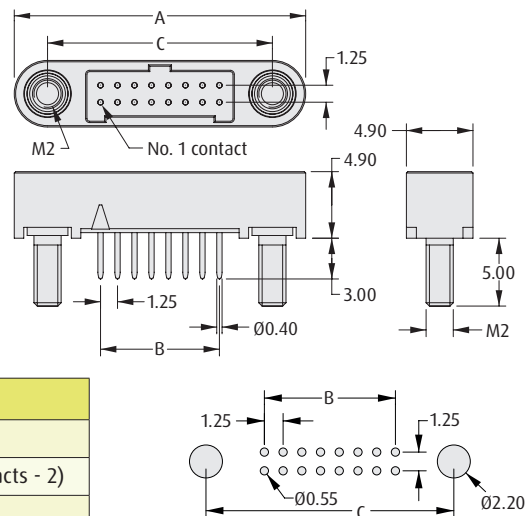


Recommended PC Board Pattern

#### CALCULATION

|   |                                     |
|---|-------------------------------------|
| A | B + 12.7                            |
| B | 0.625 x (Total No. of contacts - 2) |
| C | B + 7.8                             |
| D | B + 1.8                             |

### WITH BOARD MOUNT



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M V1 XX 05 MX X**

#### SERIES CODE

#### TYPE

**V1** 3mm Throughboard

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

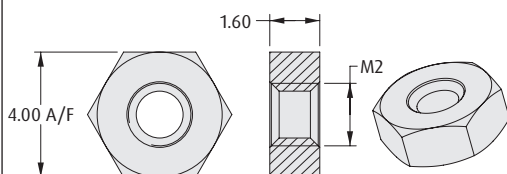
#### SCREW-LOK

|           |                           |
|-----------|---------------------------|
| <b>M1</b> | Internal Thread           |
| <b>M2</b> | With 5mm Board Mount Stud |

### REQUIRED HARDWARE

Order separately from connector

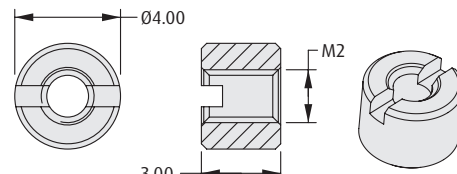
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-4500000B**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-4510000B**

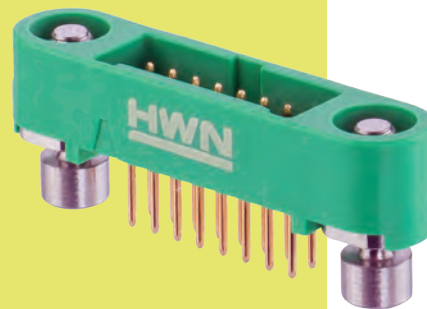
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

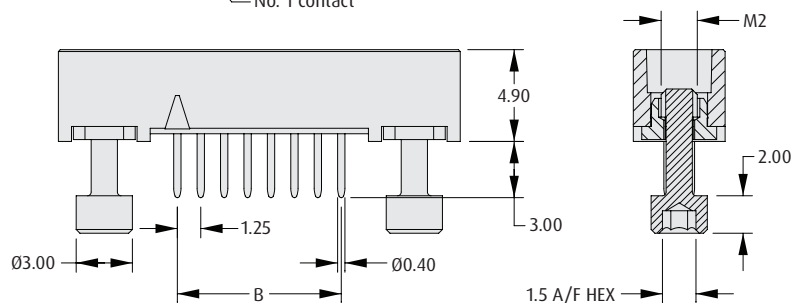
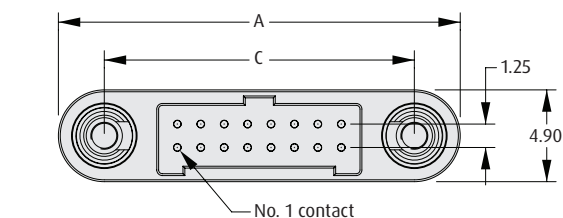
## Male Vertical Throughboard - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ No. 1 position identified on housing.



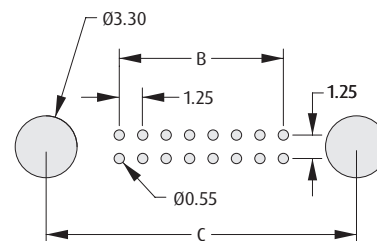
GECKO-SL

### THROUGHBOARD



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M V1 XX 05 M3 X**

#### SERIES CODE

#### TYPE

**V1** 3mm Throughboard

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

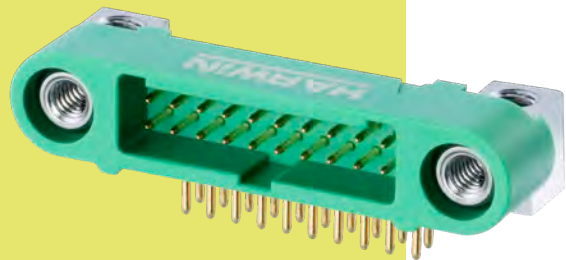
#### FINISH

**05** Gold

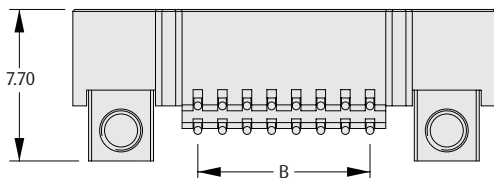
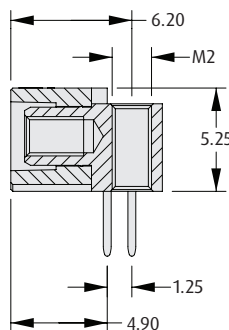
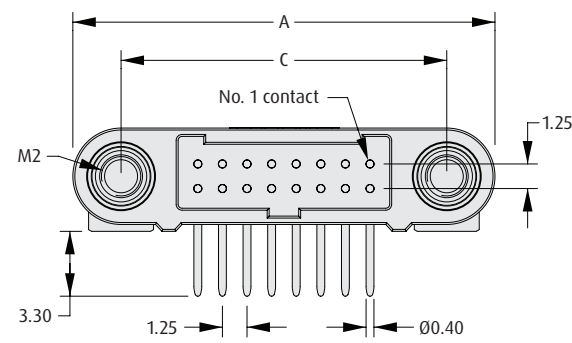
# Gecko-SL Connectors

## Male Horizontal Throughboard

- ❖ Stainless steel screw fixing to mate with floating screw-loks on female connectors, also with board mount thread.
- ❖ Order bolts for board-mount separately.
- ❖ If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.

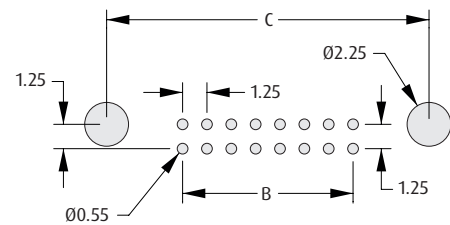


### THROUGHBOARD



### CALCULATION

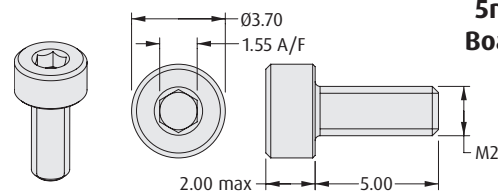
|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |



Recommended PC Board Pattern

### REQUIRED HARDWARE

Order separately from connector



**5mm Hex Socket  
Board Mount Bolt**

### ORDER CODE

**G125-4520000B**

### HOW TO ORDER

**G125 - M H1 XX 05 M4 X**

#### SERIES CODE

#### TYPE

**H1** 3mm Throughboard

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

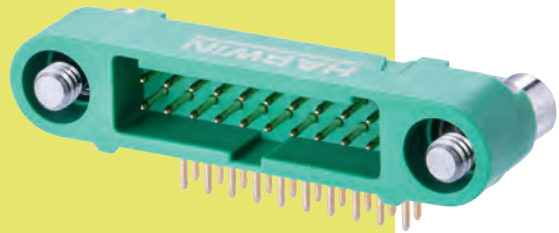
#### FINISH

**05** Gold

# Gecko-SL Connectors

## Male Horizontal Throughboard - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ No. 1 position identified on housing.
- ❖ If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.

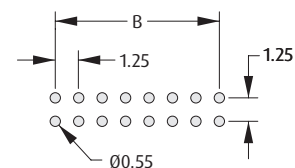
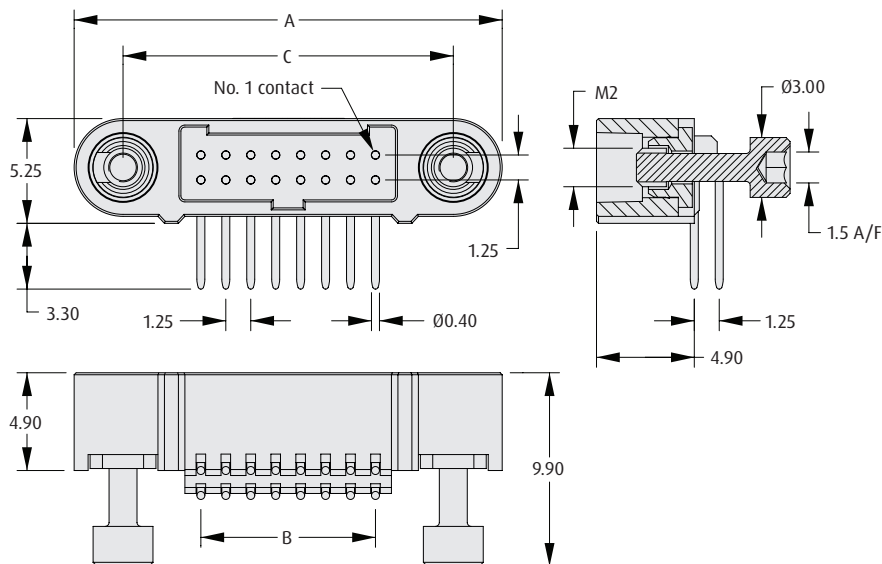


GECKO-SL

### THROUGHBOARD

### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M H1 XX 05 M3 X**

#### SERIES CODE

#### TYPE

**H1** 3mm Throughboard

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

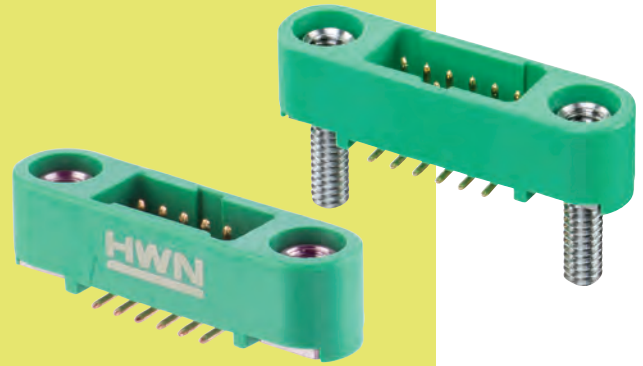
#### FINISH

**05** Gold

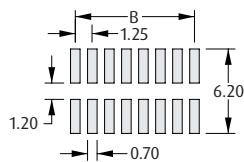
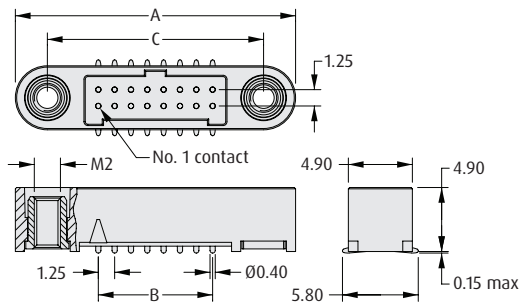
# Gecko-SL Connectors

## Male Vertical Surface Mount

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ Order nuts for board-mount separately - see bottom of page.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



### WITHOUT BOARD MOUNT

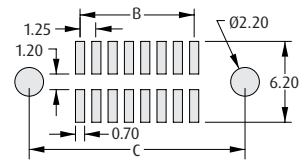
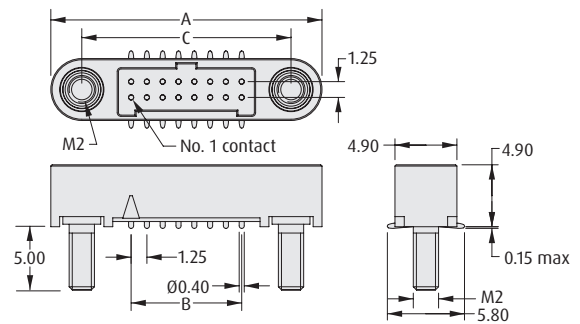


Recommended PC Board Pattern

#### CALCULATION

|   |                                                   |
|---|---------------------------------------------------|
| A | $B + 12.7$                                        |
| B | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| C | $B + 7.8$                                         |
| D | $B + 1.8$                                         |

### WITH BOARD MOUNT



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M S1 XX 05 MX X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

**R** Tape & Reeled

**P** Tape & Reel strips

#### SCREW-LOK

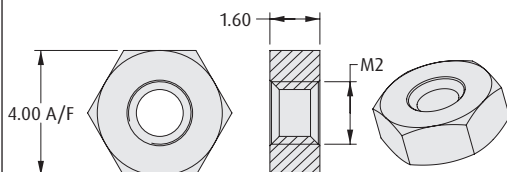
**M1** Internal Thread

**M2** With 5mm Board Mount Stud

### REQUIRED HARDWARE

Order separately from connector

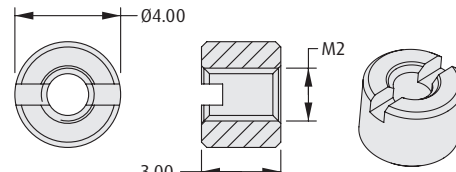
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-4500000B**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-4510000B**

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

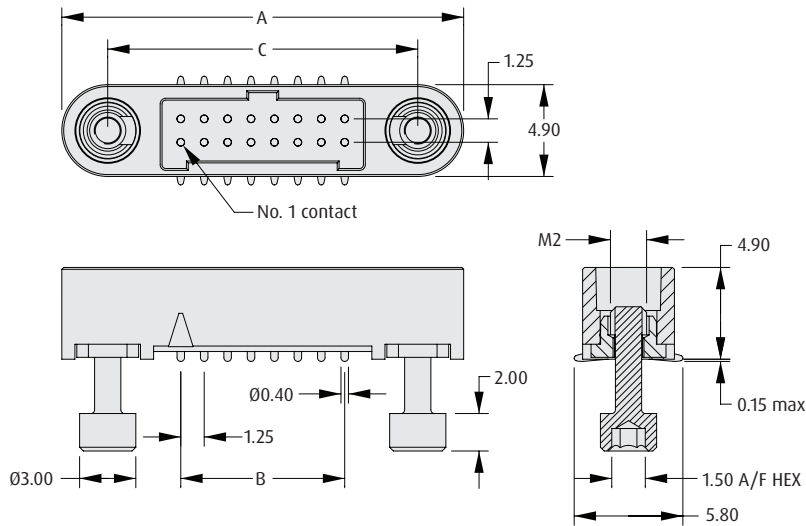
## Male Vertical Surface Mount - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.



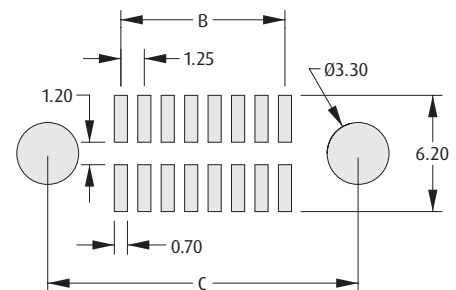
GECKO-SL

### SURFACE MOUNT



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M S1 XX 05 M3 X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

#### FINISH

**05** Gold

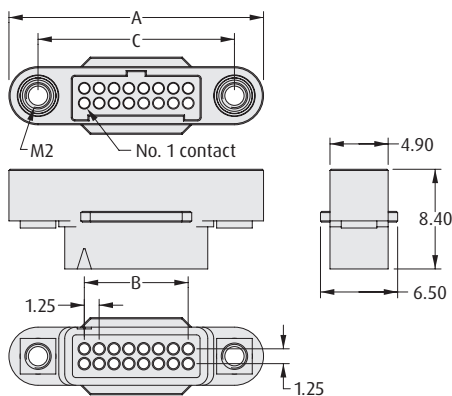
# Gecko-SL Connectors

## Male Crimp Housing

- Features 2.5mm potting wall for extra security.
- No. 1 position identified on housing.
- 3 polarizing points on each housing prevent mis-mating.
- Housing without fixings can be used with G125-964xxF1 metal hoods / backshells for reverse fix screw-lok.
- Order nuts for panel mount separately - see bottom of page.



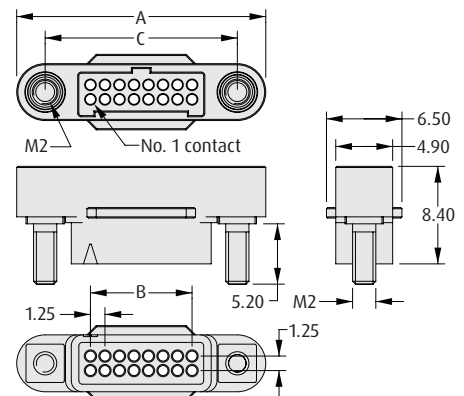
### WITHOUT PANEL MOUNT



#### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |

### WITH PANEL MOUNT



### HOW TO ORDER

**G125 - 324 XX 96 XX**

#### SERIES CODE

#### TYPE

**324** Male Housing

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### SCREW-LOK

|           |                                   |
|-----------|-----------------------------------|
| <b>M1</b> | Internal Thread                   |
| <b>M2</b> | With 5.2mm Panel Mount stud       |
| <b>00</b> | No fixings (use with metal hoods) |

#### FINISH

**96** Housing

### TOOLS

**Recommended Crimp Tool** - Z125-900

**Positioner** - Z125-901

**Contact Insertion/Removal Tool** - Z125-902

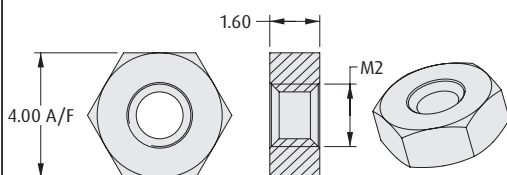
Male contacts shown on a following page.

Instruction sheets available at  
[www.harwin.com/instructions](http://www.harwin.com/instructions).

### REQUIRED HARDWARE

Order separately from connector

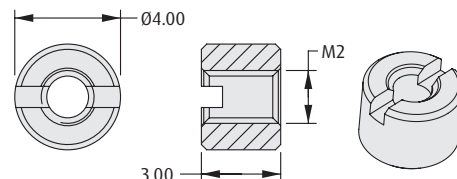
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-4500000B**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-4510000B**

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Male Crimp Housing - Reverse Fix

- ❖ Features 2.5mm potting wall for extra security.
- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.

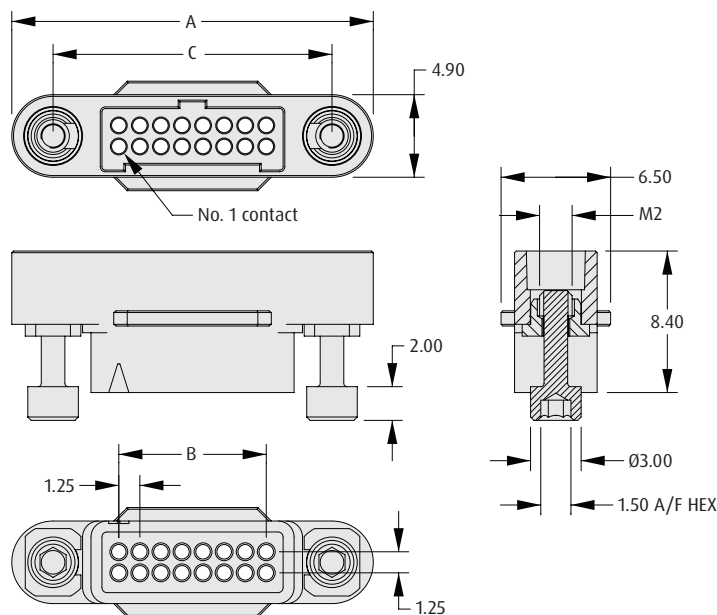


GECKO-SL

### MALE

### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 12.7$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |



### TOOLS

**Recommended Crimp Tool** - Z125-900

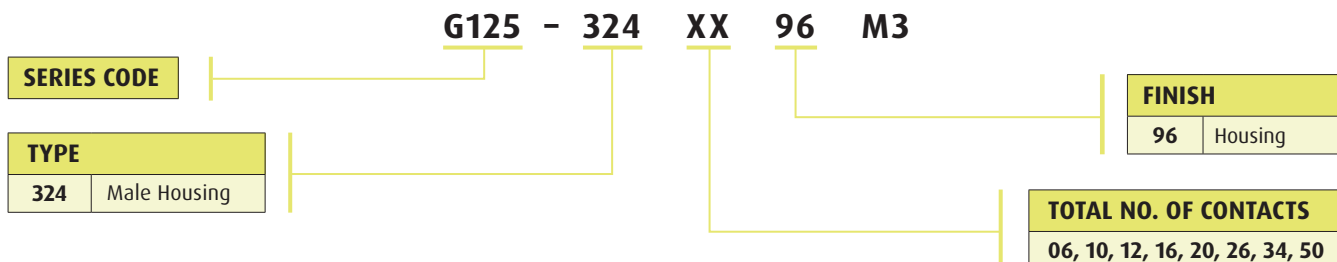
**Positioner** - Z125-901

**Contact Insertion/Removal Tool** - Z125-902

❖ Male contacts shown on following page.

❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER



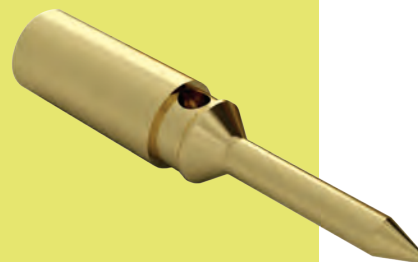
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

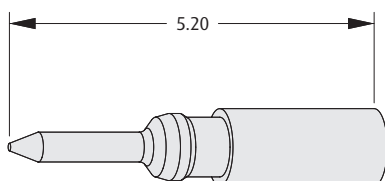
## Male Crimp Contacts, Dummy Contact

- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.

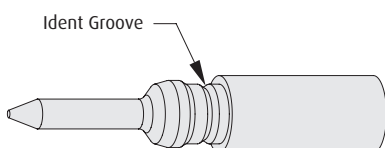


### CONTACTS

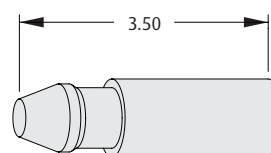
26 AWG



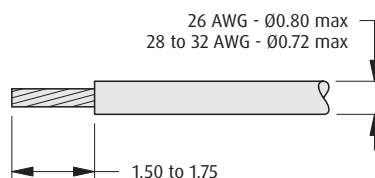
28 - 32 AWG



### DUMMY CONTACT



### WIRE STRIPPING DETAILS



### TOOLS

**Recommended Crimp Tool** - Z125-900

**Positioner** - Z125-901

**Contact Insertion/Removal Tool** - Z125-902

- ❖ Male crimp housings shown on previous pages.
- ❖ Pre-cabled contacts shown on following page.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - XXX 00 05**

**SERIES CODE**

**TYPE**

|            |                               |
|------------|-------------------------------|
| <b>101</b> | Male 26 AWG crimp contact     |
| <b>102</b> | Male 28-32 AWG crimp contact  |
| <b>020</b> | Dummy Contact (blanking plug) |

**FINISH**

**05** Gold

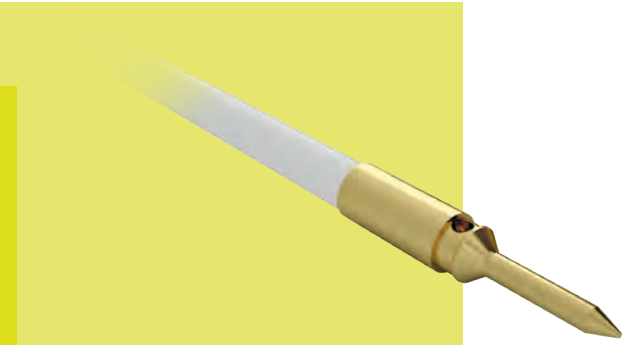
All dimensions in mm.

Patent Published

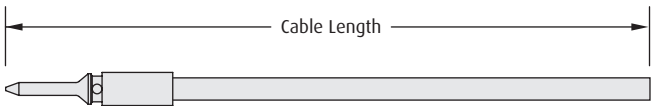
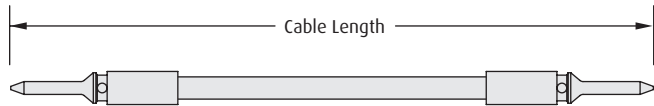
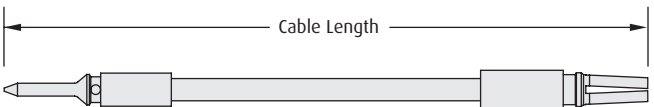
# Gecko-SL Connectors

## Male Crimp Contacts – Pre-Crimped Wires

- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



GECKO-SL

| MALE SINGLE ENDED                                                                   | MALE – MALE                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                                                                                                                                                                                   |
| MALE – FEMALE                                                                       | TOOLS                                                                                                                                                                                                                                                                                                                                                               |
|  | <p><b>Contact Insertion/Removal Tool</b> – Z125-902</p> <ul style="list-style-type: none"> <li>❖ Male crimp housings and loose contacts shown on previous pages.</li> <li>❖ &gt; Full cable assemblies shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul> |

### HOW TO ORDER

**G125 – M WX XXXX X 94**

#### SERIES CODE

#### GENDER – FIRST END

**M** Male

#### CABLE SIZE

|           |                 |
|-----------|-----------------|
| <b>W1</b> | 26 AWG (signal) |
| <b>W2</b> | 28 AWG (signal) |
| <b>W3</b> | 30 AWG (signal) |

#### CABLE COLOR

**94** White

#### TERMINATION – SECOND END

|          |               |
|----------|---------------|
| <b>L</b> | Loose cut end |
| <b>F</b> | Female        |
| <b>M</b> | Male          |

#### CABLE LENGTH

|             |                      |
|-------------|----------------------|
| <b>0150</b> | 150mm                |
| <b>0300</b> | 300mm (double-ended) |
| <b>0450</b> | 450mm (single-ended) |

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Male Cable Assemblies

- ❑ No. 1 position identified on housing.
- ❑ Stainless steel screw fixing to mate with applicable male connector.
- ❑ Back potted for added strain relief.
- ❑ Check website or Ask an Expert for available combinations.



### PART NUMBERING SYSTEM

**G125 - M X X XX XX MX - XXXX XX**

#### SERIES CODE

#### GENDER - FIRST END

**M** Male

#### CABLE STYLE

**C** Standard Cables  
**D** Twisted Pairs

#### CABLE SIZE

**1** 26 AWG  
**2** 28 AWG

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### TERMINATION - SECOND END

|                 |                                                       |
|-----------------|-------------------------------------------------------|
| <b>L</b>        | Loose cut end                                         |
| <b>F0</b>       | Female connector<br>No fixings (use with Metal Hoods) |
| <b>F1</b>       | Female connector<br>Floating Hex Socket fixings       |
| <b>M1 or M3</b> | Male connector (same as First end)                    |

#### CABLE LENGTH

|             |                      |
|-------------|----------------------|
| <b>0150</b> | 150mm                |
| <b>0300</b> | 300mm (double-ended) |
| <b>0450</b> | 450mm (single-ended) |
| <b>XXXX</b> | XXXXmm               |

#### SCREW-LOK

|           |                                      |
|-----------|--------------------------------------|
| <b>M1</b> | Internal thread                      |
| <b>M3</b> | Floating Hex Socket<br>(reverse fix) |

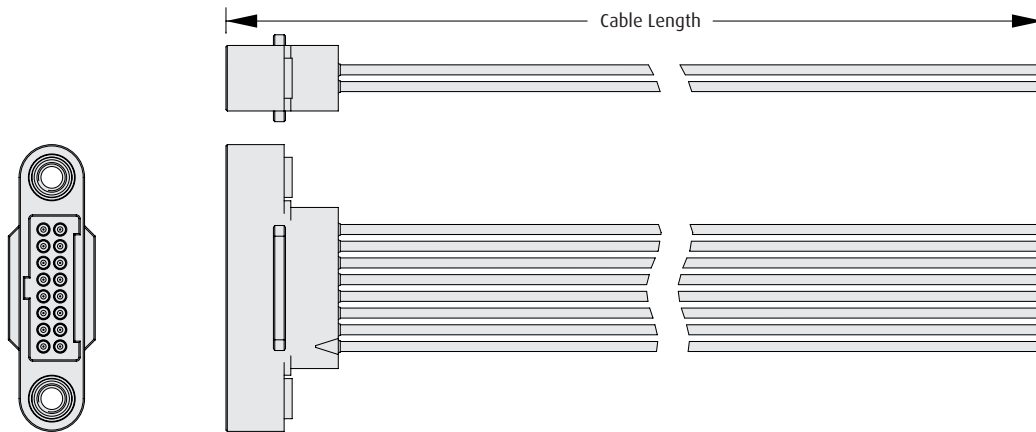
#### CABLE COLOR / BRAID

|           |                                                   |
|-----------|---------------------------------------------------|
| <b>05</b> | White cable                                       |
| <b>68</b> | Multicolor cable (single-ended)                   |
| <b>69</b> | Shielded assembly (with metal backshells & braid) |

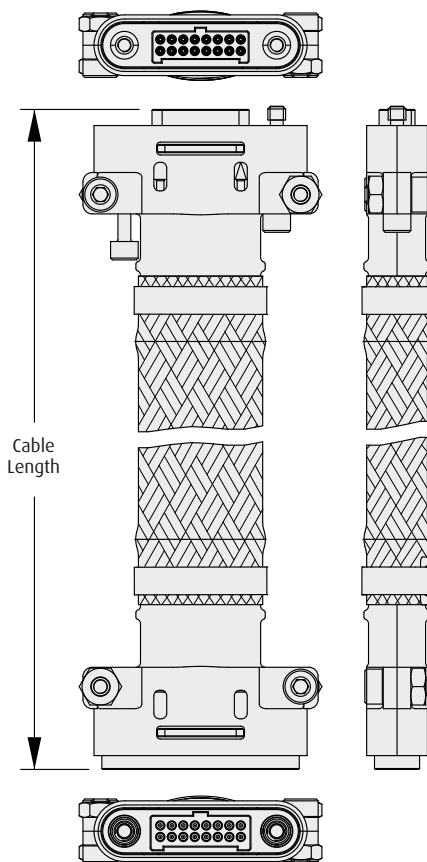
# Gecko-SL Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the connector.

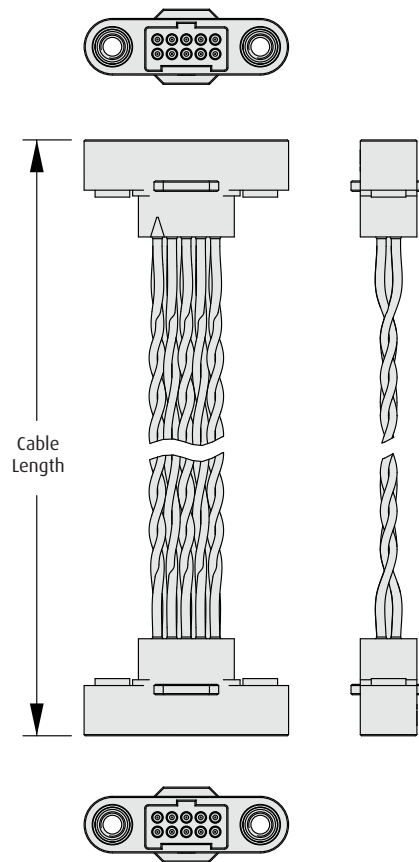
## MALE SINGLE ENDED



## MALE - FEMALE WITH SHIELDING



## MALE - MALE WITH TWISTED PAIRS



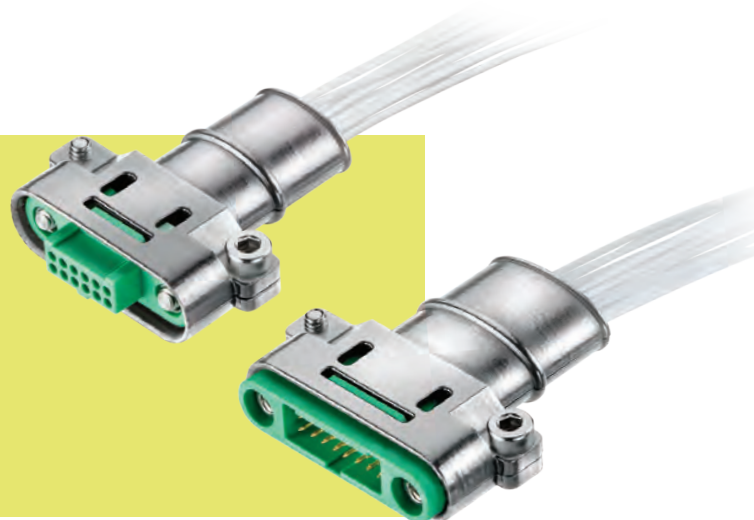
All dimensions in mm.

Patent Published

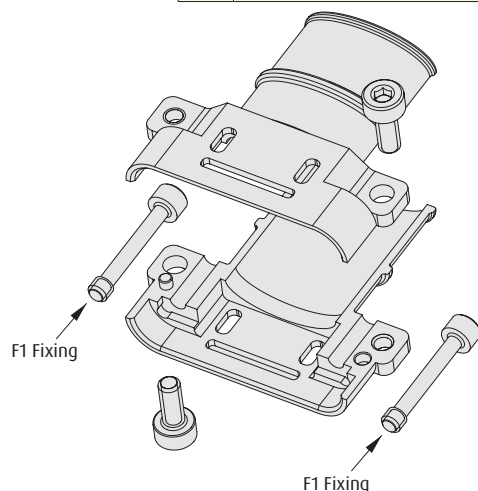
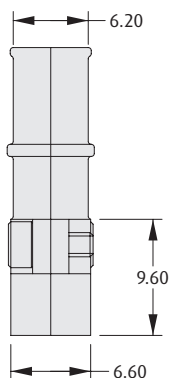
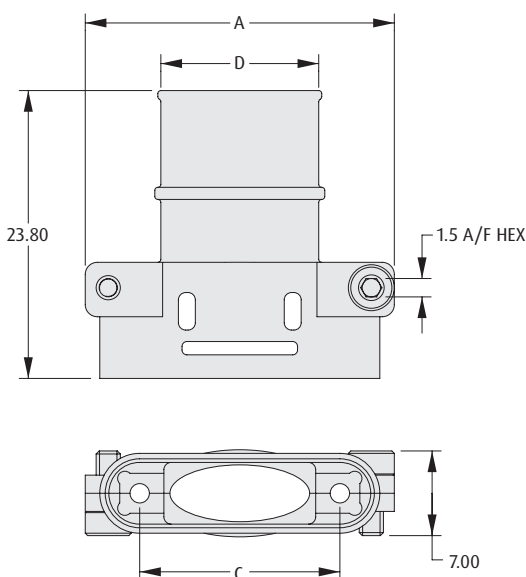
# Gecko-SL Connectors

## Metal Hood / Backshell - Cable

- ❖ Supplied as a kit - includes 2 metal hood halves, and short screws & nuts to join the two hood halves together (nuts not illustrated).
- ❖ Use 00 fixing kit on male housings G125-324xx96M1 for standard gender fixings.
- ❖ F1 kit includes extended fixing screws - use with female housings G125-224xx9600 for standard gender fixings, or G125-324xx9600 for reverse fix.



### HOOD / BACKSHELL



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 16.8$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |
| <b>D</b> | $B + 4.3$                                         |

### HOW TO ORDER

**G125 - 964 XX XX**

#### SERIES CODE

#### SCREW-LOK

|           |                                                                         |
|-----------|-------------------------------------------------------------------------|
| <b>00</b> | Use with G125-324xx96M1 male housings                                   |
| <b>F1</b> | Use with G125-224xx9600 female housings or G125-324xx9600 male housings |

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

### BAND-IT TIE

- ❖ For fixing braid to rear collar (requires Tie Dex II A30199 Micro Band tool).



#### ORDER CODE

|                    |                  |
|--------------------|------------------|
| <b>M80-9470000</b> | Length = 206.8mm |
| <b>M80-9480000</b> | Length = 362.0mm |

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Metal Hood / Backshell - Board Mount or Panel Mount

- ❖ Use with G125-MV1xx05M2x male connectors or G125-FV1xx05F3x female connectors in a PCB mounted application.
- ❖ Use with G125-324xx96M2 male housings or G125-224xx96F3 female housings in a panel mount application.
- ❖ Mating connector to be fitted with metal backshell G125-964xxF1 (shown on previous page) for complete EMC shielded connection.

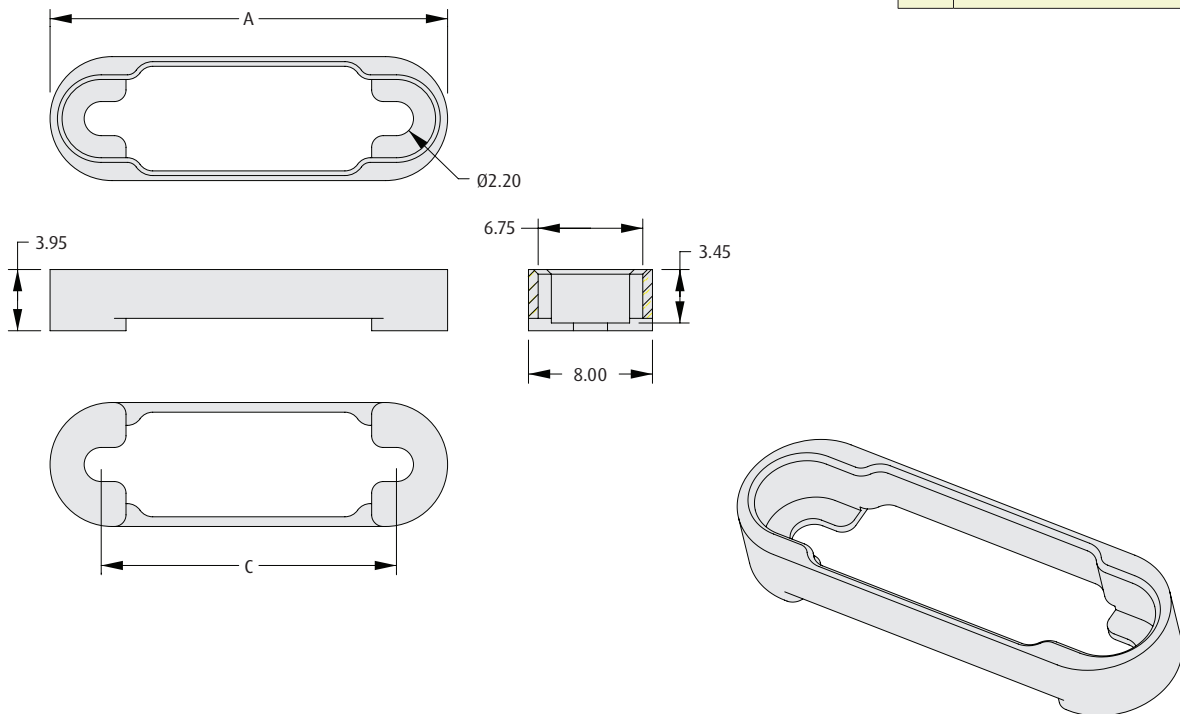


GECKO-SL

### HOOD / BACKSHELL

### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 14.4$                                        |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 7.8$                                         |



### HOW TO ORDER

**G125 - 960 XX 02**

**SERIES CODE**

**TOTAL NO. OF CONTACTS**

06, 10, 12, 16, 20, 26, 34, 50

# Gecko with Latches Specifications

## Materials

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| Housings:        | Glass-filled High Temperature Thermoplastic UL94V-0                 |
| Female contacts: | Beryllium Copper                                                    |
| Male contacts    |                                                                     |
| PCB Connector:   | Phosphor Bronze                                                     |
| Crimp:           | Brass                                                               |
| Finish:          | 0.2 – 0.3µm (8 – 12µ") Gold,<br>over 1.5 – 2.0µm (60 – 80µ") Nickel |
| Latches:         | Copper Alloy                                                        |

## Electrical

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Current</b>                    |                              |
| Individual contacts in isolation: | 2.8A max (At 25°C)           |
| All contacts simultaneously:      | 2.0A max (At 25°C)           |
| Flex Circuit Assembly:            | 0.4A max per track (At 25°C) |
| <b>Working voltage</b>            |                              |
| At sea level 1006 mbar:           | 450V DC or AC peak           |
| At altitude 44 mbar:              | 250V DC or AC peak           |
| <b>Voltage proof</b>              |                              |
| At sea level 1013 mbar:           | 600V DC or AC peak           |
| <b>Contact resistance</b>         |                              |
| Initial:                          | 20mΩ max                     |
| After conditioning:               | 25mΩ max                     |
| <b>Insulation resistance</b>      |                              |
| Initial:                          | 10GΩ min at 500V DC          |
| After conditioning:               | >1GΩ min at 500V DC          |

## Mechanical

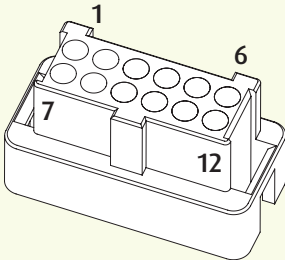
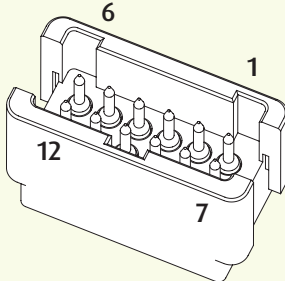
|                                         |                 |
|-----------------------------------------|-----------------|
| Contact durability:                     | 1000 operations |
| <b>Mating forces (per contact pair)</b> |                 |
| Insertion force:                        | 2.8N max        |
| Withdrawal force:                       | 0.2N min        |
| Contact retention in housing:           | 6N min          |

## Environmental

|                               |                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------|
| Environmental classification: | 65/150/56 days at 93% RH                                                                         |
| Operating temperature:        | -65°C to +150°C                                                                                  |
| *Vibration sensitivity:       | 10Hz to 2000Hz, 1.5mm,<br>198mm/s <sup>2</sup> (20G) duration 6 hours                            |
| *Bump severity:               | 390m/s <sup>2</sup> (40G), 4000 ±10 bumps                                                        |
| *Shock severity:              | 981m/s <sup>2</sup> (100G) for 6ms in Z axis<br>490m/s <sup>2</sup> (50G) for 11ms in X & Y axes |
| *Acceleration severity:       | 490m/s <sup>2</sup> (50G)                                                                        |

\* Tested with latched connectors.

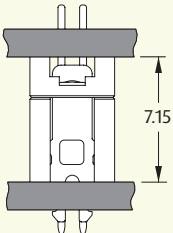
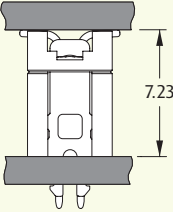
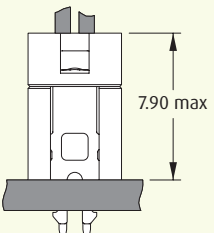
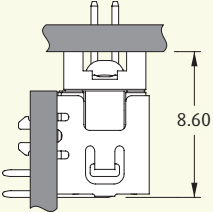
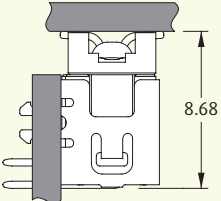
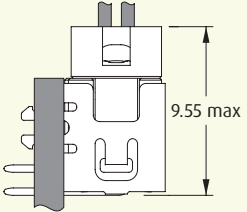
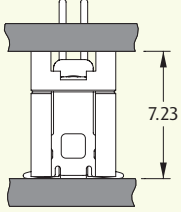
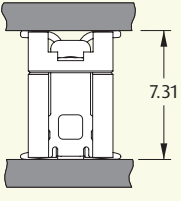
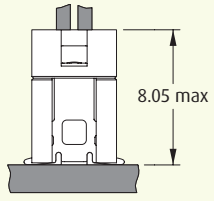
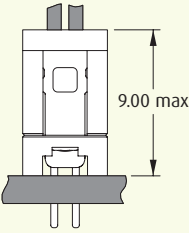
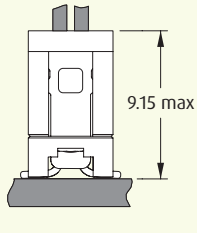
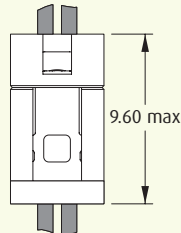
# Pin Numbering

| FEMALE                                                                              | MALE                                                                                  |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |

All dimensions in mm.

Patent Published

# Gecko with Latches Mating Profiles

|      |                          | FEMALE                                                                              |                                                                                      |                                                                                       |
|------|--------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|      |                          | VERTICAL THROUGHBOARD                                                               | VERTICAL SMT                                                                         | CABLE                                                                                 |
| MALE | VERTICAL THROUGH-BOARD   |    |    |    |
|      | HORIZONTAL THROUGH-BOARD |    |    |    |
|      | VERTICAL SMT             |   |   |   |
|      | CABLE                    |  |  |  |

GECKO WITH LATCHES

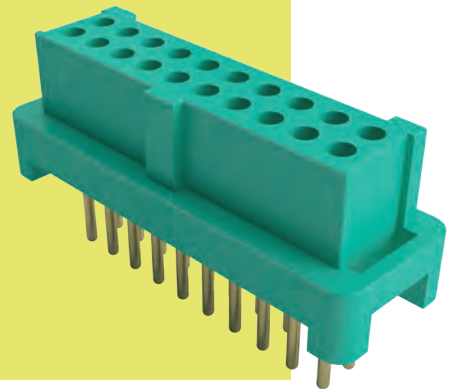
All dimensions in mm.

Patent Published

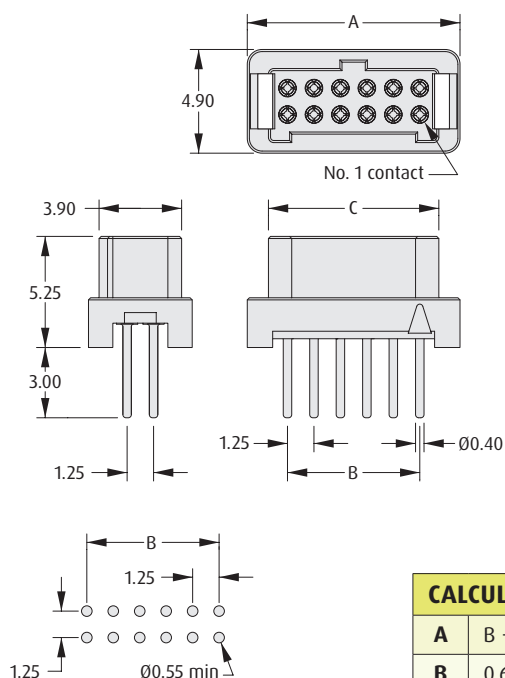
# Gecko with Latches Connectors

## Female Throughboard

- ❖ 4-finger Beryllium Copper contact.
- ❖ Positive keyway polarization features.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



### 3mm THROUGHBOARD

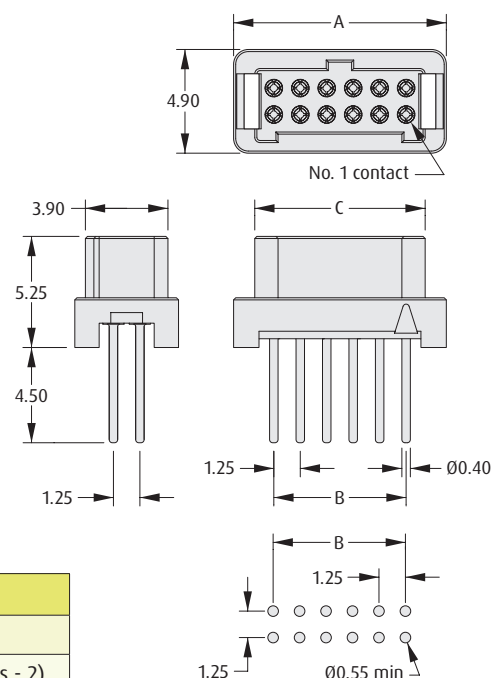


Recommended PC Board Pattern

#### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 3.8$                                         |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 1.8$                                         |

### 4.5mm THROUGHBOARD



Recommended PC Board Pattern

## HOW TO ORDER

**G125 - F VX XX 05 L0 X**

#### SERIES CODE

#### TYPE

|           |                    |
|-----------|--------------------|
| <b>V1</b> | 3mm Throughboard   |
| <b>V2</b> | 4.5mm Throughboard |

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

#### FINISH

|           |      |
|-----------|------|
| <b>05</b> | Gold |
|-----------|------|

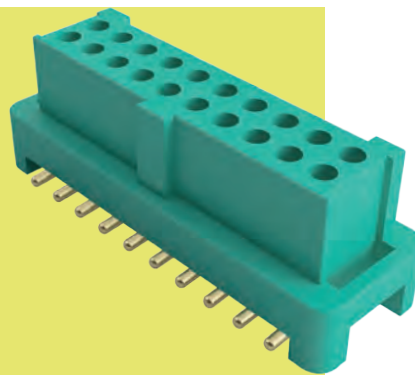
#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

# Gecko with Latches Connectors

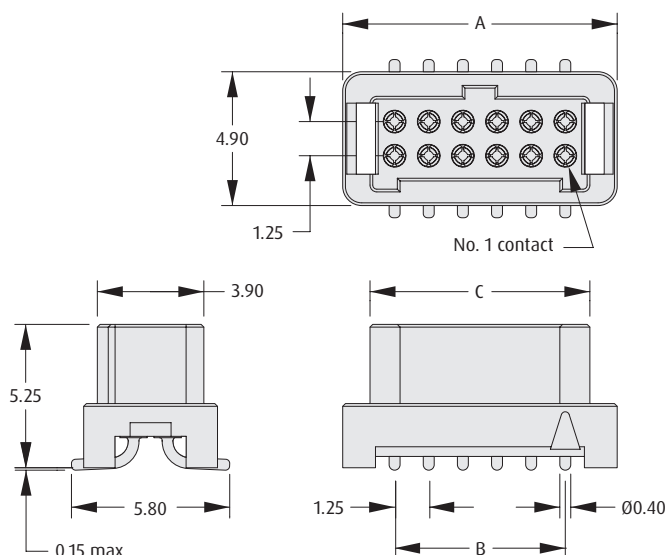
## Female Surface Mount

- ❖ 4-finger Beryllium Copper contact.
- ❖ Positive keyway polarization features.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Available in Tape and Reel Packaging, with Pick and Place cap.



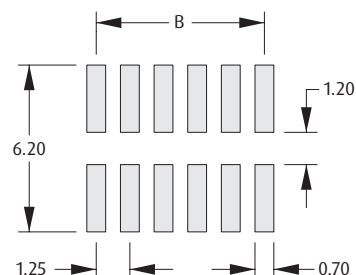
GECKO WITH LATCHES

### SURFACE MOUNT



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 3.8$                                         |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 1.8$                                         |



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F S1 XX 05 L0 X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

#### FINISH

**05** Gold

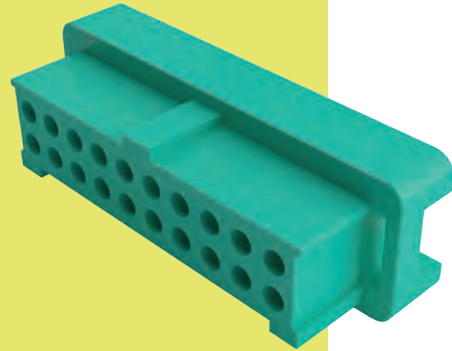
#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

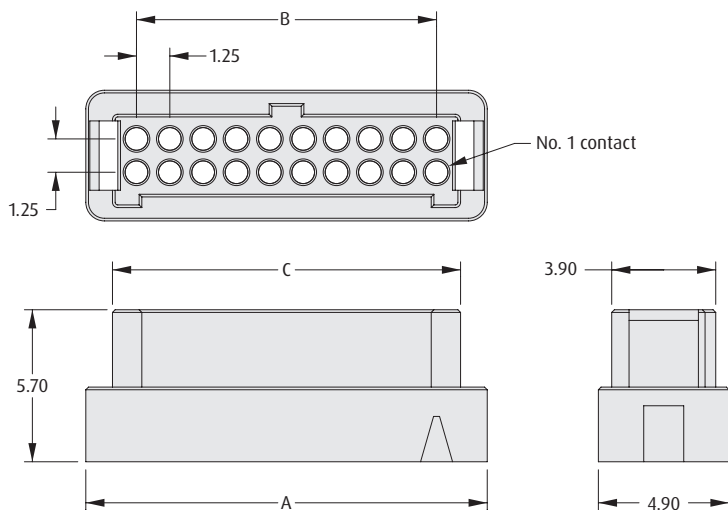
# Gecko with Latches Connectors

## Female Crimp Housings

- ❖ Features potting wall for extra security.
- ❖ No. 1 position identified on housing.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ 3 polarizing points on each housing prevent mis-mating.



### FEMALE



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 3.8$                                         |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 1.8$                                         |

### TOOLS

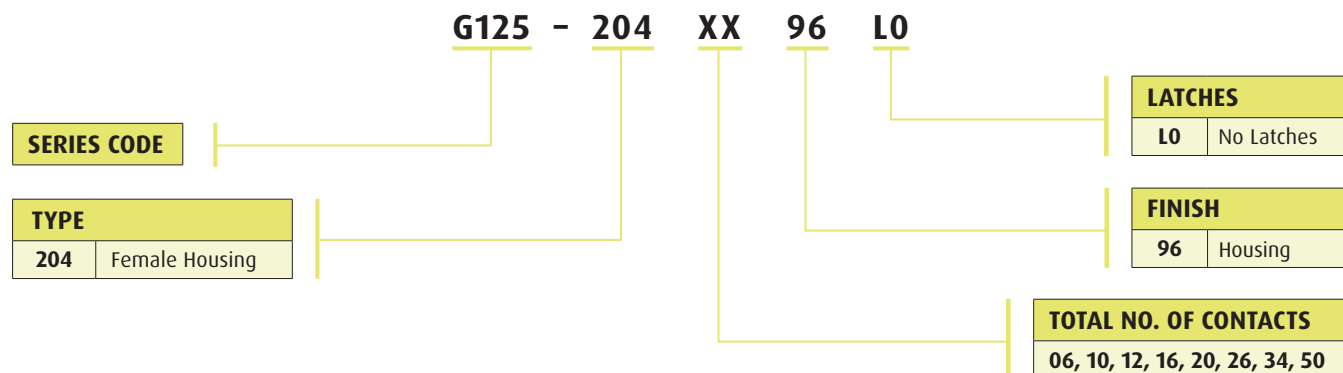
**Recommended Crimp Tool** - Z125-900

**Positioner** - Z125-901

**Contact Insertion/Removal Tool** - Z125-902

- ❖ Female contacts shown on following pages.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER



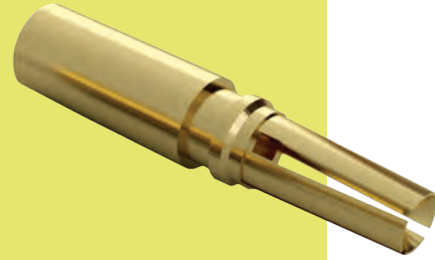
All dimensions in mm.

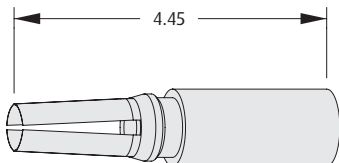
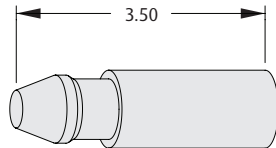
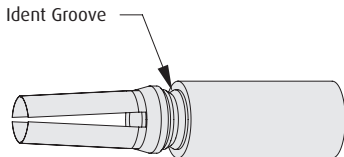
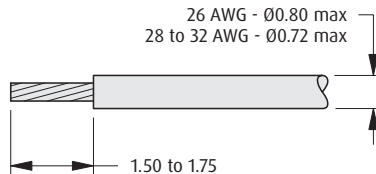
Patent Published

# Gecko with Latches Connectors

## Female Crimp Contacts, Dummy Contact

- ❖ 4-finger Beryllium Copper contact on a female connector.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



| CONTACTS                                                                                                                                                                                                                                                                                                                                                                                      |                                | DUMMY CONTACT                                                                                                                                                                                                                                  |  |      |  |     |                             |     |                                |     |                               |    |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|--|-----|-----------------------------|-----|--------------------------------|-----|-------------------------------|----|------|
| <div>26 AWG</div> <div></div>                                                                                                                                                                                                                                                                                |                                | <div></div>                                                                                                                                                 |  |      |  |     |                             |     |                                |     |                               |    |      |
| <div>28 - 32 AWG</div> <div></div>                                                                                                                                                                                                                                                                         |                                | <div>WIRE STRIPPING DETAILS</div> <div></div>                                                                                                              |  |      |  |     |                             |     |                                |     |                               |    |      |
| TOOLS                                                                                                                                                                                                                                                                                                                                                                                         |                                |                                                                                                                                                                                                                                                |  |      |  |     |                             |     |                                |     |                               |    |      |
| <div>Recommended Crimp Tool - Z125-900</div> <div>Positioner - Z125-901</div> <div>Contact Insertion/Removal Tool - Z125-902</div>                                                                                                                                                                                                                                                            |                                | <div>❖ Female crimp housing shown on previous page.</div> <div>❖ Pre-cabled contacts shown on following page.</div> <div>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</div> |  |      |  |     |                             |     |                                |     |                               |    |      |
| HOW TO ORDER                                                                                                                                                                                                                                                                                                                                                                                  |                                |                                                                                                                                                                                                                                                |  |      |  |     |                             |     |                                |     |                               |    |      |
| <div>G125 - 0XX 00 05</div> <div><div>SERIES CODE</div><div><table><tr><th>TYPE</th><td></td></tr><tr><td>001</td><td>Female 26 AWG crimp contact</td></tr><tr><td>002</td><td>Female 28-32 AWG crimp contact</td></tr><tr><td>020</td><td>Dummy Contact (blanking plug)</td></tr></table></div><div><div>FINISH</div><div><table><tr><td>05</td><td>Gold</td></tr></table></div></div></div> |                                |                                                                                                                                                                                                                                                |  | TYPE |  | 001 | Female 26 AWG crimp contact | 002 | Female 28-32 AWG crimp contact | 020 | Dummy Contact (blanking plug) | 05 | Gold |
| TYPE                                                                                                                                                                                                                                                                                                                                                                                          |                                |                                                                                                                                                                                                                                                |  |      |  |     |                             |     |                                |     |                               |    |      |
| 001                                                                                                                                                                                                                                                                                                                                                                                           | Female 26 AWG crimp contact    |                                                                                                                                                                                                                                                |  |      |  |     |                             |     |                                |     |                               |    |      |
| 002                                                                                                                                                                                                                                                                                                                                                                                           | Female 28-32 AWG crimp contact |                                                                                                                                                                                                                                                |  |      |  |     |                             |     |                                |     |                               |    |      |
| 020                                                                                                                                                                                                                                                                                                                                                                                           | Dummy Contact (blanking plug)  |                                                                                                                                                                                                                                                |  |      |  |     |                             |     |                                |     |                               |    |      |
| 05                                                                                                                                                                                                                                                                                                                                                                                            | Gold                           |                                                                                                                                                                                                                                                |  |      |  |     |                             |     |                                |     |                               |    |      |

All dimensions in mm.

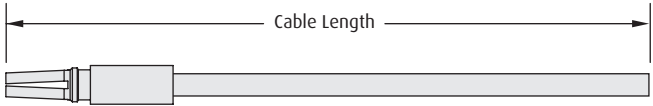
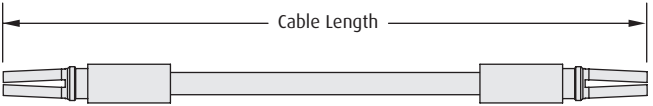
Patent Published

# Gecko with Latches Connectors

## Female Crimp Contacts – Pre-Crimped Wires

- ❖ 4-finger Beryllium Copper contact.
- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



| FEMALE SINGLE ENDED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      | FEMALE – FEMALE                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|--------|-----------|--------|-----------|--------|-----------|-------|----------|---------------|----------|--------|-------------|-------|-------------|----------------------|-------------|----------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                                                                                                                                                                   |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| TOOLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>Contact Insertion/Removal Tool</b> – Z125-902                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      | <ul style="list-style-type: none"><li>❖ Female crimp housing and loose contacts shown on previous pages.</li><li>❖ Full Cable assemblies shown on following page.</li><li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li></ul> |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| HOW TO ORDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <div><div><div><b>SERIES CODE</b></div><div><b>G125</b></div></div><div><div><b>GENDER - FIRST END</b></div><div><b>F</b> Female</div></div><div><div><b>CABLE SIZE</b></div><div><table><tr><td><b>W1</b></td><td>26 AWG</td></tr><tr><td><b>W2</b></td><td>28 AWG</td></tr><tr><td><b>W3</b></td><td>30 AWG</td></tr></table></div></div><div><div><b>CABLE COLOR</b></div><div><table><tr><td><b>94</b></td><td>White</td></tr></table></div></div><div><div><b>TERMINATION - SECOND END</b></div><div><table><tr><td><b>L</b></td><td>Loose cut end</td></tr><tr><td><b>F</b></td><td>Female</td></tr></table></div></div><div><div><b>CABLE LENGTH</b></div><div><table><tr><td><b>0150</b></td><td>150mm</td></tr><tr><td><b>0300</b></td><td>300mm (double-ended)</td></tr><tr><td><b>0450</b></td><td>450mm (single-ended)</td></tr></table></div></div></div> <div><b>G125 – F WX XXXX X 94</b></div> |                      |                                                                                                                                                                                                                                                                                                     |  | <b>W1</b> | 26 AWG | <b>W2</b> | 28 AWG | <b>W3</b> | 30 AWG | <b>94</b> | White | <b>L</b> | Loose cut end | <b>F</b> | Female | <b>0150</b> | 150mm | <b>0300</b> | 300mm (double-ended) | <b>0450</b> | 450mm (single-ended) |
| <b>W1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 26 AWG               |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>W2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 28 AWG               |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>W3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30 AWG               |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>94</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | White                |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>L</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Loose cut end        |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>F</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Female               |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>0150</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 150mm                |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>0300</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 300mm (double-ended) |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |
| <b>0450</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 450mm (single-ended) |                                                                                                                                                                                                                                                                                                     |  |           |        |           |        |           |        |           |       |          |               |          |        |             |       |             |                      |             |                      |

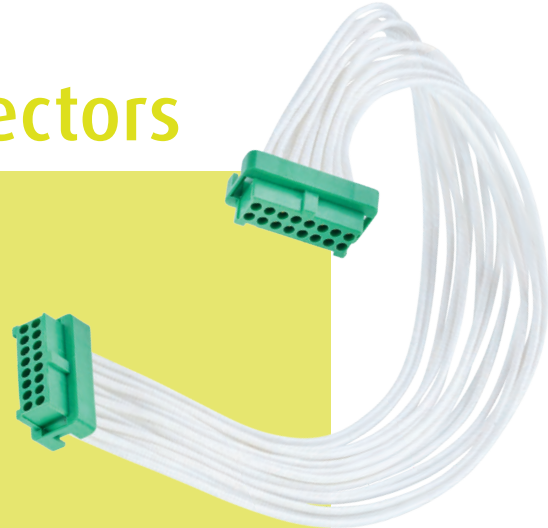
All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

## Female Cable Assemblies

- ❖ 4-finger Beryllium Copper contact.
- ❖ No. 1 position identified on housing.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Back potted for added strain relief.
- ❖ Check website or Ask an Expert for available combinations.



### PART NUMBERING SYSTEM

**G125 - F X X XX XX L0 - XXXX X**

#### SERIES CODE

#### GENDER - FIRST END

**F** Female

#### CABLE STYLE

**C** Standard Cables  
**D** Twisted Pairs

#### CABLE SIZE

**1** 26 AWG  
**2** 28 AWG  
**3** 30 AWG

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### TERMINATION - SECOND END

**L** Loose cut end  
**F** Female connector

#### CABLE LENGTH

**0150** 150mm  
**0300** 300mm (double-ended)  
**0450** 450mm (single-ended)  
**XXXX** XXXXmm

#### LATCHES

**L0** No Latches

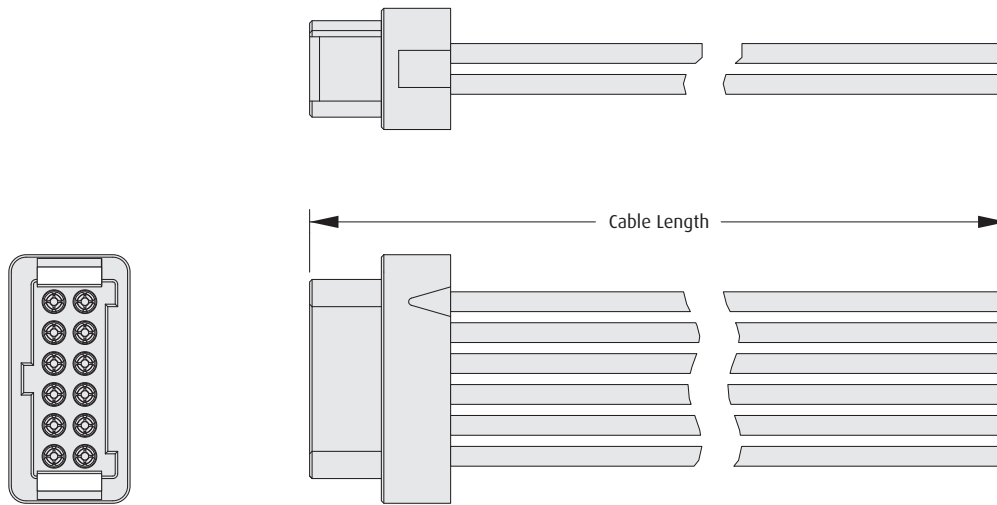
#### CABLE COLOR

**05** White cable  
**68** Multicolor cable (single-ended)

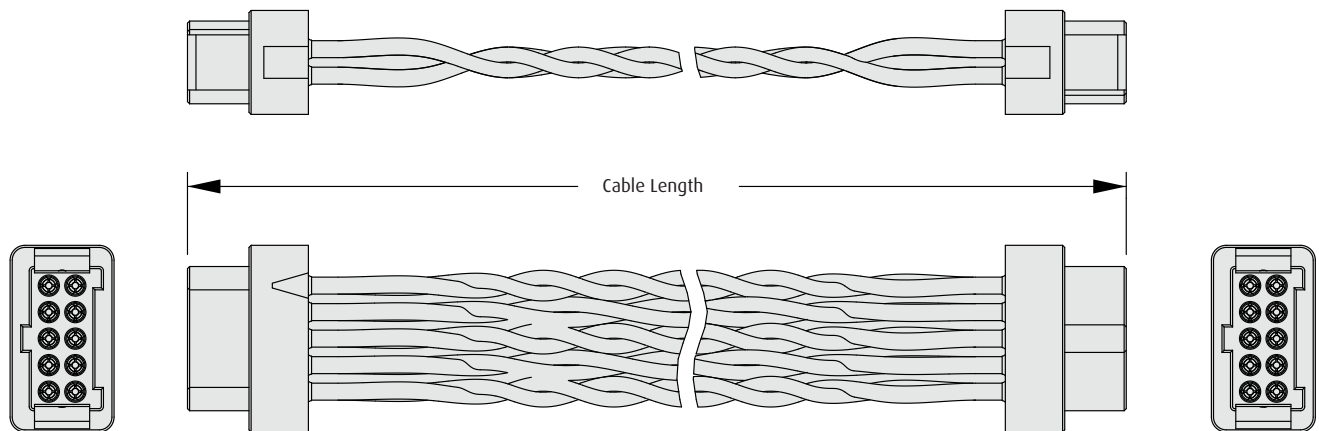
# Gecko with Latches Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the connector.

## FEMALE SINGLE ENDED



## FEMALE - FEMALE WITH TWISTED PAIRS



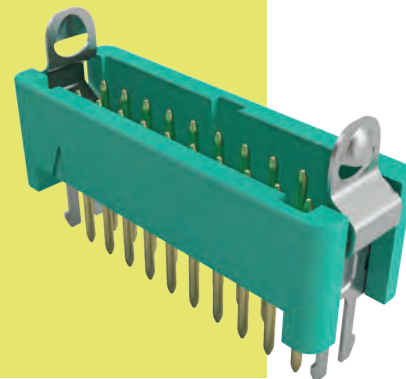
All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

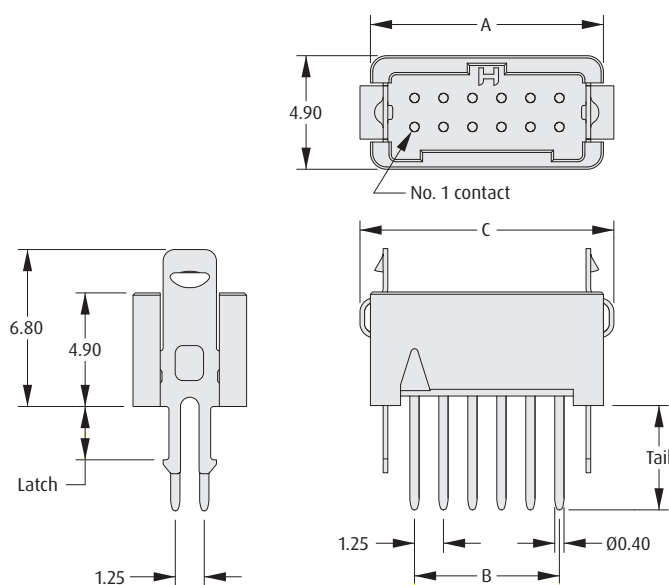
## Male Vertical Throughboard

- Secure fixing to the PCB via retention barbs for through hole.
- Easy-to-release latches require no tooling.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



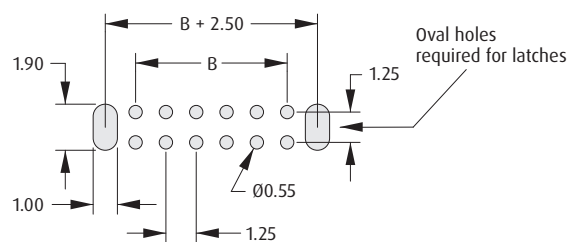
GECKO WITH LATCHES

### THROUGHBOARD



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 3.8$                                         |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 5.2$                                         |



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M VX XX 05 LX X**

#### SERIES CODE

#### TYPE

|           |                         |
|-----------|-------------------------|
| <b>V1</b> | 3mm Throughboard Tail   |
| <b>V2</b> | 4.5mm Throughboard Tail |

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

#### LATCH

|           |                                   |
|-----------|-----------------------------------|
| <b>L0</b> | No Latch                          |
| <b>L1</b> | Latch for 1.6mm PCB (use with V1) |
| <b>L2</b> | Latch for 2.4mm PCB (use with V2) |

#### FINISH

**05** Gold

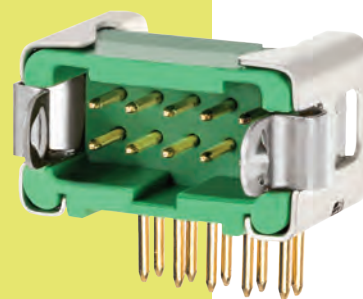
All dimensions in mm.

Patent Published

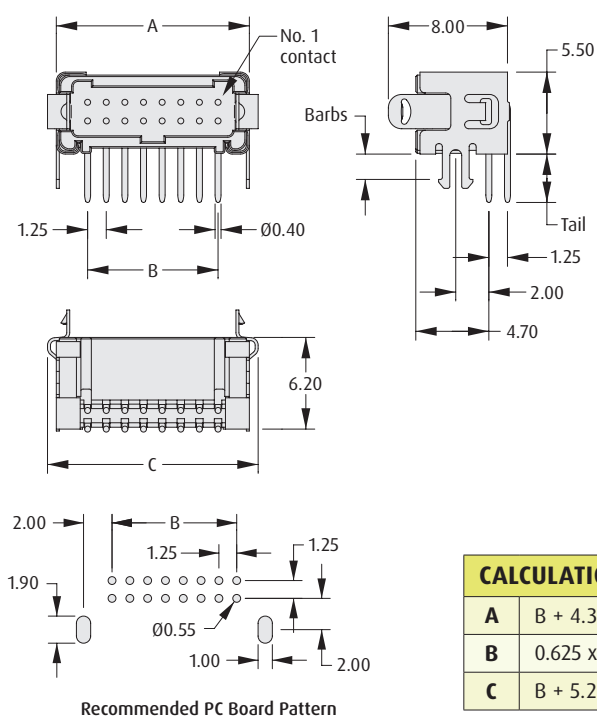
# Gecko with Latches Connectors

## Male Horizontal Throughboard - Latched

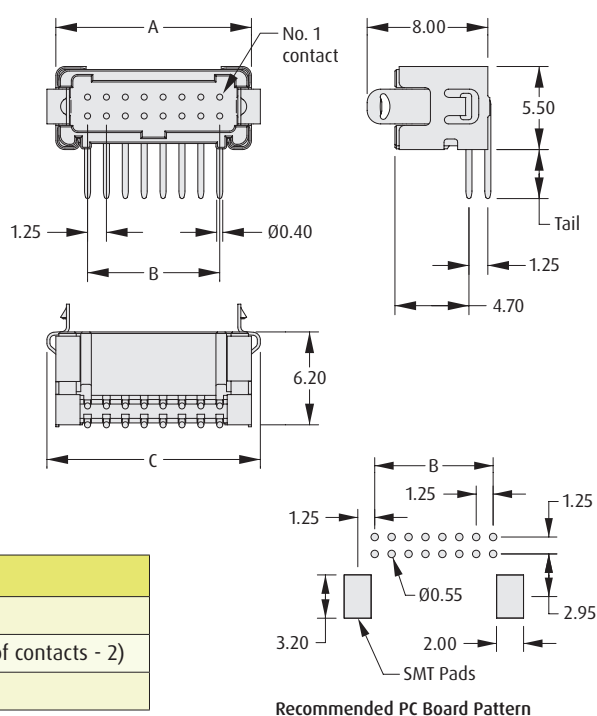
- ❖ Secure fixing to the PCB via retention barbs for through hole.
- ❖ Surface mount option for automated assembly.
- ❖ Easy-to-release latches – tooling available for additional assistance with releasing latches – see part numbers **Z125-926xx00**.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



### THROUGHBOARD LATCH



### SURFACE MOUNT LATCH



#### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 4.3$                                         |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 5.2$                                         |

### HOW TO ORDER

**G125 - M HX XX 05 LX X**

#### SERIES CODE

#### TYPE

|           |                         |
|-----------|-------------------------|
| <b>H1</b> | 3.2mm Throughboard Tail |
| <b>H2</b> | 4.7mm Throughboard Tail |

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

#### LATCH

|           |                                   |
|-----------|-----------------------------------|
| <b>L1</b> | Latch for 1.6mm PCB (use with H1) |
| <b>L2</b> | Latch for 2.4mm PCB (use with H2) |
| <b>L3</b> | Surface Mount Latch               |

#### FINISH

|           |      |
|-----------|------|
| <b>05</b> | Gold |
|-----------|------|

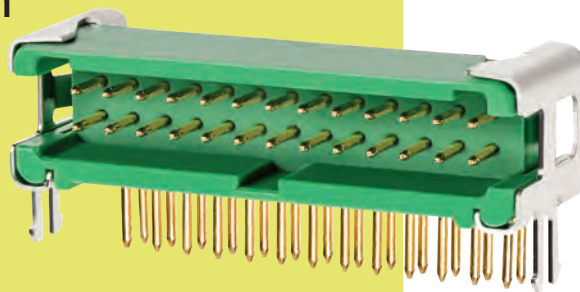
All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

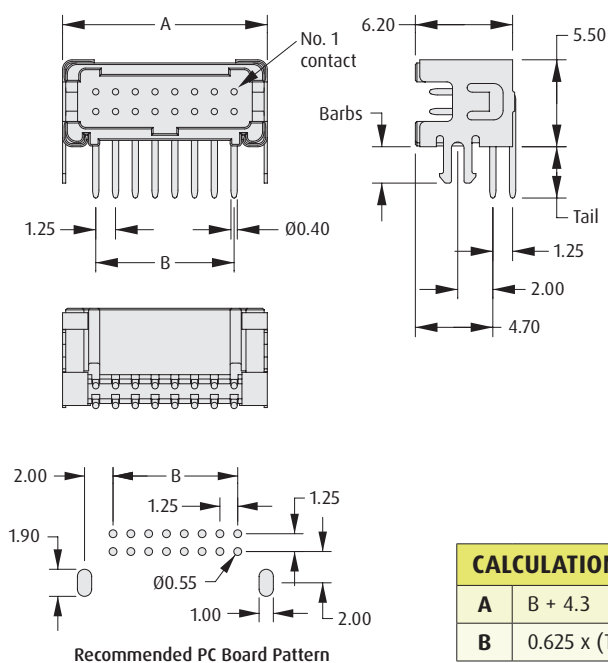
## Male Horizontal Throughboard - Without Latch

- ❖ Secure fixing to the PCB via retention barbs for through hole.
- ❖ Surface mount option for automated assembly.
- ❖ 2A current capacity.
- ❖ Withstands extremes of temperature: -65°C to +150°C.

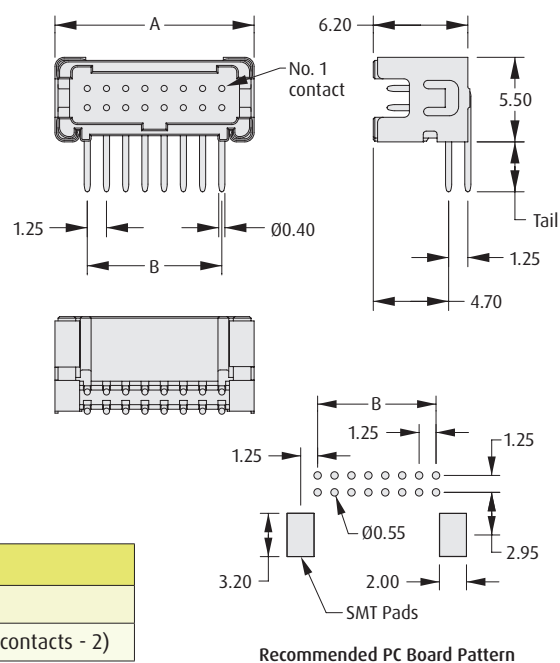


GECKO WITH LATCHES

### THROUGHBOARD FIXING



### SURFACE MOUNT FIXING



#### CALCULATION

|   |                                                   |
|---|---------------------------------------------------|
| A | $B + 4.3$                                         |
| B | $0.625 \times (\text{Total No. of contacts} - 2)$ |

### HOW TO ORDER

**G125 - M HX XX 05 LX X**

#### SERIES CODE

#### TYPE

|    |                         |
|----|-------------------------|
| H1 | 3.2mm Throughboard Tail |
| H2 | 4.7mm Throughboard Tail |

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

#### PACKAGING

|   |                    |
|---|--------------------|
| R | Tape & Reeled      |
| P | Tape & Reel strips |

#### FIXING

|    |                                   |
|----|-----------------------------------|
| L5 | Barbs for 1.6mm PCB (use with H1) |
| L6 | Barbs for 2.4mm PCB (use with H2) |
| L7 | Surface Mount Fixing              |

#### FINISH

|    |      |
|----|------|
| 05 | Gold |
|----|------|

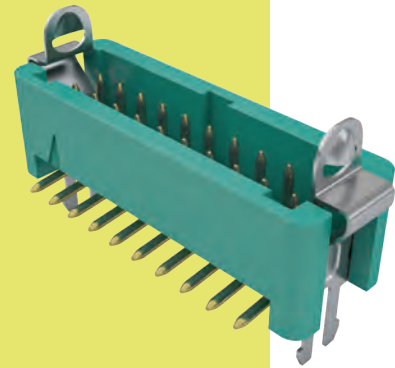
All dimensions in mm.

Patent Published

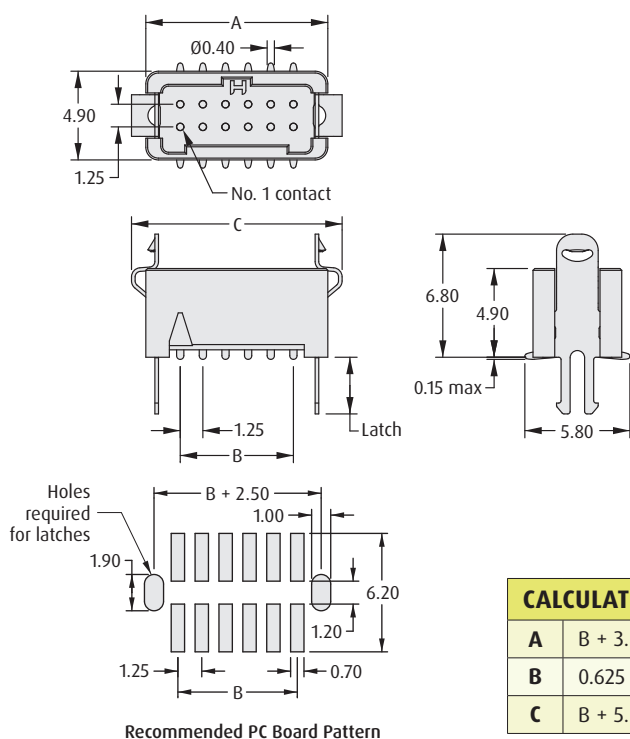
# Gecko with Latches Connectors

## Male Vertical Surface Mount

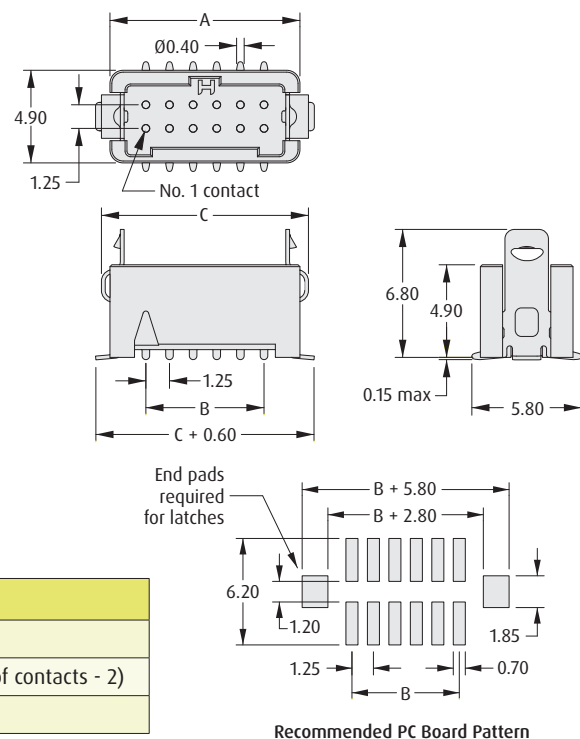
- ❖ Secure fixing to the PCB via hold-down tabs (SMT).
- ❖ Easy-to-release latches require no tooling.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



### THROUGHBOARD LATCH



### SURFACE MOUNT LATCH



#### CALCULATION

|   |                                     |
|---|-------------------------------------|
| A | B + 3.8                             |
| B | 0.625 x (Total No. of contacts - 2) |
| C | B + 5.2                             |

### HOW TO ORDER

**G125 - M S1 XX 05 LX X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### FINISH

**05** Gold

#### PACKAGING

|          |                    |
|----------|--------------------|
| <b>R</b> | Tape & Reeled      |
| <b>P</b> | Tape & Reel strips |

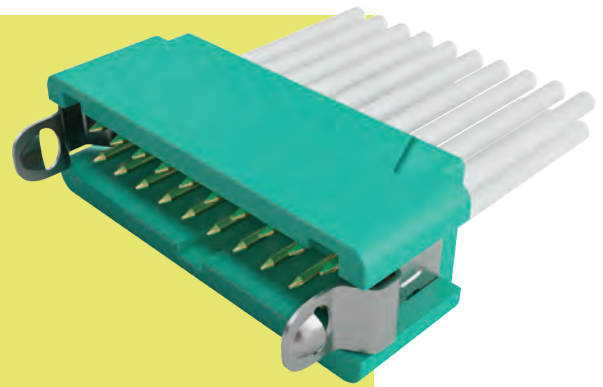
#### LATCH

|           |                     |
|-----------|---------------------|
| <b>L0</b> | No Latch            |
| <b>L1</b> | Latch for 1.6mm PCB |
| <b>L2</b> | Latch for 2.4mm PCB |
| <b>L3</b> | Surface Mount Latch |

# Gecko with Latches Connectors

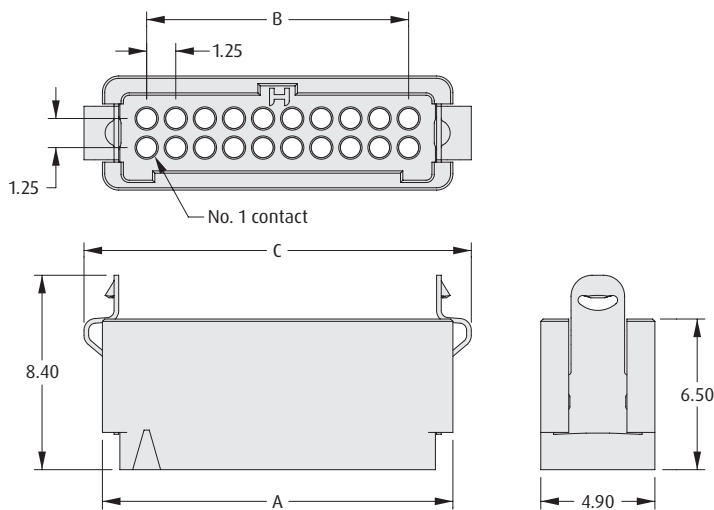
## Male Crimp Housing

- ❖ Features potting wall for extra security.
- ❖ No. 1 position identified on housing.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ 3 polarizing points on each housing prevent mis-mating.
- ❖ Easy to release latches require no tooling.



GECKO WITH LATCHES

### MALE



### CALCULATION

|          |                                                   |
|----------|---------------------------------------------------|
| <b>A</b> | $B + 3.8$                                         |
| <b>B</b> | $0.625 \times (\text{Total No. of contacts} - 2)$ |
| <b>C</b> | $B + 5.2$                                         |

### TOOLS

**Recommended Crimp Tool** - Z125-900

**Positioner** - Z125-901

**Contact Insertion/Removal Tool** - Z125-902

❖ Male contacts shown on following pages.

❖ Instruction sheets available at  
[www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 304 XX 96 LX**

#### SERIES CODE

#### TYPE

**304** Male Housing

#### LATCH

|           |                     |
|-----------|---------------------|
| <b>L0</b> | No Latches          |
| <b>L4</b> | Latches (Male Only) |

#### FINISH

**96** Housing

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

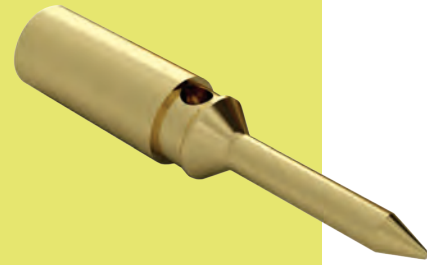
All dimensions in mm.

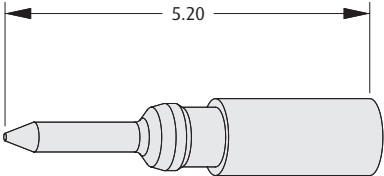
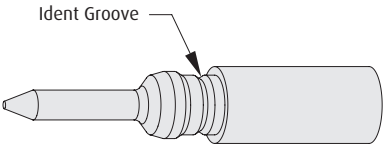
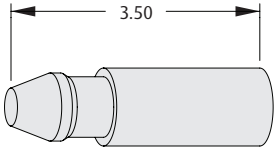
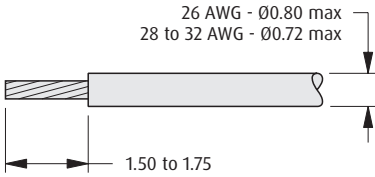
Patent Published

# Gecko with Latches Connectors

## Male Crimp Contacts

- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



| CONTACTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | DUMMY CONTACT                                                                                                                                                                                                                                                                  |      |  |            |                           |            |                              |            |                               |           |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--|------------|---------------------------|------------|------------------------------|------------|-------------------------------|-----------|------|
| <p><b>26 AWG</b></p>  <p><b>28 – 32 AWG</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  <p><b>WIRE STRIPPING DETAILS</b></p>                                                                   |      |  |            |                           |            |                              |            |                               |           |      |
| TOOLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                |      |  |            |                           |            |                              |            |                               |           |      |
| <p><b>Recommended Crimp Tool</b> – Z125-900</p> <p><b>Positioner</b> – Z125-901</p> <p><b>Contact Insertion/Removal Tool</b> – Z125-902</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>❖ Male crimp housing shown on previous page.</li> <li>❖ Pre-cable contacts shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul> |      |  |            |                           |            |                              |            |                               |           |      |
| HOW TO ORDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                |      |  |            |                           |            |                              |            |                               |           |      |
| <p style="text-align: center;"><b>G125 - XXX 00 05</b></p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <p><b>SERIES CODE</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">TYPE</th><th></th></tr> </thead> <tbody> <tr> <td><b>101</b></td><td>Male 26 AWG crimp contact</td></tr> <tr> <td><b>102</b></td><td>Male 28-32 AWG crimp contact</td></tr> <tr> <td><b>020</b></td><td>Dummy Contact (blanking plug)</td></tr> </tbody> </table> </div> <div style="width: 45%; text-align: right;"> <p><b>FINISH</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 10%;"><b>05</b></td><td>Gold</td></tr> </tbody> </table> </div> </div> |                                                                                                                                                                                                                                                                                | TYPE |  | <b>101</b> | Male 26 AWG crimp contact | <b>102</b> | Male 28-32 AWG crimp contact | <b>020</b> | Dummy Contact (blanking plug) | <b>05</b> | Gold |
| TYPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                |      |  |            |                           |            |                              |            |                               |           |      |
| <b>101</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Male 26 AWG crimp contact                                                                                                                                                                                                                                                      |      |  |            |                           |            |                              |            |                               |           |      |
| <b>102</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Male 28-32 AWG crimp contact                                                                                                                                                                                                                                                   |      |  |            |                           |            |                              |            |                               |           |      |
| <b>020</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Dummy Contact (blanking plug)                                                                                                                                                                                                                                                  |      |  |            |                           |            |                              |            |                               |           |      |
| <b>05</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Gold                                                                                                                                                                                                                                                                           |      |  |            |                           |            |                              |            |                               |           |      |

All dimensions in mm.

Patent Published

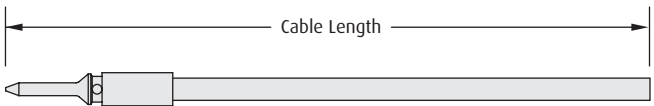
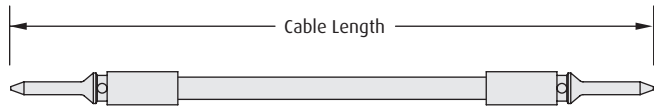
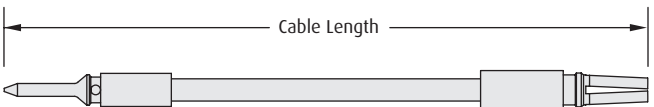
# Gecko with Latches Connectors

## Male Crimp Contacts – Pre-Crimped Wires

- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



GECKO WITH LATCHES

| MALE SINGLE ENDED                                                                   | MALE – MALE                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                                                                                                                                                                             |
| MALE – FEMALE                                                                       | TOOLS                                                                                                                                                                                                                                                                                                                                                         |
|  | <p><b>Contact Insertion/Removal Tool</b> – Z125-902</p> <ul style="list-style-type: none"> <li>❖ Male crimp housing and loose contacts shown on previous pages.</li> <li>❖ Full Cable assemblies shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul> |

### HOW TO ORDER

**G125 – M WX XXXX X 94**

#### SERIES CODE

#### GENDER – FIRST END

**M** Male

#### CABLE SIZE

|           |        |
|-----------|--------|
| <b>W1</b> | 26 AWG |
| <b>W2</b> | 28 AWG |
| <b>W3</b> | 30 AWG |

#### CABLE COLOR

**94** White

#### TERMINATION – SECOND END

|          |               |
|----------|---------------|
| <b>L</b> | Loose cut end |
| <b>F</b> | Female        |
| <b>M</b> | Male          |

#### CABLE LENGTH

|             |                      |
|-------------|----------------------|
| <b>0150</b> | 150mm                |
| <b>0300</b> | 300mm (double-ended) |
| <b>0450</b> | 450mm (single-ended) |

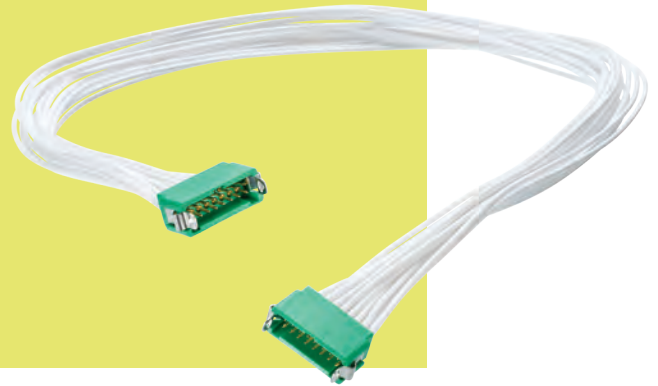
All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

## Male Cable Assemblies

- ❖ No. 1 position identified on housing.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Back potted for added strain relief.
- ❖ 4-finger Beryllium Copper contact on the female connector.
- ❖ Check website or Ask an Expert for available combinations.



### PART NUMBERING SYSTEM

**G125 - M X X XX XX LX - XXXX X**

#### SERIES CODE

#### GENDER - FIRST END

**M** Male

#### CABLE STYLE

**C** Standard Cables

**D** Twisted Pairs

#### CABLE SIZE

**1** 26 AWG

**2** 28 AWG

**3** 30 AWG

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

#### TERMINATION - SECOND END

**L** Loose cut end

**F** Female connector

**M** Male connector

#### CABLE LENGTH

**0150** 150mm

**0300** 300mm (double-ended)

**0450** 450mm (single-ended)

**XXXX** XXXXmm

#### LATCHES

**L0** No Latches

**L4** Latches (male connectors only)

#### CABLE COLOR

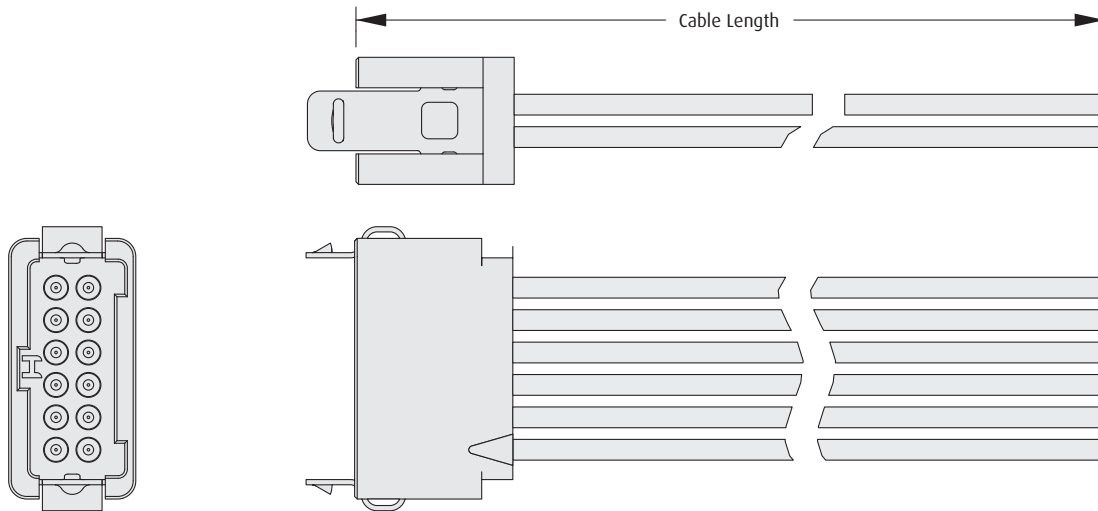
**05** White cable

**68** Multicolor cable (single-ended)

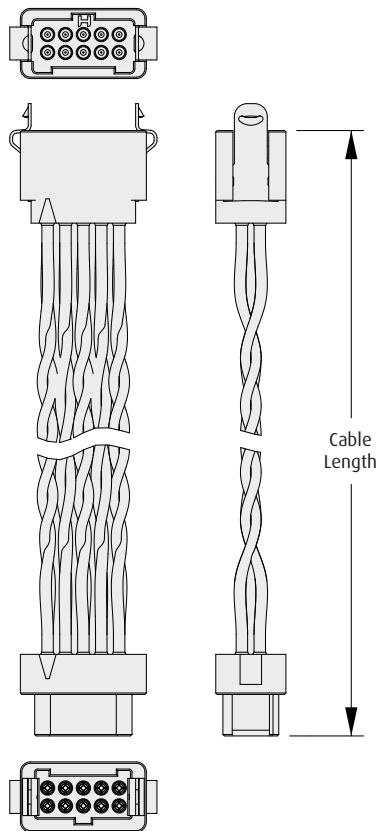
# Gecko with Latches Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the cable.

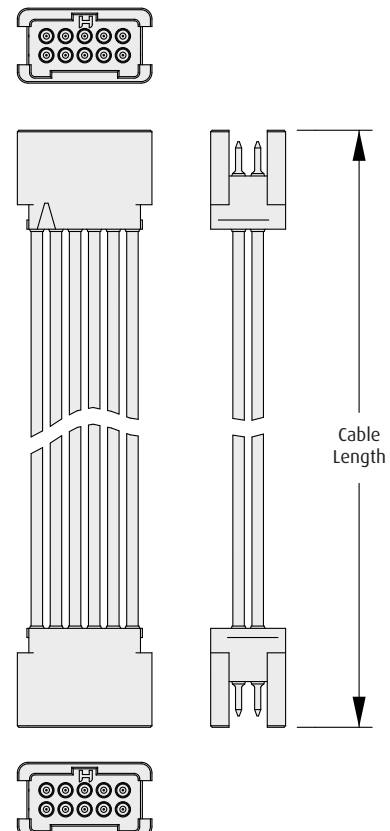
## MALE SINGLE ENDED



## MALE - FEMALE WITH TWISTED PAIRS



## MALE - MALE



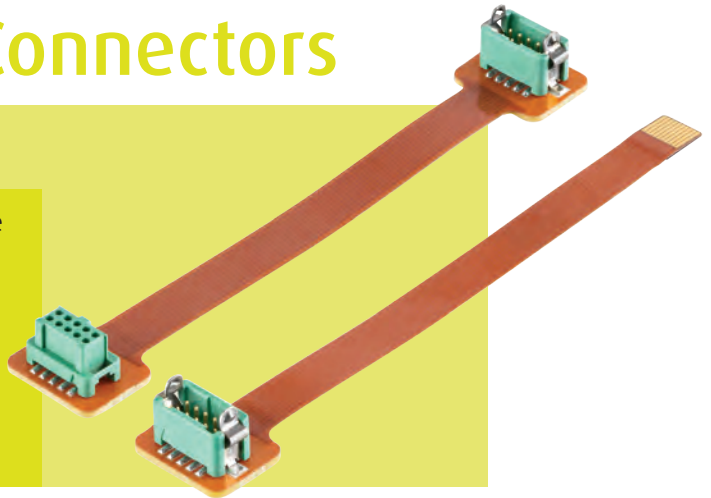
All dimensions in mm.

Patent Published

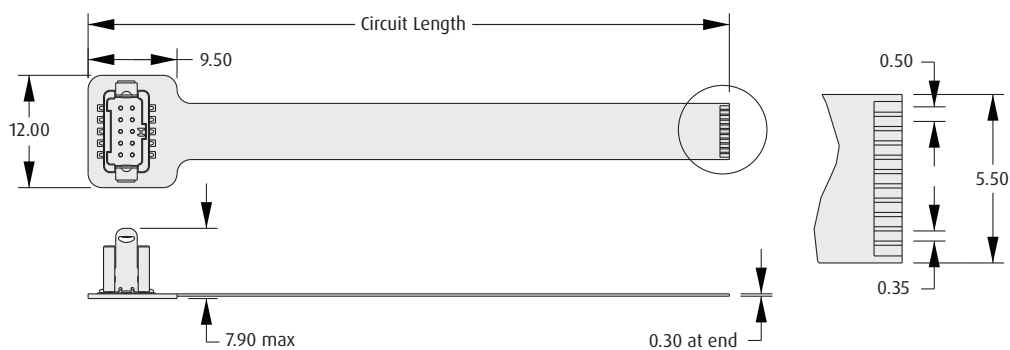
# Gecko with Latches Connectors

## Flexible Circuit Assemblies

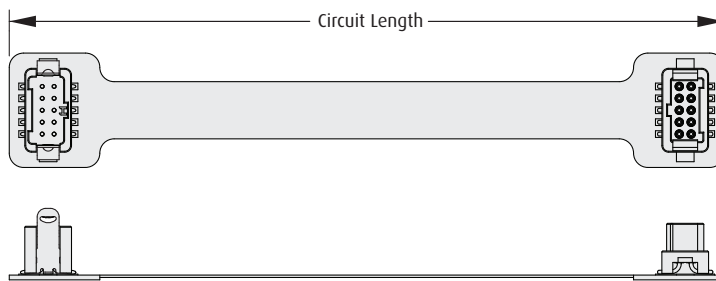
- ❖ Surface mount connectors with latches assembled to flexible printed circuit for an alternative to cable connection.
- ❖ Improved bend radius and lower mated height than equivalent cable assemblies.
- ❖ The free end of the single-ended assembly is compatible with 0.5mm pitch FPC connectors.
- ❖ Contact Harwin for alternative connector sizes and cable lengths.



### MALE SINGLE ENDED



### MALE - FEMALE DOUBLE ENDED



### HOW TO ORDER

**G125 - F1 MS1 10 - 075 - XXX**

#### SERIES CODE

#### CONNECTOR - FIRST END

**MS1** Male with Latches

#### TOTAL NO. OF CONTACTS

**10**

#### CONNECTOR - SECOND END

|            |                                |
|------------|--------------------------------|
| <b>L</b>   | Free End (Single Ended)        |
| <b>FS1</b> | Female compatible with Latches |

#### CIRCUIT LENGTH

**075** 75mm

All dimensions in mm.

Patent Published

# Gecko Connectors Tooling

- ❖ Instruction sheets can be accessed at [www.harwin.com/instructions](http://www.harwin.com/instructions).
- ❖ A Gecko Crimping Instruction video is available at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).

| HAND CRIMP TOOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | POSITIONER             |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|-----------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--|---------------|-----------------|--------------|-----------------|
| <ul style="list-style-type: none"> <li>❖ Precision tool with ratchet mechanism and 8-indent form.</li> <li>❖ Must be used with positioner.</li> <li>❖ Instruction sheet available.</li> </ul>  <table border="1"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td>Signal crimps</td><td><b>Z125-900</b></td></tr> <tr> <td>Power crimps</td><td><b>Z125-903</b></td></tr> </tbody> </table> | ORDER CODE             |  | Signal crimps   | <b>Z125-900</b> | Power crimps                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Z125-903</b> | <ul style="list-style-type: none"> <li>❖ Must be used with hand crimp tool.</li> </ul>  <table border="1"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td>Signal crimps</td><td><b>Z125-901</b></td></tr> <tr> <td>Power crimps</td><td><b>Z125-904</b></td></tr> </tbody> </table> | ORDER CODE      |  | Signal crimps | <b>Z125-901</b> | Power crimps | <b>Z125-904</b> |
| ORDER CODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| Signal crimps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Z125-900</b>        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| Power crimps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Z125-903</b>        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| ORDER CODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| Signal crimps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Z125-901</b>        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| Power crimps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Z125-904</b>        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| INSERTION/REMOVAL TOOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | INSERTION/REMOVAL TOOL |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| <ul style="list-style-type: none"> <li>❖ For inserting and removing crimped signal contacts into the rear of housings.</li> <li>❖ Instruction sheet available.</li> </ul>  <table border="1"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td colspan="2"><b>Z125-902</b></td></tr> </tbody> </table>                                                                                      | ORDER CODE             |  | <b>Z125-902</b> |                 | <ul style="list-style-type: none"> <li>❖ For inserting and removing crimped power contacts into the rear of housings.</li> <li>❖ Instruction sheet available.</li> </ul>  <table border="1"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td colspan="2"><b>Z125-905</b></td></tr> </tbody> </table> | ORDER CODE      |                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Z125-905</b> |  |               |                 |              |                 |
| ORDER CODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| <b>Z125-902</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| ORDER CODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |
| <b>Z125-905</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |  |                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                                                                                                                                                                                                                                                                                                                                                                                                     |                 |  |               |                 |              |                 |

All dimensions in mm.

Patent Published

# Gecko Connectors Tooling

❖ Instruction sheets can be accessed at [www.harwin.com/instructions](http://www.harwin.com/instructions).

GECKO

|                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>HEX DRIVE BIT</b></p> <ul style="list-style-type: none"> <li>❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings.</li> <li>❖ For use with torque tooling or similar equipment.</li> </ul>  <p><b>ORDER CODE</b><br/>Z9950-00</p>                   | <p><b>BALL HEX DRIVER</b></p> <ul style="list-style-type: none"> <li>❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings.</li> <li>❖ Ball-shaped end can be used at a wide range of angles.</li> </ul>  <p><b>ORDER CODE</b><br/>Z9952-00</p> |
| <p><b>SCREWDRIVER</b></p> <ul style="list-style-type: none"> <li>❖ For use with Gecko Screw-Lok board mount nuts.</li> <li>❖ Board mount nuts to be tightened to a torque of <math>21 \pm 2\text{cmN}</math>.</li> </ul>  <p><b>ORDER CODE</b><br/>Z80-298</p> | <p><b>DELATCH TOOL</b></p> <ul style="list-style-type: none"> <li>❖ For assisting with unmating latched connectors.</li> </ul>  <p><b>ORDER CODE</b><br/>Z125-926xx00</p> <p>Replace xx with No. of Contacts: 06, 10, 12, 16, 20, 26, 34 or 50</p>  |

All dimensions in mm.

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