

Gecko

Contents

Introduction	4
Gecko-MT: Power/Signal 1.25mm pitch High-Reliability Connectors	
Specifications	6
Female Connectors & Cable Assemblies	8
Male Connectors & Cable Assemblies	16
Male Backshells	24
Gecko-SL: Screw-Lok 1.25mm pitch High-Reliability Connectors	
Specifications	26
Female Connectors & Cable Assemblies	28
Male Connectors & Cable Assemblies	38
Male Backshells	50
Gecko with Latches: 1.25mm pitch High-Reliability Connectors	
Specifications	52
Female Connectors & Cable Assemblies	54
Male Connectors & Cable Assemblies	61
Flex Circuit Assemblies	70
Tooling	71

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

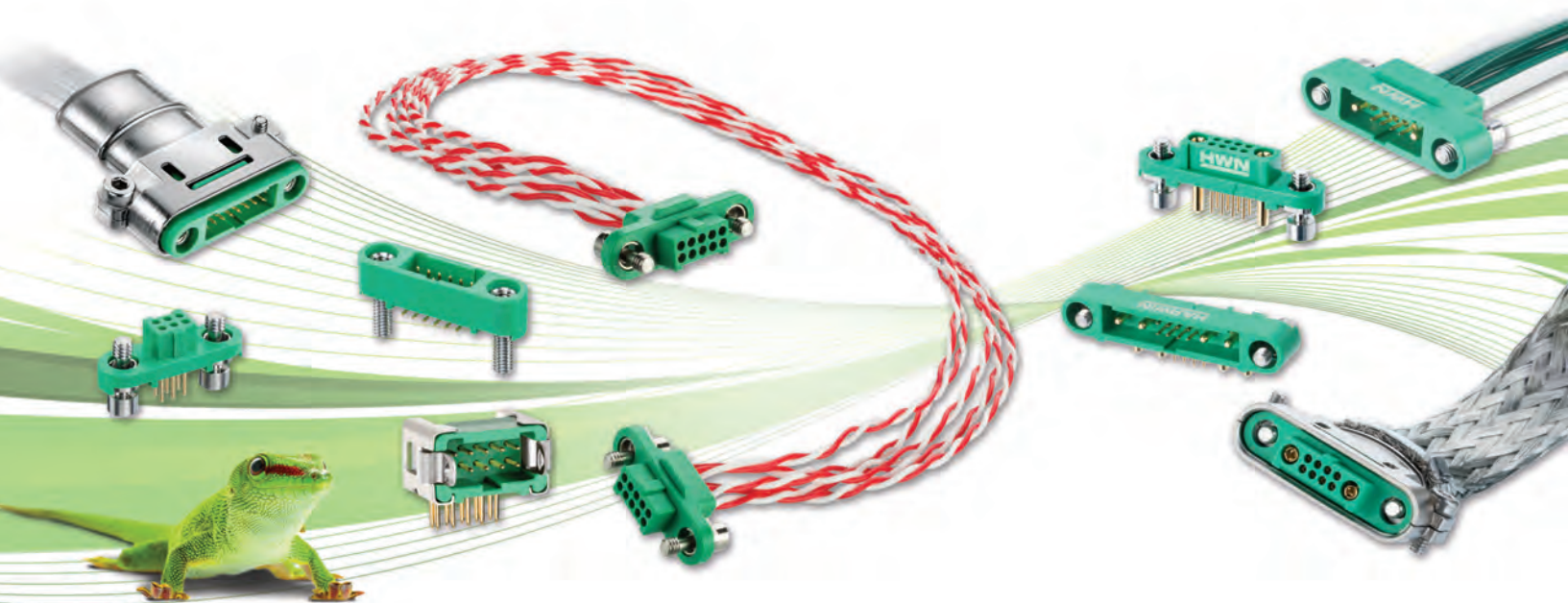
*Granted US9017089, Pending GB2501063, Pending EP2642604

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.



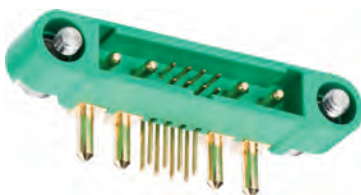
Pre-assembled Cable Configurations

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.



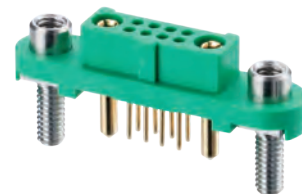
Minimal Outgassing

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, over 1.5 - 2.0µm (60 - 80µ") Nickel
Power Contacts:	0.8 - 1.0µm (30 - 40µ") Gold, 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

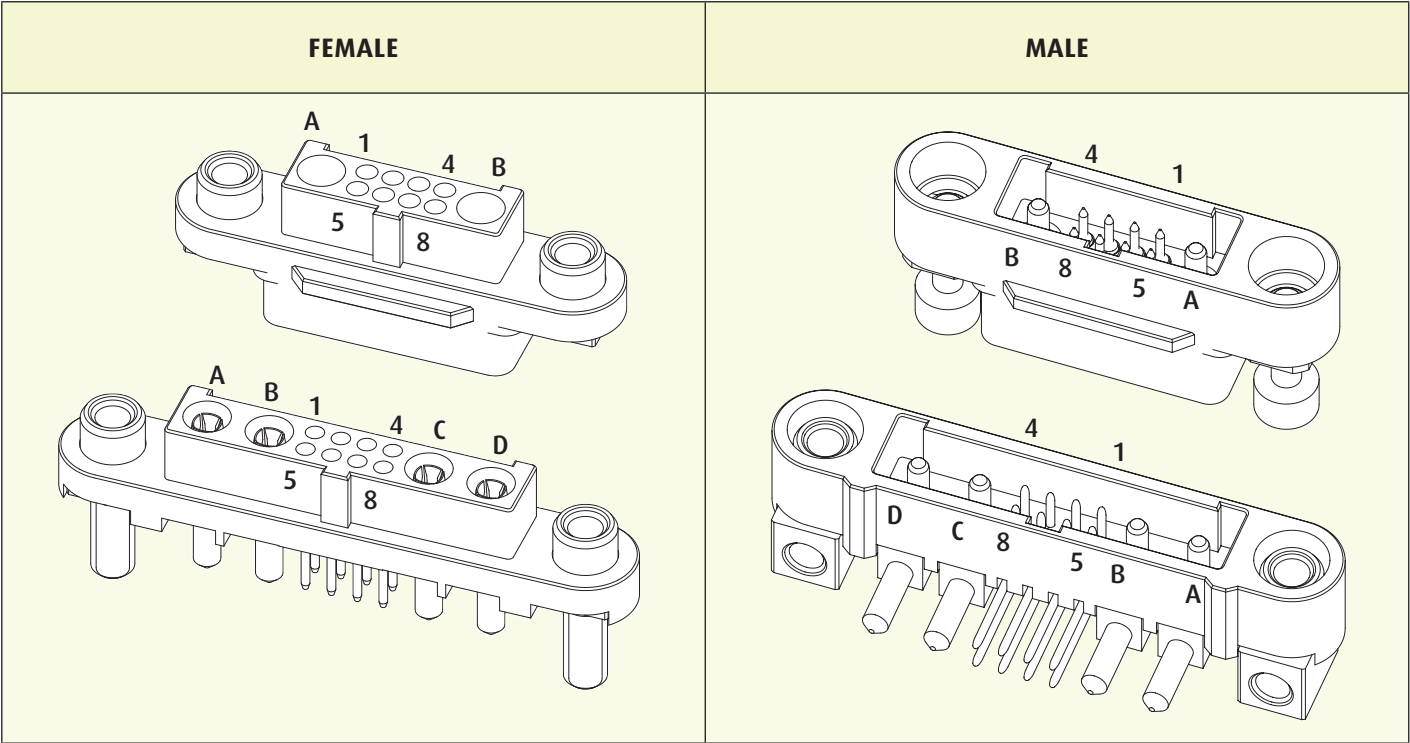
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force (signal):	2.8N max
Insertion force (power):	7.0N max
Withdrawal force:	0.2N min
Contact retention in housing:	6.0N max

Environmental

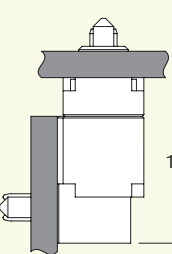
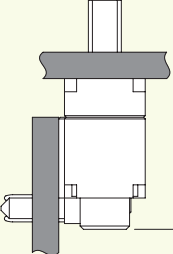
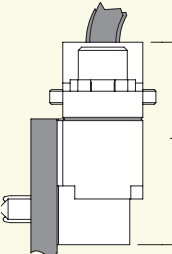
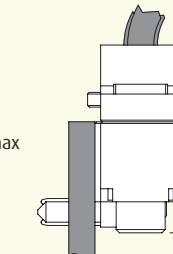
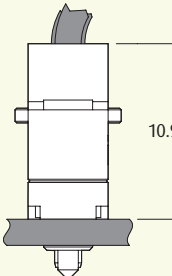
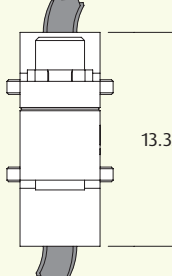
Environmental classification:	65/150/56 days at 93% RH
Operating temperature:	-65°C to +150°C
*Vibration sensitivity:	10Hz to 2000Hz, 1.5mm, 198m/s ² (20G) duration 6 hours
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms in Z axis 490m/s ² (50G) for 11ms in X &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

* Tested with latched connectors.

Gecko-MT Pin Numbering



Gecko-MT Mating Profiles

		FEMALE	
		VERTICAL THROUGHBOARD	CABLE
MALE	HORIZONTAL THROUGH-BOARD	 Standard  Reverse Fix	 Standard  Reverse Fix
	CABLE	 10.95 max	 13.35 max

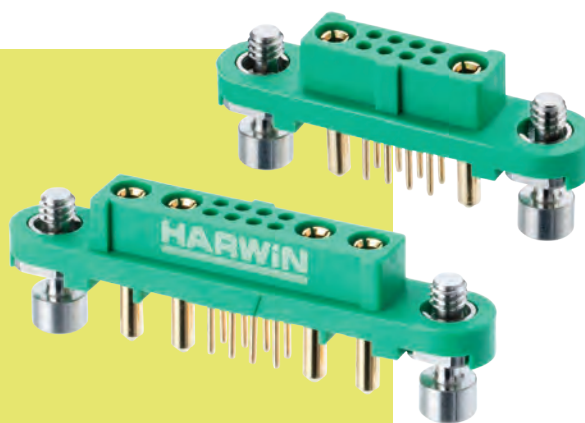
All dimensions in mm.

Patent Published

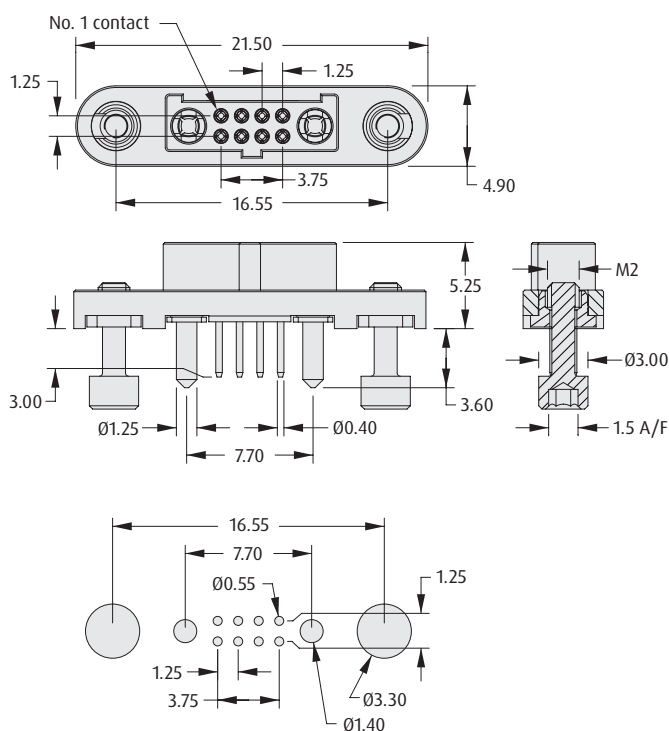
Gecko-MT Connectors

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.



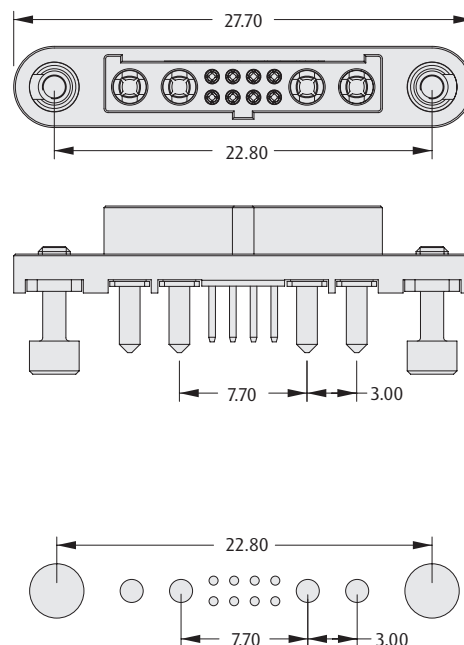
1+8+1



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

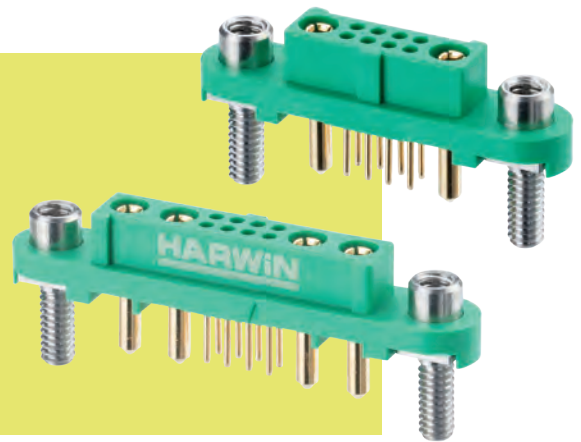
1AB1AB 1+8+1 Configuration

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
Recommended PC Board Pattern	Recommended PC Board Pattern	

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

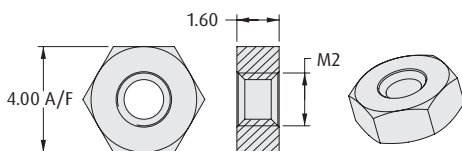
1AB1AB 1+8+1 Configuration

2AB2AB 2+8+2 Configuration

REQUIRED HARDWARE

Order separately from connector

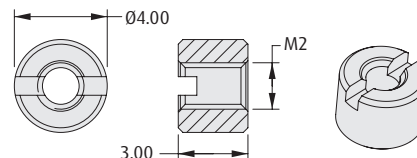
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

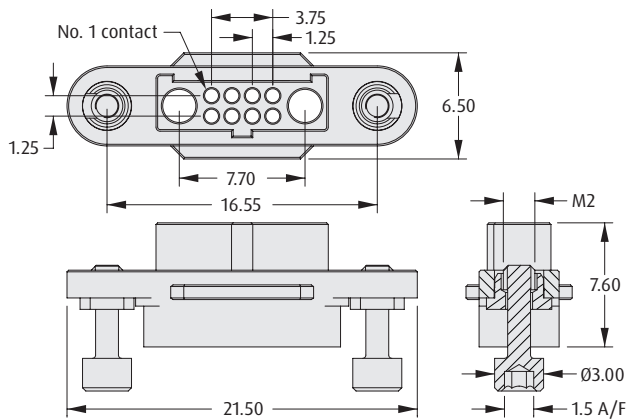
Gecko-MT Connectors

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.

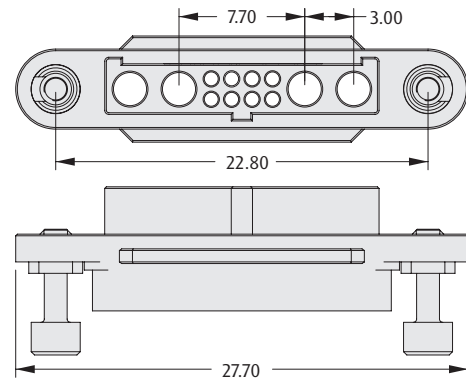


1+8+1



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.

HOW TO ORDER

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

SERIES CODE

SCREW-LOK

F1	Floating Hex Socket
00	No Fixings (Use with Metal Hoods)

NO. OF CONTACTS

01-08-01	1+8+1 Configuration
02-08-02	2+8+2 Configuration

All dimensions in mm.

Patent Published

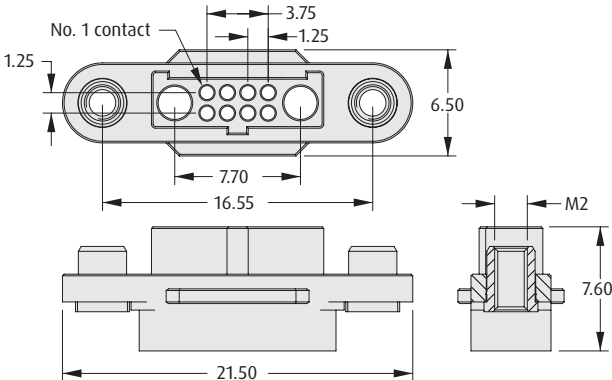
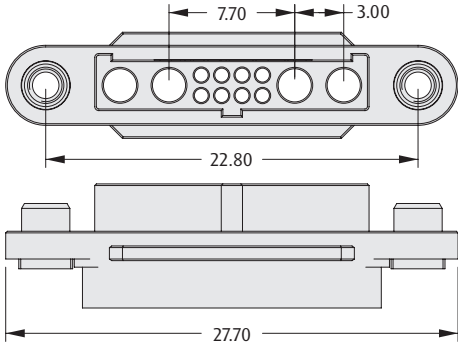
Gecko-MT Connectors

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				
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.	
HOW TO ORDER				
G125 22496 F2 0X 08 0X SERIES CODE SCREW-LOK F2 Internal Thread NO. OF CONTACTS 01-08-01 1+8+1 Configuration 02-08-02 2+8+2 Configuration				

All dimensions in mm.

Patent Published

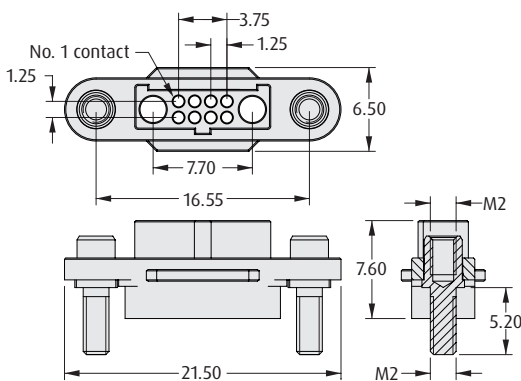
Gecko-MT Connectors

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.

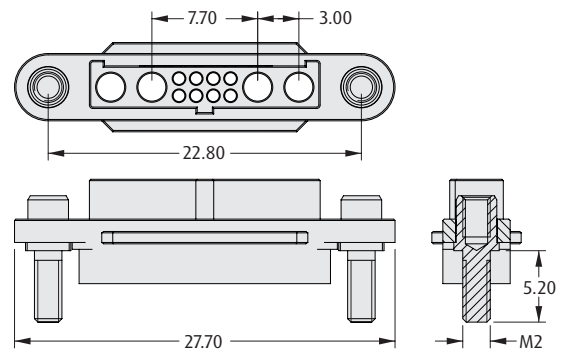


1+8+1



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.

HOW TO ORDER

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

SERIES CODE

SCREW-LOK

F3 With 5.2mm Panel Mount stud

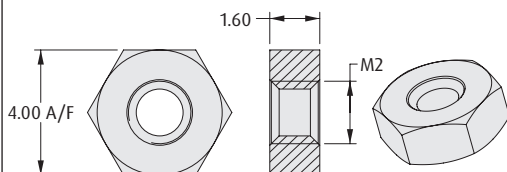
NO. OF CONTACTS

01-08-01	1+8+1 Configuration
02-08-02	2+8+2 Configuration

REQUIRED HARDWARE

Order separately from connector

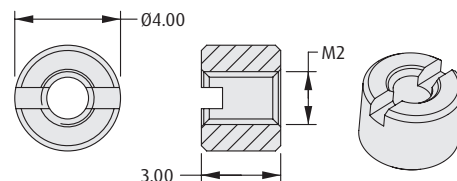
Hexagonal Board Mount Nut



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.



GECKO-MT

CONTACTS		POWER CONTACT										
26 AWG		18 AWG										
28 – 32 AWG		WIRE STRIPPING DETAILS										
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 crimp housings shown on previous pages. ❖ Pre-cabled contacts shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.										
HOW TO ORDER												
G125 – 0XX 00 05												
SERIES CODE <table><tr><th>TYPE</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>		TYPE	001	Female 26 AWG crimp contact	002	Female 28-32 AWG crimp contact	050	Female power crimp contact	FINISH <table><tr><td>05</td><td>Gold</td></tr></table>		05	Gold
TYPE												
001	Female 26 AWG crimp contact											
002	Female 28-32 AWG crimp contact											
050	Female power crimp contact											
05	Gold											

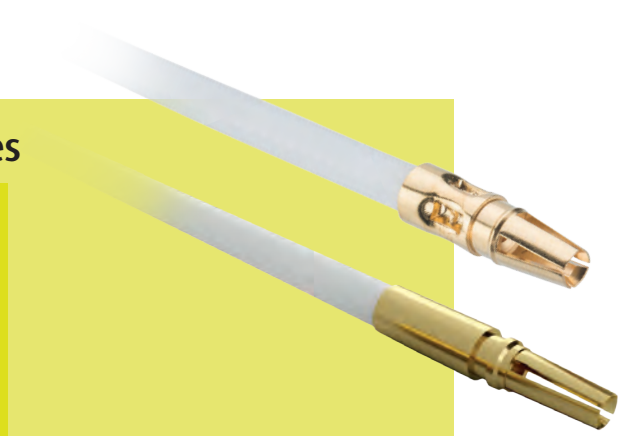
All dimensions in mm.

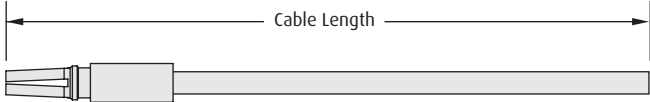
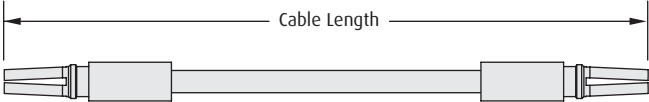
Patent Published

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		FEMALE – FEMALE															
																	
TOOLS																	
Contact Insertion/Removal Tool – Z125-902 (signal), Z125-905 (power)		❖ Female crimp housings and loose contacts shown on previous pages. ❖ Full cable assemblies shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.															
HOW TO ORDER																	
SERIES CODE G125 GENDER - FIRST END F CABLE SIZE W1 CABLE COLOR 94 TERMINATION - SECOND END L CABLE LENGTH 0150 G125 - F XX XXXX X 94																	
<table><tr><th colspan="2">CABLE SIZE</th></tr><tr><td>W1</td><td>26 AWG (signal)</td></tr><tr><td>W2</td><td>28 AWG (signal)</td></tr><tr><td>W3</td><td>30 AWG (signal)</td></tr><tr><td>P1</td><td>18 AWG (power)</td></tr></table>		CABLE SIZE		W1	26 AWG (signal)	W2	28 AWG (signal)	W3	30 AWG (signal)	P1	18 AWG (power)	<table><tr><th colspan="2">CABLE COLOR</th></tr><tr><td>94</td><td>White</td></tr></table>		CABLE COLOR		94	White
CABLE SIZE																	
W1	26 AWG (signal)																
W2	28 AWG (signal)																
W3	30 AWG (signal)																
P1	18 AWG (power)																
CABLE COLOR																	
94	White																
<table><tr><th colspan="2">GENDER - FIRST END</th></tr><tr><td>F</td><td>Female</td></tr></table>		GENDER - FIRST END		F	Female	<table><tr><th colspan="2">TERMINATION - SECOND END</th></tr><tr><td>L</td><td>Loose cut end</td></tr><tr><td>F</td><td>Female</td></tr></table>		TERMINATION - SECOND END		L	Loose cut end	F	Female				
GENDER - FIRST END																	
F	Female																
TERMINATION - SECOND END																	
L	Loose cut end																
F	Female																
<table><tr><th colspan="2">CABLE LENGTH</th></tr><tr><td>0150</td><td>150mm</td></tr><tr><td>0300</td><td>300mm (double-ended)</td></tr><tr><td>0450</td><td>450mm (single-ended)</td></tr></table>		CABLE LENGTH		0150	150mm	0300	300mm (double-ended)	0450	450mm (single-ended)								
CABLE LENGTH																	
0150	150mm																
0300	300mm (double-ended)																
0450	450mm (single-ended)																

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.



FEMALE SINGLE ENDED

FEMALE - FEMALE

HOW TO ORDER

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

SERIES CODE

GENDER - FIRST END

CABLE SIZE (SIGNAL)

SCREW-LOK

TERMINATION - SECOND END

CABLE LENGTH

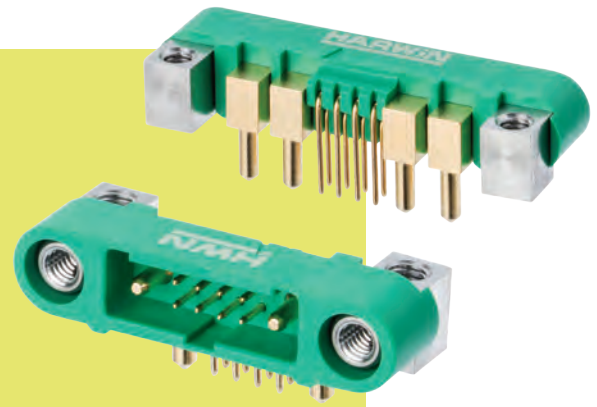
POWER CONTACTS

All dimensions in mm. Patent Published

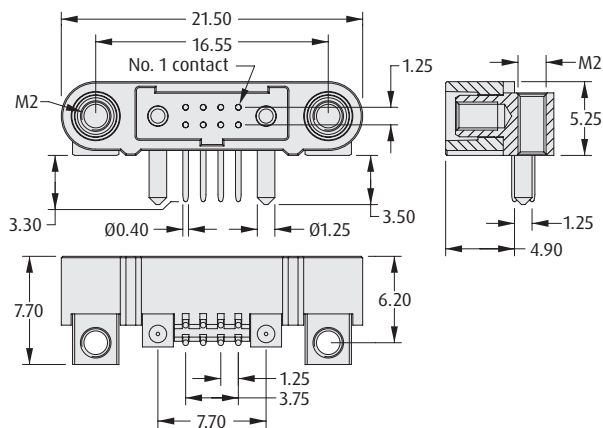
Gecko-MT Connectors

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.

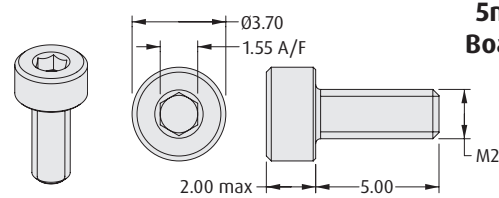


1+8+1



REQUIRED HARDWARE

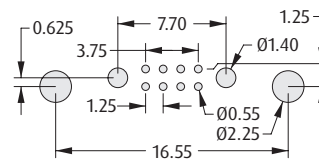
Order separately from connector



**5mm Hex Socket
Board Mount Bolt**

ORDER CODE

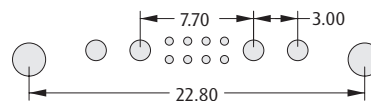
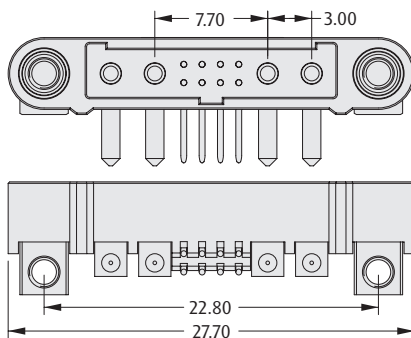
G125-4520000B



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

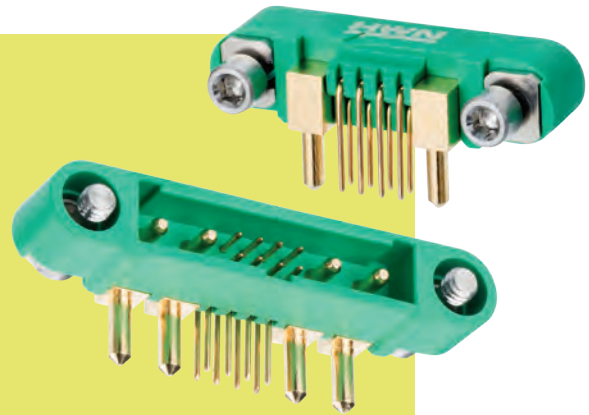
All dimensions in mm.

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

All dimensions in mm.

Patent Published

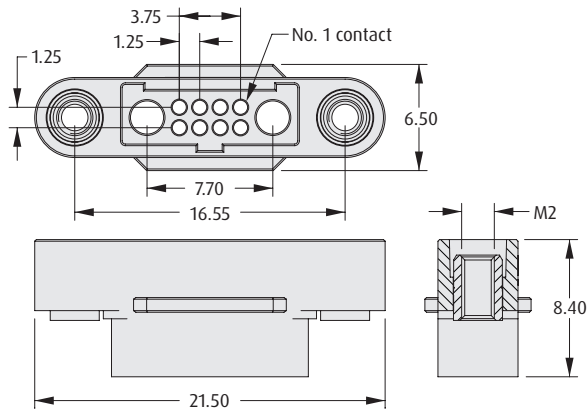
Gecko-MT Connectors

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.

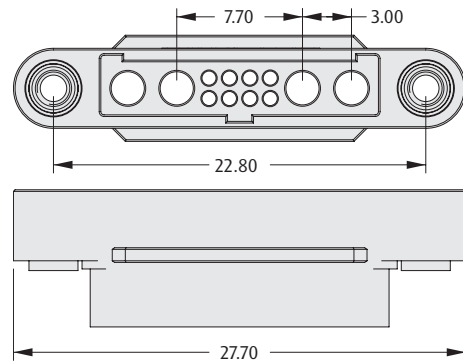


1+8+1



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.

HOW TO ORDER

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

SERIES CODE

SCREW-LOK

M1 Internal Thread

NO. OF CONTACTS

01-08-01	1+8+1 Configuration
02-08-02	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.

HOW TO ORDER

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

SERIES CODE

SCREW-LOK

M2 With 5.2mm Panel Mount stud

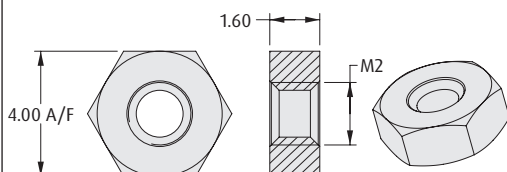
NO. OF CONTACTS

01-08-01	1+8+1 Configuration
02-08-02	2+8+2 Configuration

REQUIRED HARDWARE

Order separately from connector

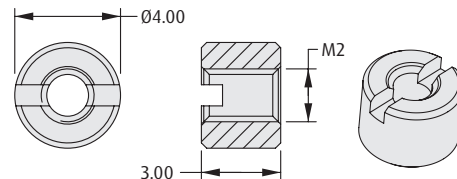
Hexagonal Board Mount Nut



ORDER CODE

G125-45000008

Slotted Board Mount Nut



ORDER CODE

G125-45100008

All dimensions in mm.

Patent Published

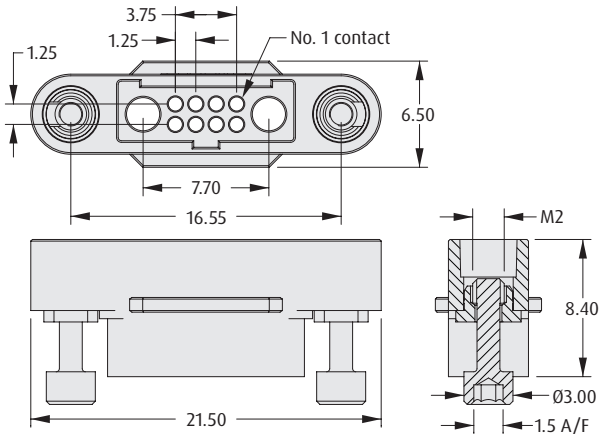
Gecko-MT Connectors

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.

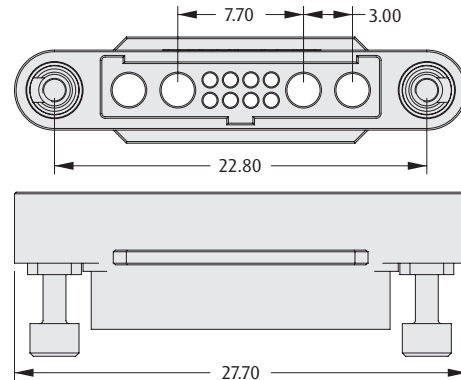


1+8+1



2+8+2

All other dimensions as 1+8+1



TOOLS

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.

HOW TO ORDER

G125 - 32496 M3 - 0X - 08 - 0X

SERIES CODE

SCREW-LOK

M3 Reverse Fix Floating Hex Socket

NO. OF CONTACTS

01-08-01	1+8+1 Configuration
02-08-02	2+8+2 Configuration

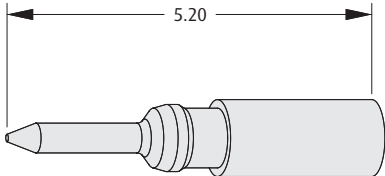
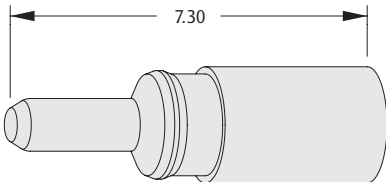
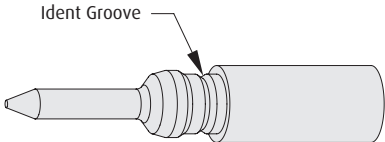
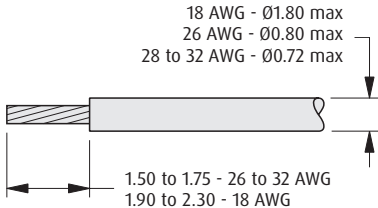
Gecko-MT Connectors

Male Crimp Contacts

- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ Instruction video online at www.harwin.com/harwintv.



GECKO-MT

CONTACTS		POWER CONTACT									
26 AWG 		18 AWG 									
28 - 32 AWG 		WIRE STRIPPING DETAILS 									
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 housings shown on previous pages. ❖ Pre-cabled contacts shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.									
HOW TO ORDER											
SERIES CODE <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> G125 - 1XX 00 05 FINISH 05Gold				TYPE		101	Male 26 AWG crimp contact	102	Male 28-32 AWG crimp contact	150	Male power crimp contact
TYPE											
101	Male 26 AWG crimp contact										
102	Male 28-32 AWG crimp contact										
150	Male power crimp contact										

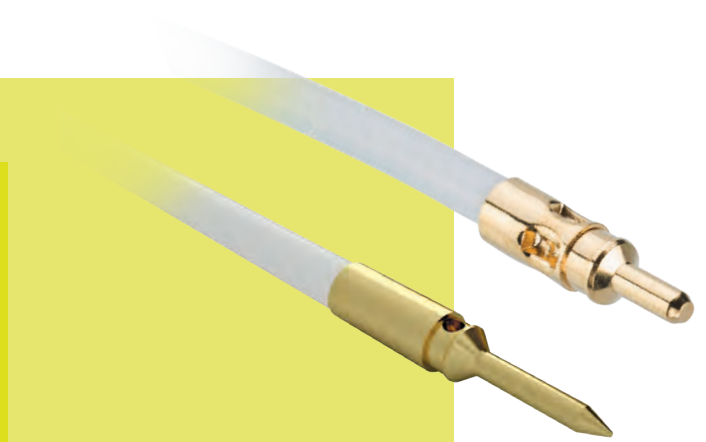
All dimensions in mm.

Patent Published

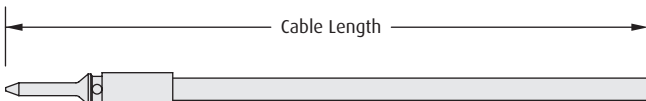
Gecko-MT Connectors

Male Crimp Contacts – Pre-Crimped Wires

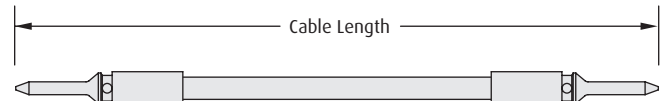
- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.



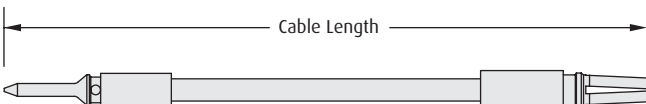
MALE SINGLE ENDED



MALE – MALE



MALE – FEMALE



TOOLS

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

- ❖ Male crimp housings and loose contacts shown on previous pages.
- ❖ Full cable assemblies shown on following page.
- ❖ Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

G125 – M XX XXXX X 94

SERIES CODE

GENDER – FIRST END

M Male

CABLE SIZE

W1	26 AWG (signal)
W2	28 AWG (signal)
W3	30 AWG (signal)
P1	18 AWG (power)

CABLE COLOR

94 White

TERMINATION – SECOND END

L	Loose cut end
F	Female
M	Male

CABLE LENGTH

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

All dimensions in mm.

Patent Published

Gecko-MT Connectors

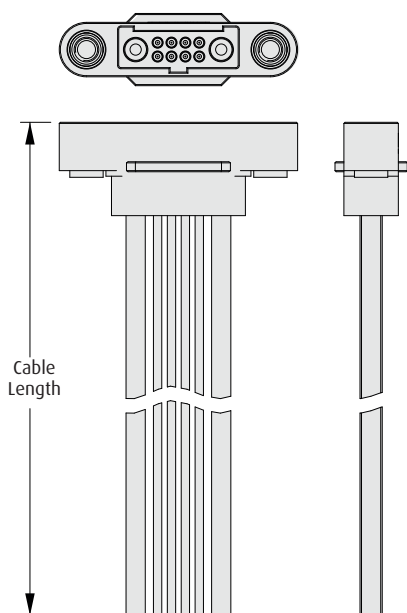
Male Cable Assemblies

- 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.

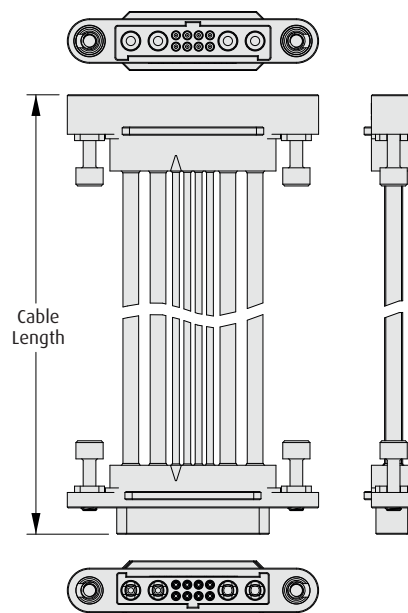


GECKO-MT

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

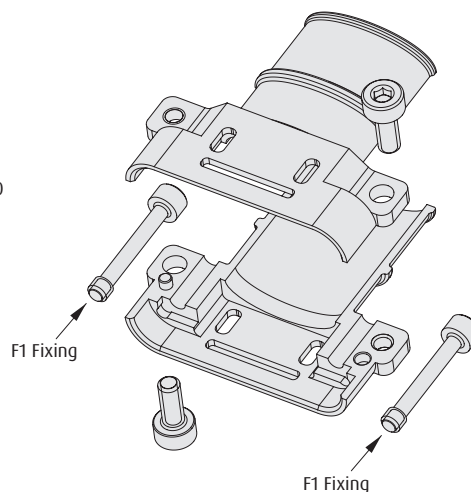
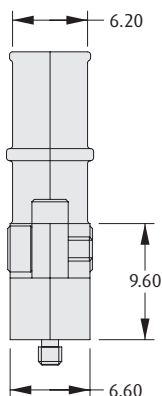
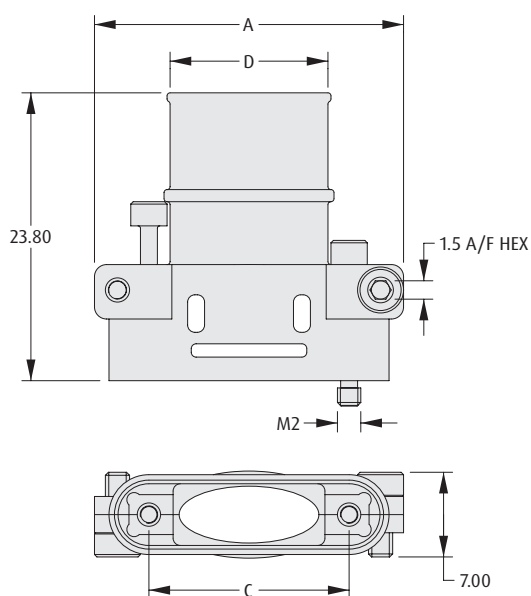
Gecko-MT Connectors

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

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

HOW TO ORDER

G125 - 964 XX XX

SERIES CODE

SCREW-LOK

00	Use with G125-32496M1 male housings
F1	Use with G125-2249600 female housings

TOTAL NO. OF CONTACTS

16	Use with 1+8+1 configuration
26	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

M80-9470000	Length = 206.8mm
M80-9480000	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.

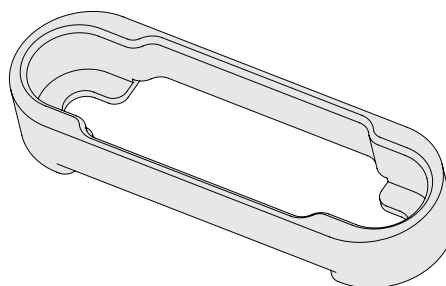
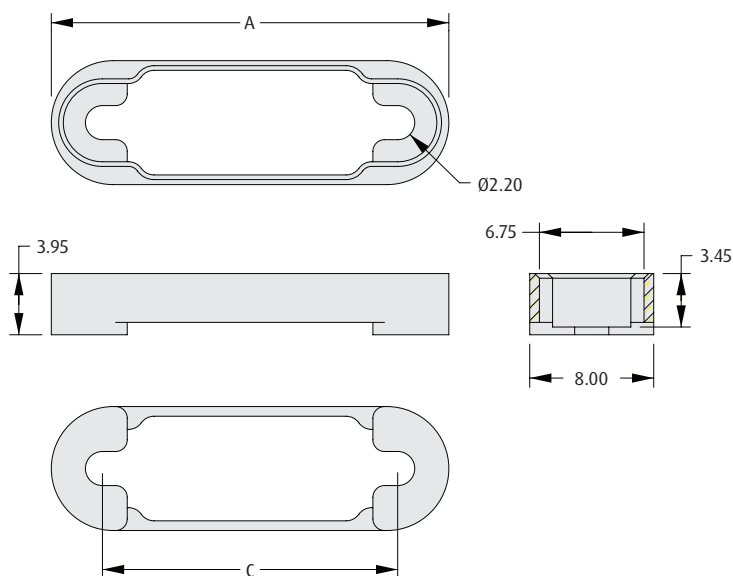


GECKO-MT

HOOD / BACKSHELL

CALCULATION

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



HOW TO ORDER

G125 - 960 XX 02

SERIES CODE

TOTAL NO. OF CONTACTS

16	Use with 1+8+1 configuration
26	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, over 1.5 – 2.0µm (60 – 80µ") Nickel
Screw-Loks:	Stainless Steel

Electrical

Current	
Individual contacts in isolation:	2.8A max (At 25°C)
All contacts simultaneously:	2.0A max (At 25°C)
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
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

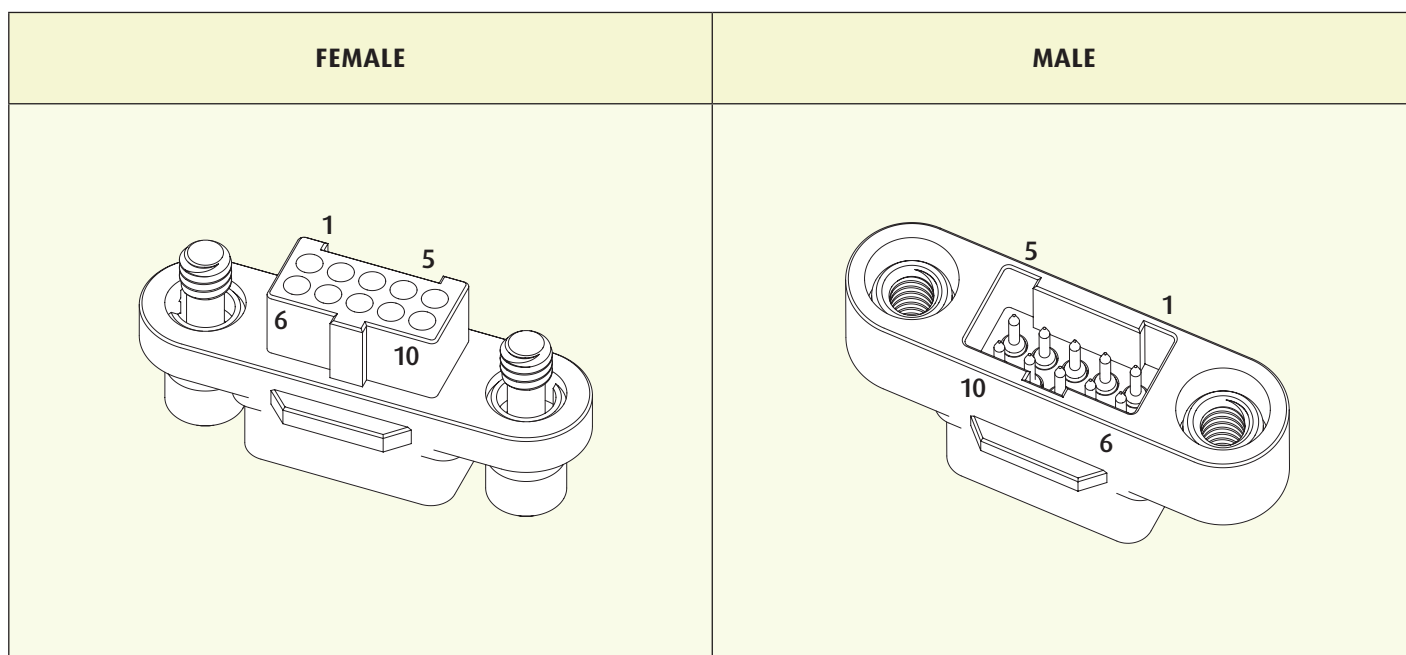
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force:	2.8N max
Withdrawal force:	0.2N min
Contact retention in housing:	6N min

Environmental

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

* Tested with latched connectors.

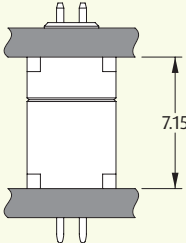
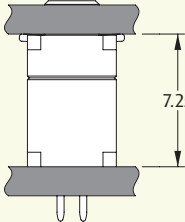
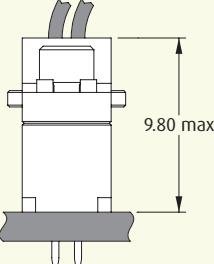
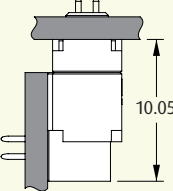
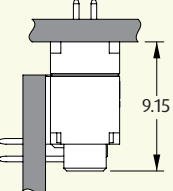
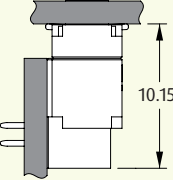
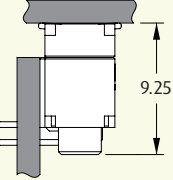
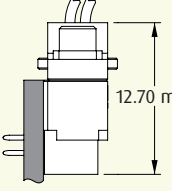
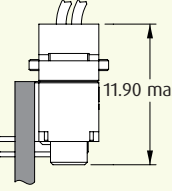
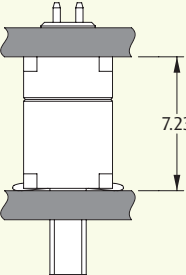
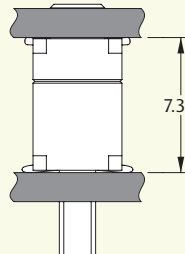
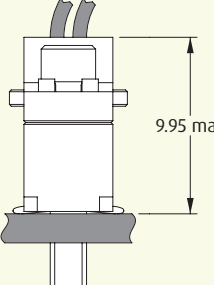
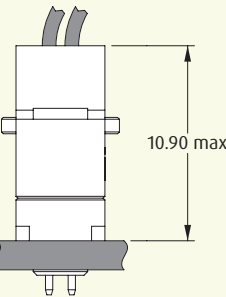
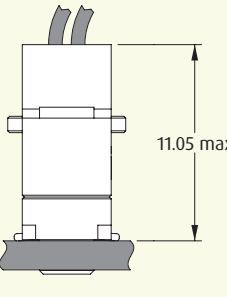
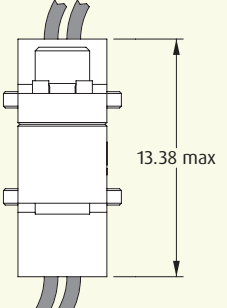
Pin Numbering



All dimensions in mm.

Patent Published

Gecko-SL Mating Profiles

		FEMALE		
		VERTICAL THROUGHBOARD	VERTICAL SMT	CABLE
MALE	VERTICAL THROUGHBOARD			
	HORIZONTAL THROUGHBOARD	  Standard Reverse Fix	  Standard Reverse Fix	  Standard Reverse Fix
	VERTICAL SMT			
	CABLE			

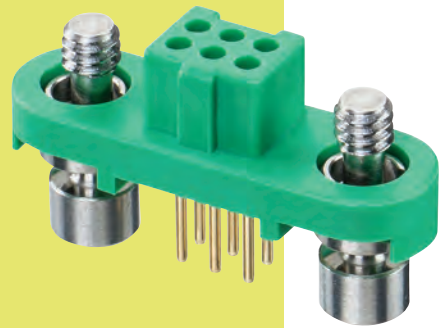
All dimensions in mm.

Patent Published

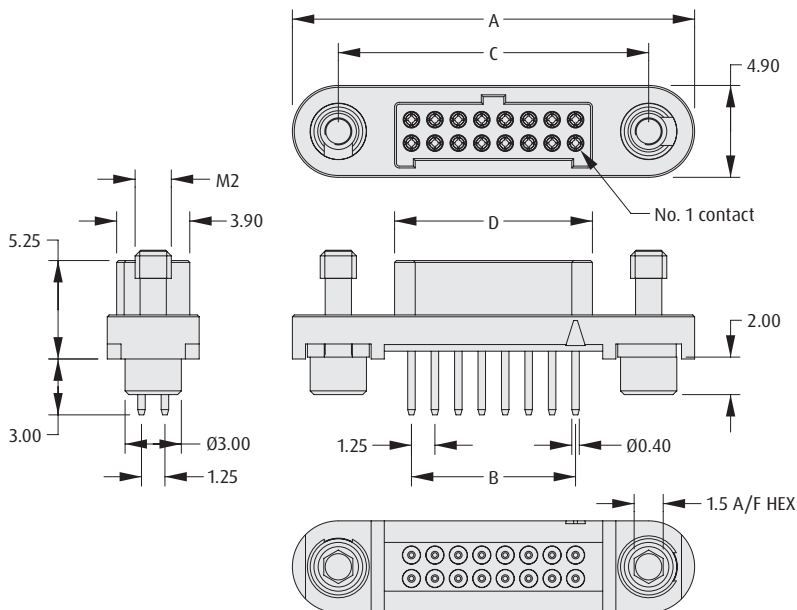
Gecko-SL Connectors

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.

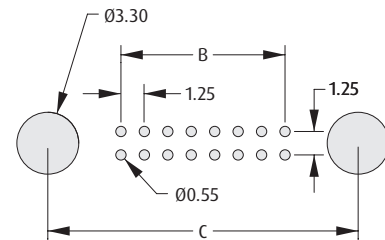


3mm THROUGHBOARD



CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - F V1 XX 05 F1 X

SERIES CODE

TYPE

V1 3mm Throughboard

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

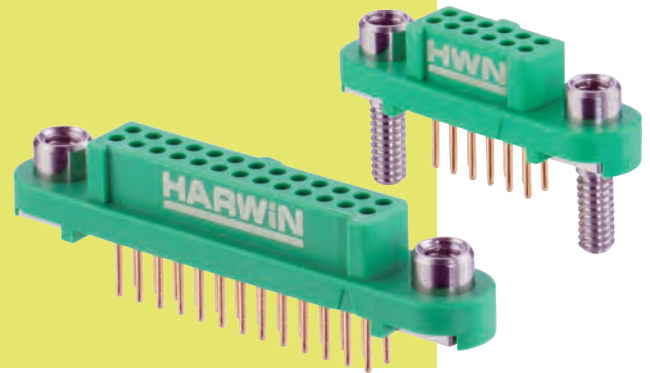
TOTAL NO. OF CONTACTS

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

Gecko-SL Connectors

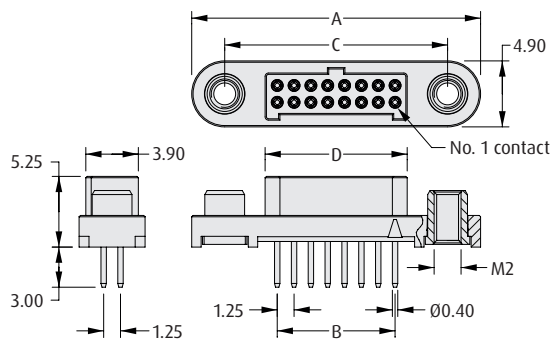
Female Throughboard - Reverse Fix

- ❖ 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

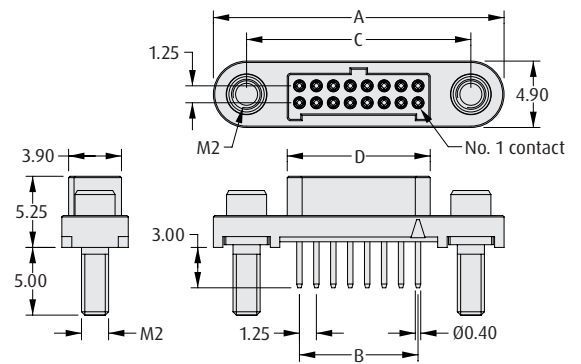


Recommended PC Board Pattern

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

R	Tape & Reeled
P	Tape & Reel strips

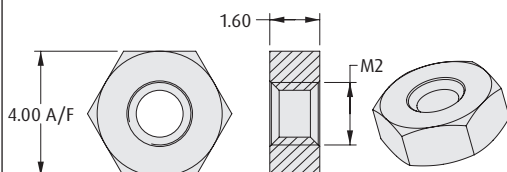
SCREW-LOK

F2	Internal Thread
F3	With 5mm Board Mount stud

REQUIRED HARDWARE

Order separately from connector

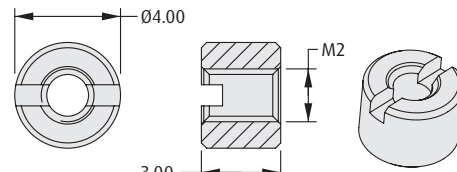
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

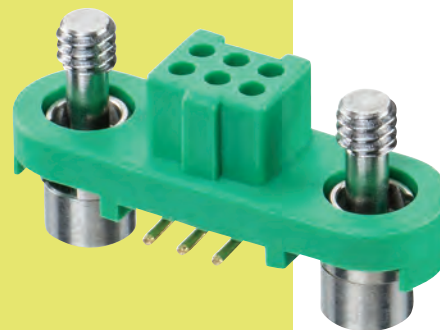
All dimensions in mm.

Patent Published

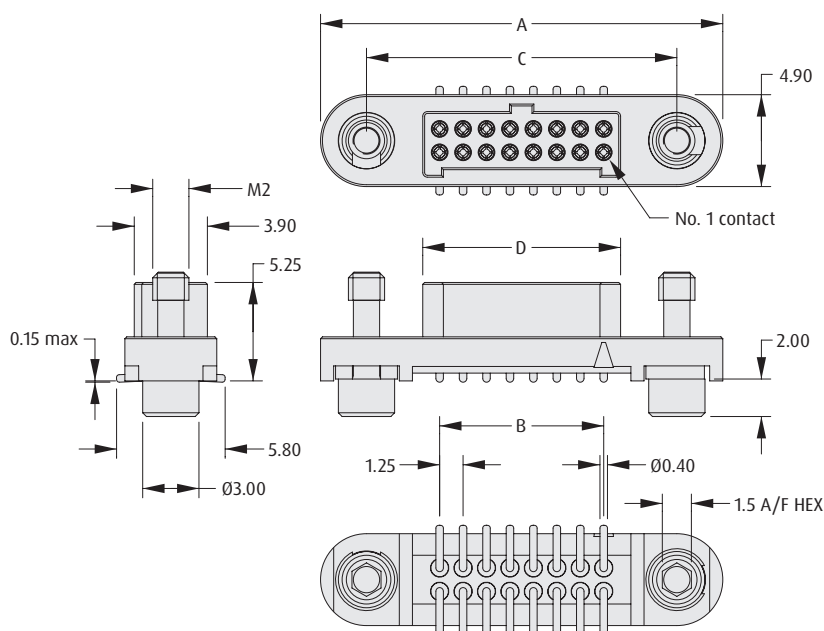
Gecko-SL Connectors

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.

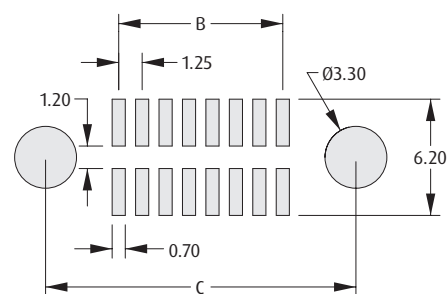


SURFACE MOUNT



CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - F S1 XX 05 F1 X

SERIES CODE

TYPE

S1 Surface Mount

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

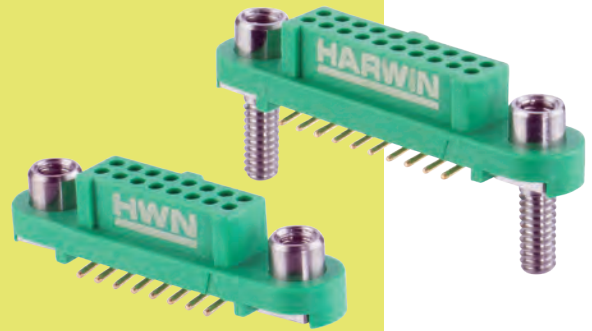
TOTAL NO. OF CONTACTS

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

Gecko-SL Connectors

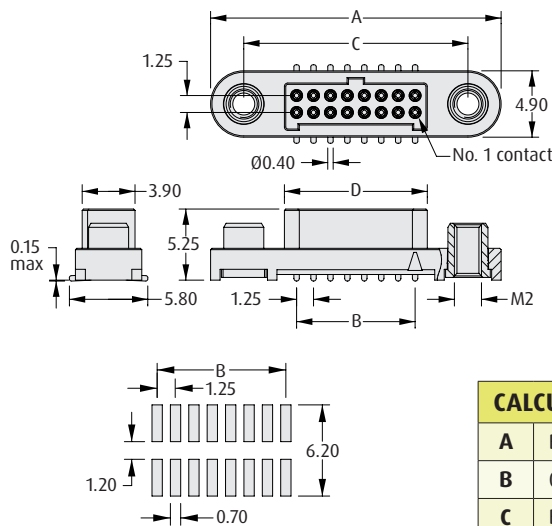
Female Surface Mount - Reverse Fix

- ❖ 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

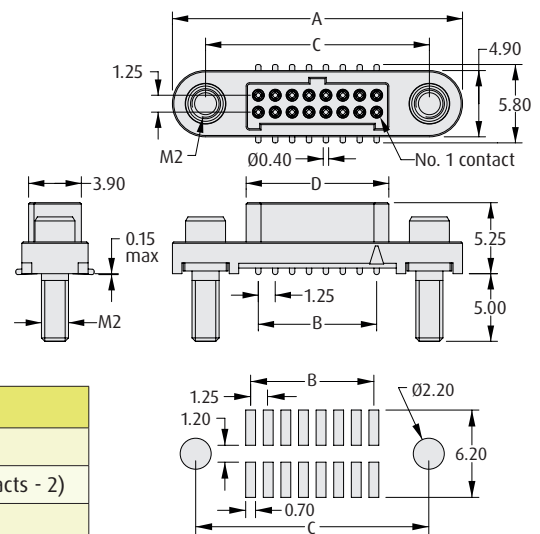


Recommended PC Board Pattern

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

R	Tape & Reeled
P	Tape & Reel strips

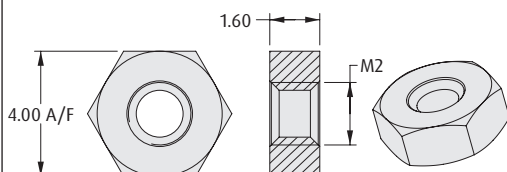
SCREW-LOK

F2	Internal Thread
F3	With 5mm Board Mount stud

REQUIRED HARDWARE

Order separately from connector

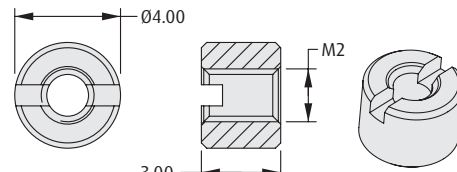
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

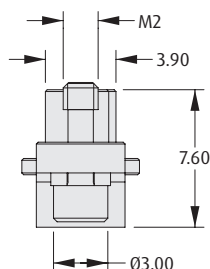
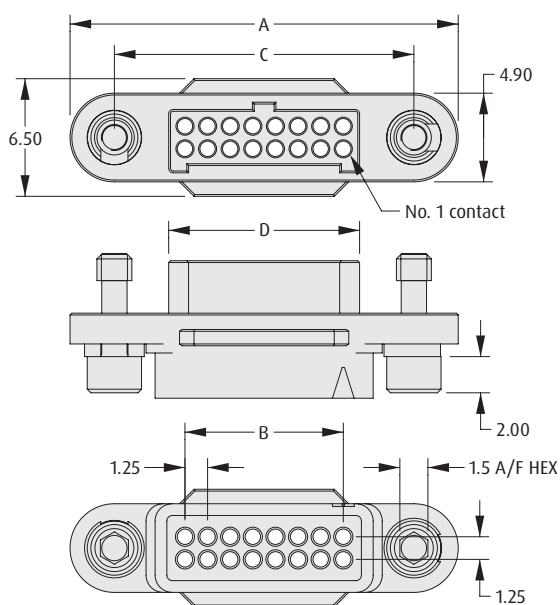
Gecko-SL Connectors

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

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

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.

HOW TO ORDER

G125 - 224 XX 96 XX

SERIES CODE

TYPE
224 Female Housing

TOTAL NO. OF CONTACTS
06, 10, 12, 16, 20, 26, 34, 50

SCREW-LOK

F1	Floating Hex Socket fixings
00	No fixings (use with Metal Hoods)

FINISH
96 Housing

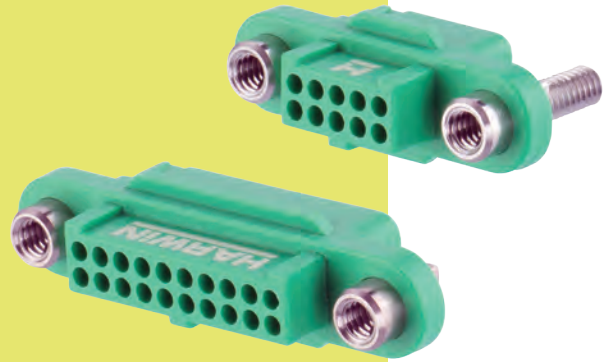
All dimensions in mm.

Patent Published

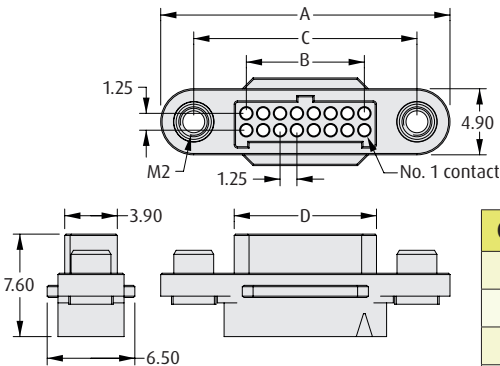
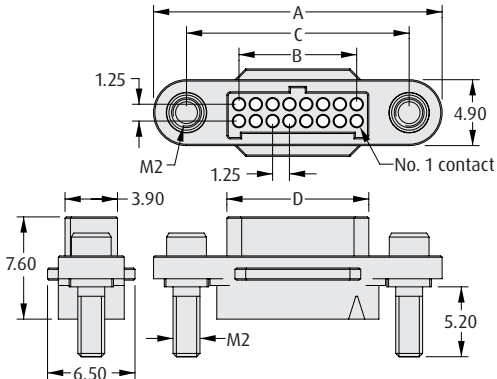
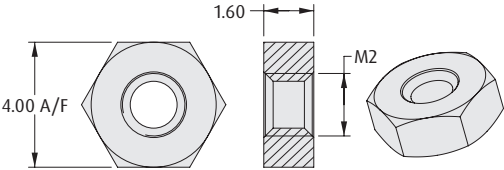
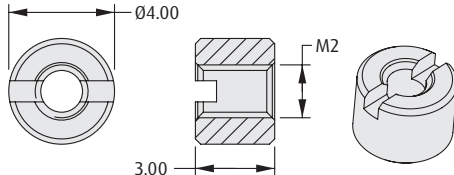
Gecko-SL Connectors

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													
<table><tr><th>SERIES CODE</th></tr><tr><td>G125 - 224 XX 96 FX</td></tr></table>		SERIES CODE	G125 - 224 XX 96 FX	<table><tr><th colspan="2">SCREW-LOK</th></tr><tr><td>F2</td><td>Internal Thread</td></tr><tr><td>F3</td><td>With 5.2mm Panel Mount stud</td></tr></table>		SCREW-LOK		F2	Internal Thread	F3	With 5.2mm Panel Mount stud		
SERIES CODE													
G125 - 224 XX 96 FX													
SCREW-LOK													
F2	Internal Thread												
F3	With 5.2mm Panel Mount stud												
<table><tr><th>TYPE</th></tr><tr><td>224 Female Housing</td></tr></table>		TYPE	224 Female Housing	<table><tr><th>FINISH</th></tr><tr><td>96 Housing</td></tr></table>		FINISH	96 Housing						
TYPE													
224 Female Housing													
FINISH													
96 Housing													
<table><tr><th>TOTAL NO. OF CONTACTS</th></tr><tr><td>06, 10, 12, 16, 20, 26, 34, 50</td></tr></table>		TOTAL NO. OF CONTACTS	06, 10, 12, 16, 20, 26, 34, 50										
TOTAL NO. OF CONTACTS													
06, 10, 12, 16, 20, 26, 34, 50													
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.											
REQUIRED HARDWARE		Order separately from connector											
Hexagonal Board Mount Nut  <table><tr><th>ORDER CODE</th></tr><tr><td>G125-4500000B</td></tr></table>		ORDER CODE	G125-4500000B	Slotted Board Mount Nut  <table><tr><th>ORDER CODE</th></tr><tr><td>G125-4510000B</td></tr></table>		ORDER CODE	G125-4510000B						
ORDER CODE													
G125-4500000B													
ORDER CODE													
G125-4510000B													

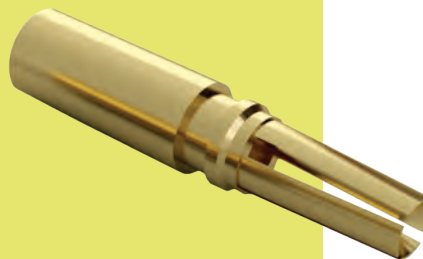
All dimensions in mm.

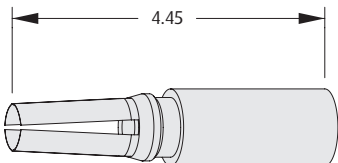
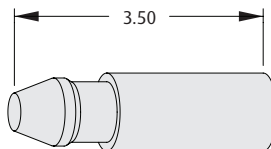
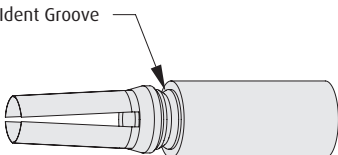
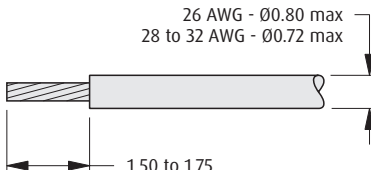
Patent Published

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



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

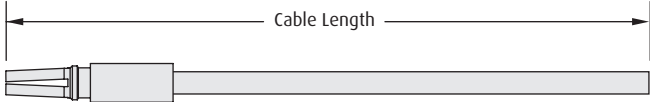
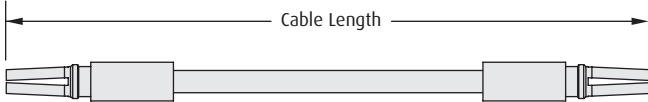
Gecko-SL Connectors

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.



GECKO-SL

FEMALE SINGLE ENDED		FEMALE – FEMALE	
			
TOOLS			
Contact Insertion/Removal Tool – Z125-902		❖ Female crimp housings and loose contacts shown on previous pages. ❖ Instruction sheets available at www.harwin.com/instructions.	
HOW TO ORDER			
SERIES CODE G125 GENDER - FIRST END FFemale CABLE SIZE W126 AWG W228 AWG W330 AWG CABLE COLOR 94White TERMINATION - SECOND END LLoose cut end FFemale CABLE LENGTH 0150150mm 0300300mm (double-ended) 0450450mm (single-ended) G125 - F WX XXXX X 94			

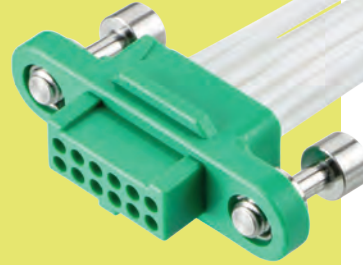
All dimensions in mm.

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

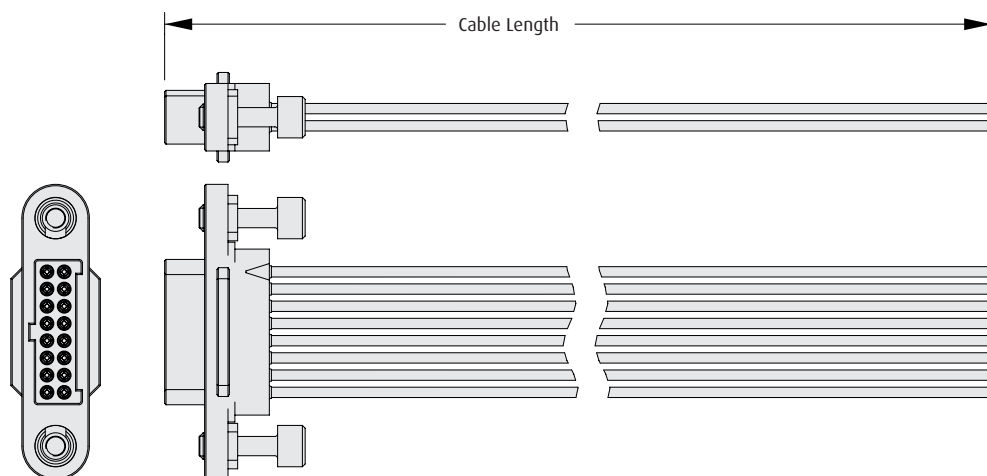
68 Multicolor cable (single-ended)

69 Shielded assembly (with metal backshells & braid)

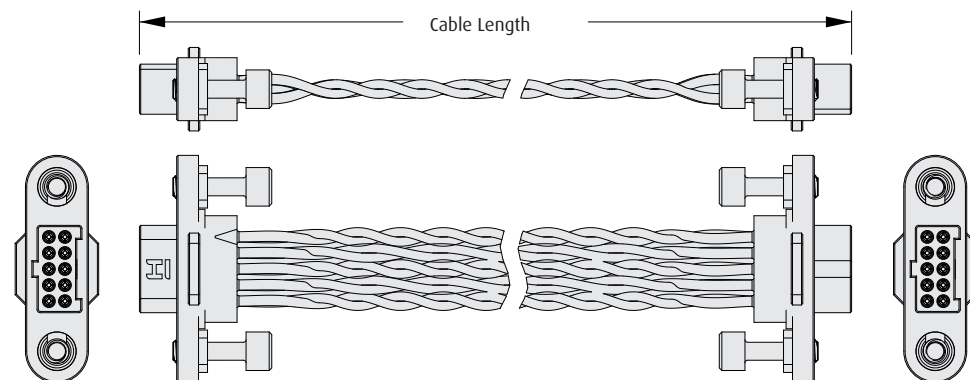
Gecko-SL Connectors

- ❖ 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.

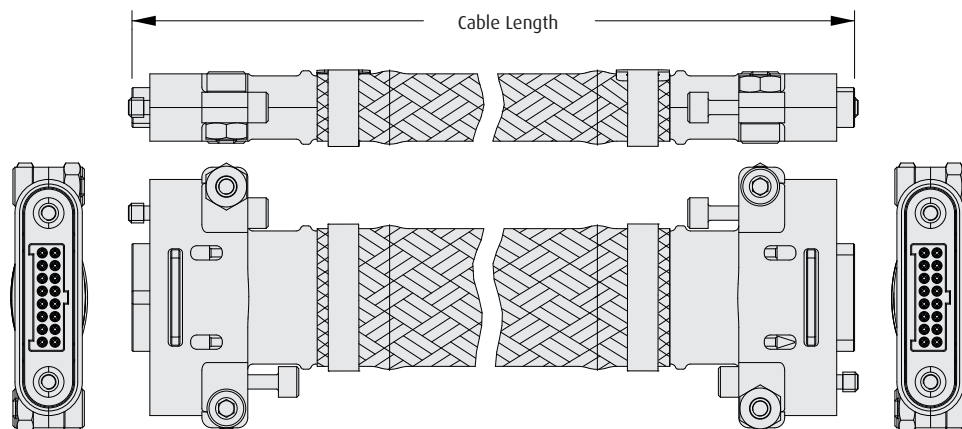
FEMALE SINGLE ENDED



FEMALE - FEMALE WITH TWISTED PAIRS



FEMALE - FEMALE WITH SHIELDING



All dimensions in mm.

Patent Published

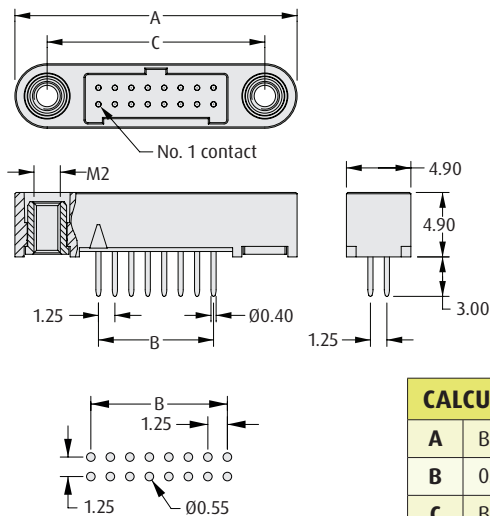
Gecko-SL Connectors

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

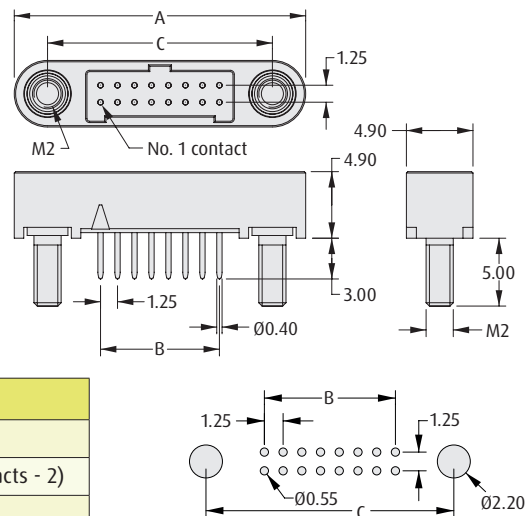


Recommended PC Board Pattern

CALCULATION

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

WITH BOARD MOUNT



Recommended PC Board Pattern

HOW TO ORDER

G125 - M V1 XX 05 MX X

SERIES CODE

TYPE

V1 3mm Throughboard

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

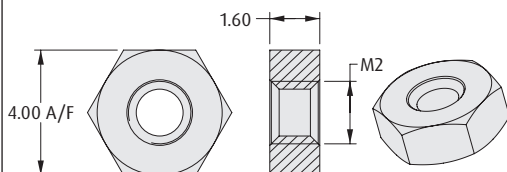
SCREW-LOK

M1	Internal Thread
M2	With 5mm Board Mount Stud

REQUIRED HARDWARE

Order separately from connector

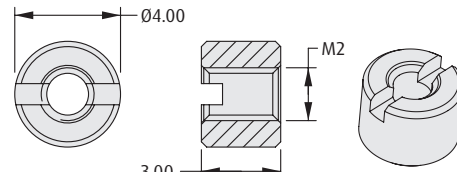
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

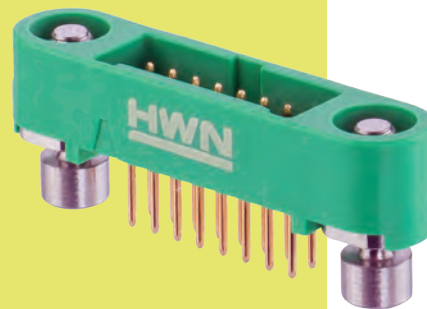
All dimensions in mm.

Patent Published

Gecko-SL Connectors

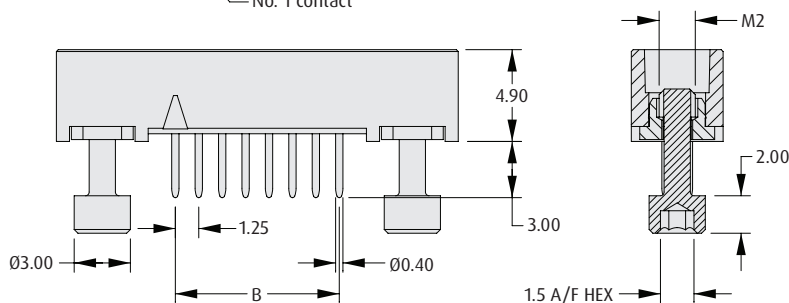
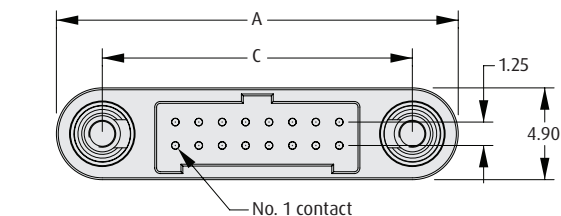
Male Vertical Throughboard - Reverse Fix

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



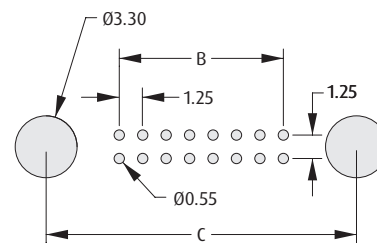
GECKO-SL

THROUGHBOARD



CALCULATION

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



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

R	Tape & Reeled
P	Tape & Reel strips

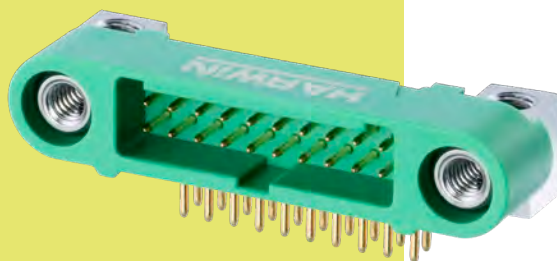
FINISH

05 Gold

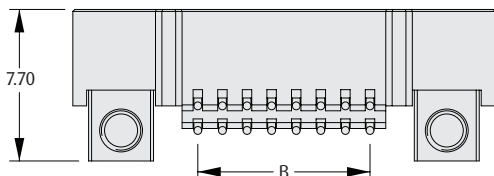
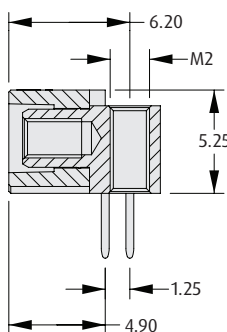
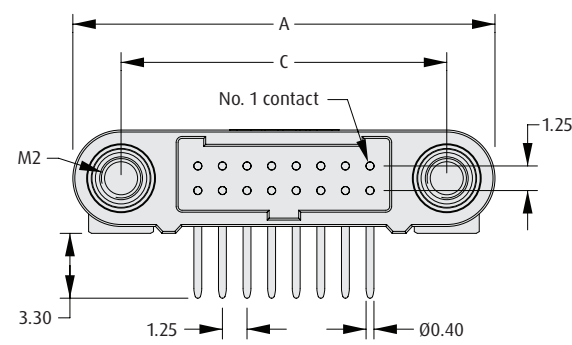
Gecko-SL Connectors

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.

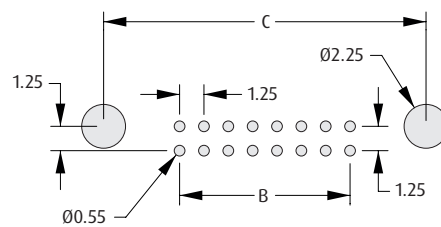


THROUGHBOARD



CALCULATION

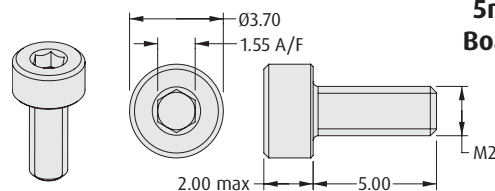
A	$B + 12.7$
B	$0.625 \times (\text{Total No. of contacts} - 2)$
C	$B + 7.8$



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

R	Tape & Reeled
P	Tape & Reel strips

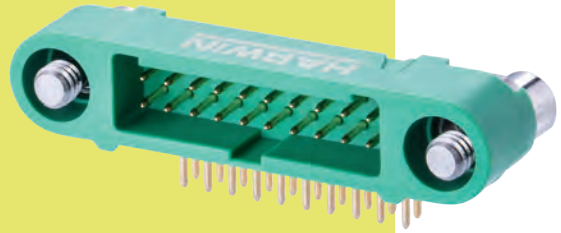
FINISH

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.

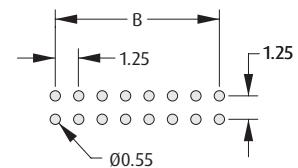
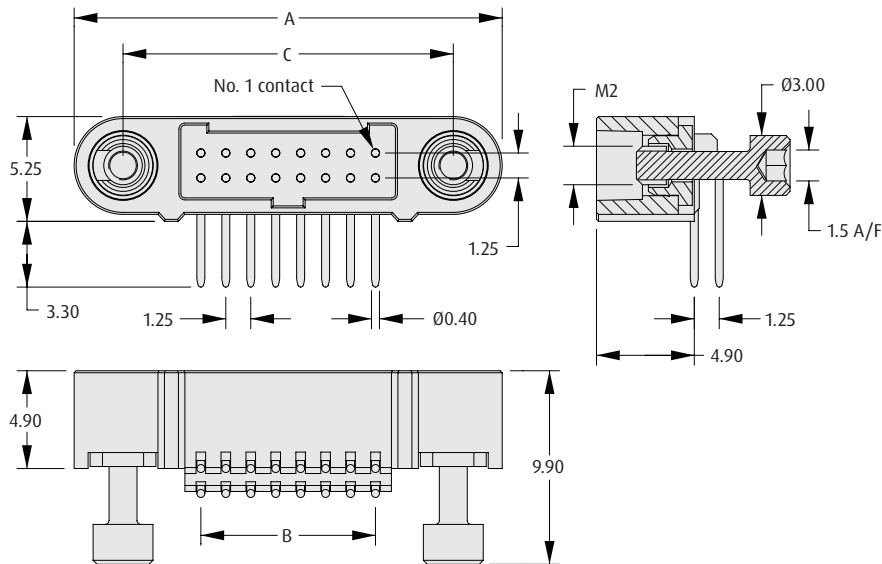


GECKO-SL

THROUGHBOARD

CALCULATION

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



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

R	Tape & Reeled
P	Tape & Reel strips

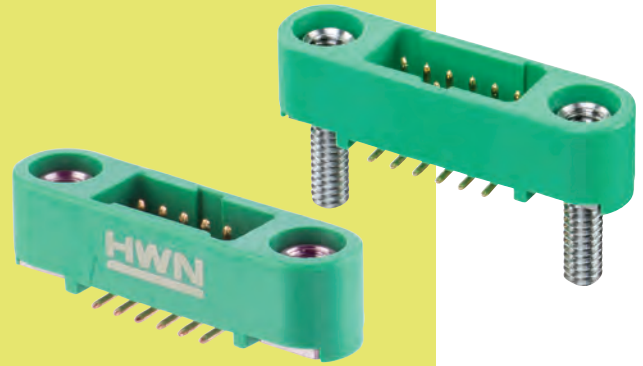
FINISH

05 Gold

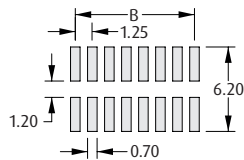
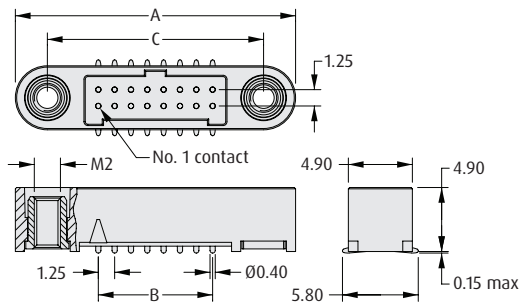
Gecko-SL Connectors

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

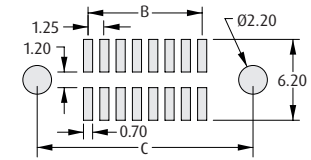
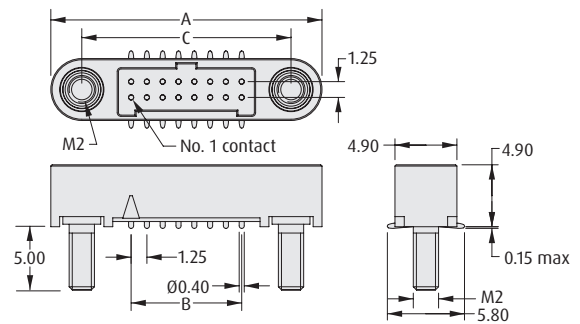


Recommended PC Board Pattern

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

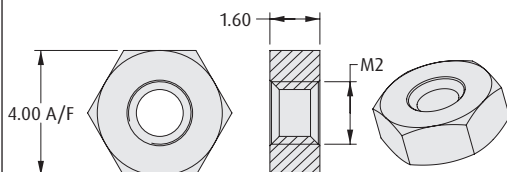
M1 Internal Thread

M2 With 5mm Board Mount Stud

REQUIRED HARDWARE

Order separately from connector

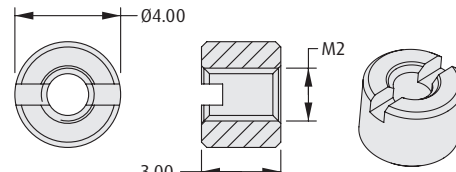
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

Gecko-SL Connectors

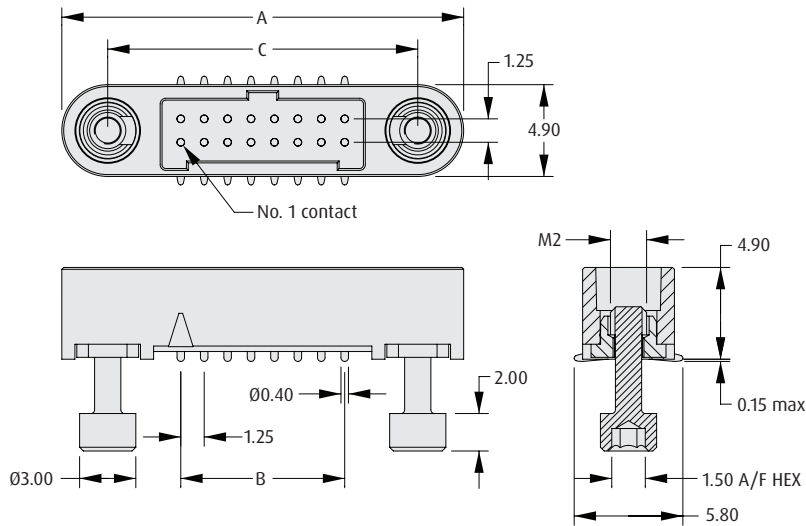
Male Vertical Surface Mount - Reverse Fix

- ❖ 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.



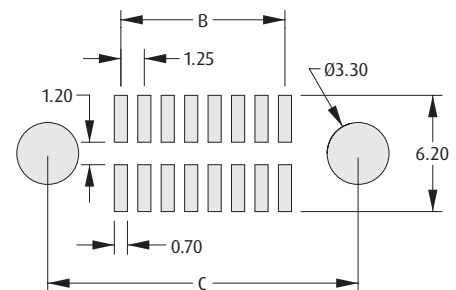
GECKO-SL

SURFACE MOUNT



CALCULATION

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



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

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

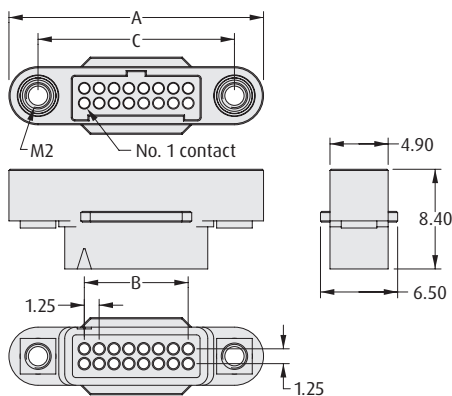
Gecko-SL Connectors

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.



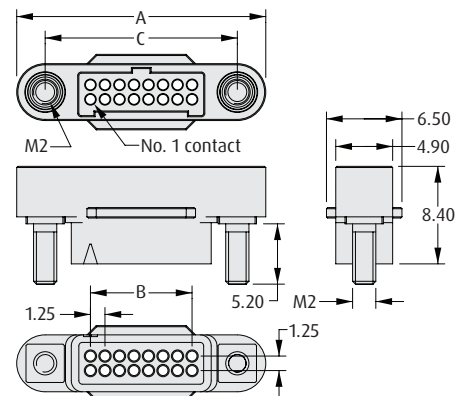
WITHOUT PANEL MOUNT



CALCULATION

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

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

M1	Internal Thread
M2	With 5.2mm Panel Mount stud
00	No fixings (use with metal hoods)

FINISH

96 Housing

TOOLS

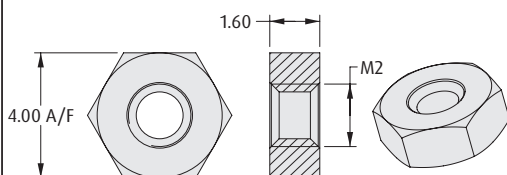
Recommended Crimp Tool - Z125-900
Positioner - Z125-901
Contact Insertion/Removal Tool - Z125-902

- Male contacts shown on a following page.
- Instruction sheets available at www.harwin.com/instructions.

REQUIRED HARDWARE

Order separately from connector

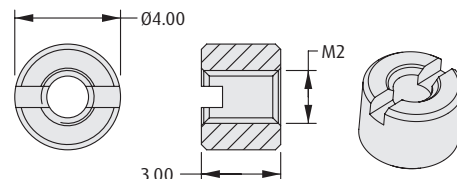
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

Gecko-SL Connectors

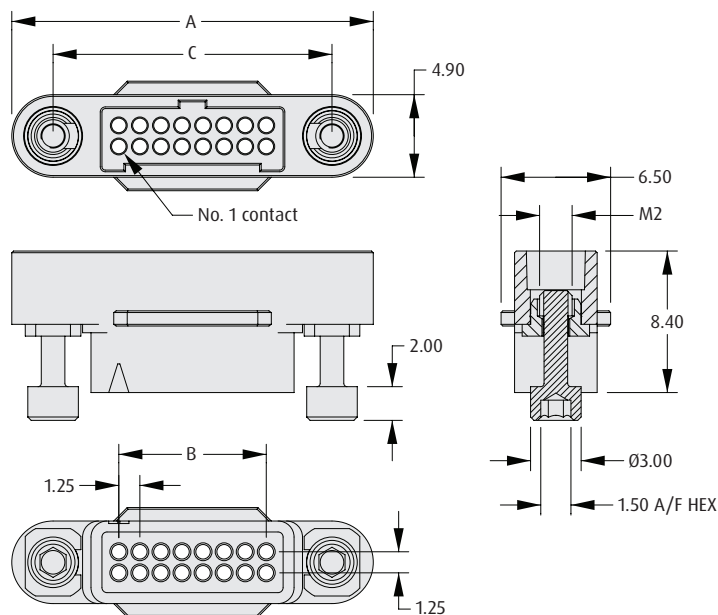
Male Crimp Housing - Reverse Fix

- ❖ 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

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

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.

HOW TO ORDER

SERIES CODE		G125 - 324		XX	96	M3	FINISH	
TYPE		324		Male Housing		96		Housing
TOTAL NO. OF CONTACTS		06, 10, 12, 16, 20, 26, 34, 50						

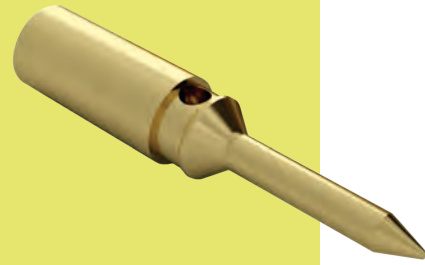
All dimensions in mm.

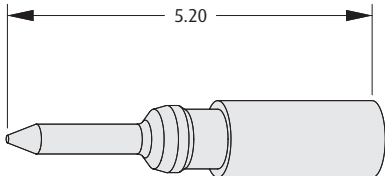
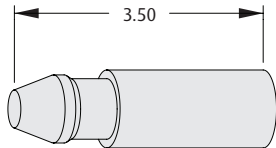
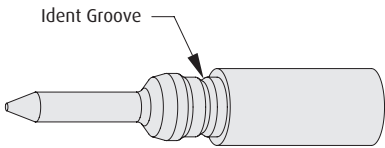
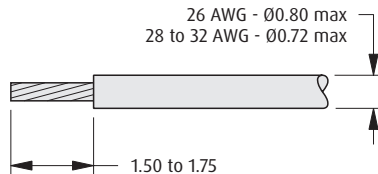
Patent Published

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS		DUMMY CONTACT											
26 AWG 													
28 - 32 AWG 		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.											
HOW TO ORDER													
G125 - XXX 00 05													
SERIES CODE													
<table><tr><th>TYPE</th><td></td></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>020</td><td>Dummy Contact (blanking plug)</td></tr></table>		TYPE		101	Male 26 AWG crimp contact	102	Male 28-32 AWG crimp contact	020	Dummy Contact (blanking plug)	FINISH <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												
020	Dummy Contact (blanking plug)												
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
	Contact Insertion/Removal Tool – Z125-902 ❖ Male crimp housings and loose contacts shown on previous pages. ❖ > Full cable assemblies shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

G125 – M WX XXXX X 94

SERIES CODE

GENDER – FIRST END

M Male

CABLE SIZE

W1	26 AWG (signal)
W2	28 AWG (signal)
W3	30 AWG (signal)

CABLE COLOR

94 White

TERMINATION – SECOND END

L	Loose cut end
F	Female
M	Male

CABLE LENGTH

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

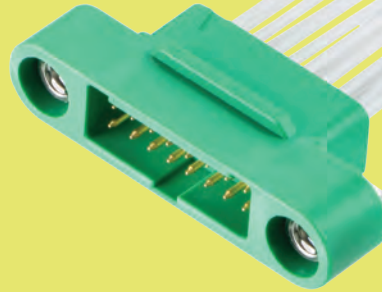
All dimensions in mm.

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

L Loose cut end

F0 Female connector
No fixings (use with Metal Hoods)

F1 Female connector
Floating Hex Socket fixings

M1 or M3 Male connector (same as First end)

CABLE LENGTH

0150 150mm

0300 300mm (double-ended)

0450 450mm (single-ended)

XXXX XXXXmm

SCREW-LOK

M1 Internal thread

M3 Floating Hex Socket
(reverse fix)

CABLE COLOR / BRAID

05 White cable

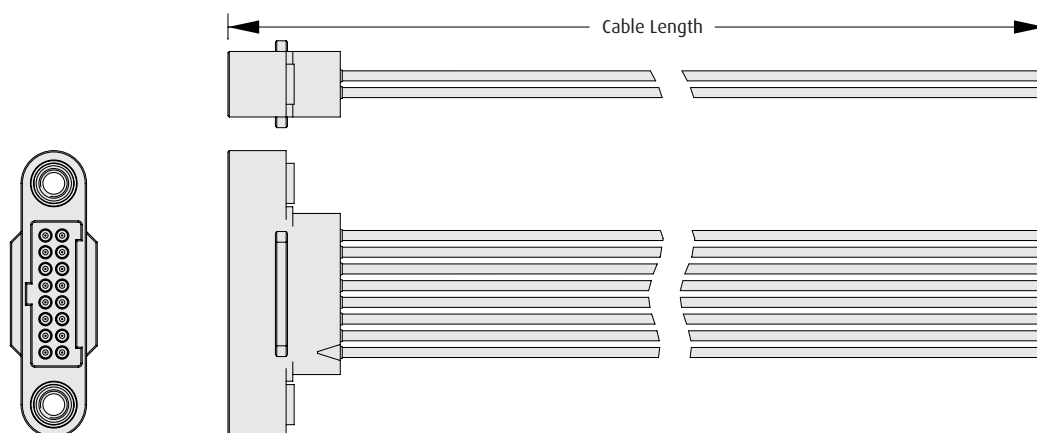
68 Multicolor cable (single-ended)

69 Shielded assembly (with metal
backshells & braid)

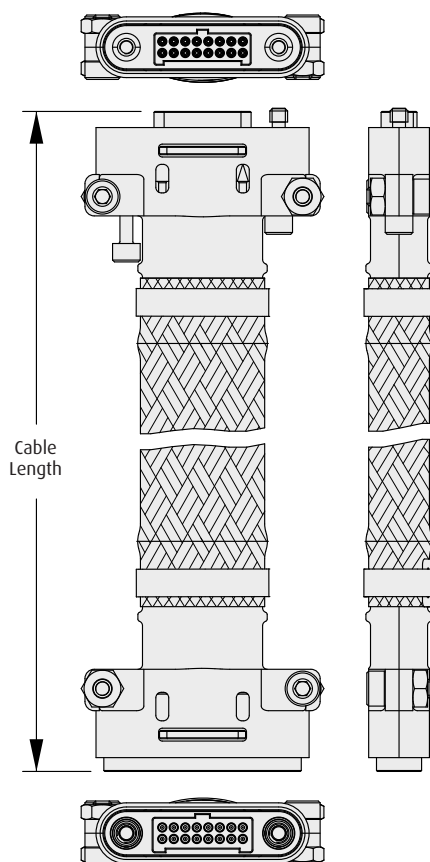
Gecko-SL Connectors

- ❖ 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.

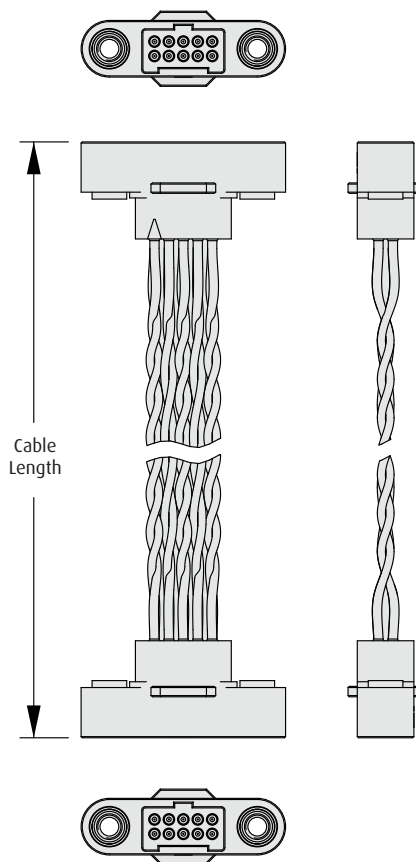
MALE SINGLE ENDED



MALE - FEMALE WITH SHIELDING



MALE - MALE WITH TWISTED PAIRS



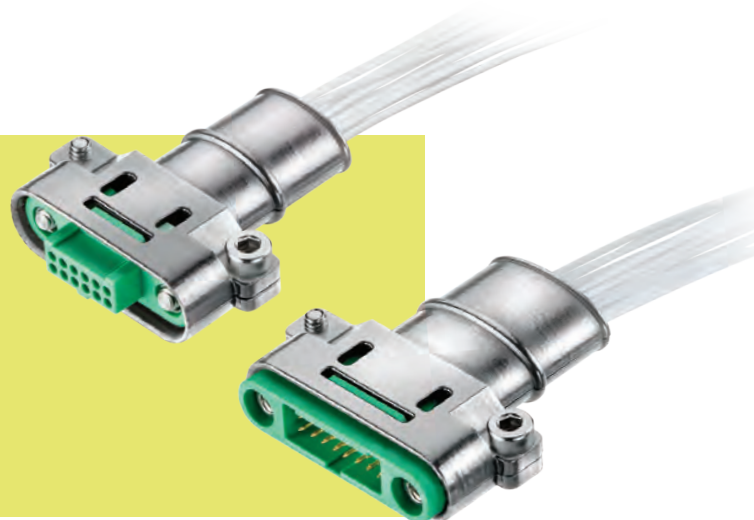
All dimensions in mm.

Patent Published

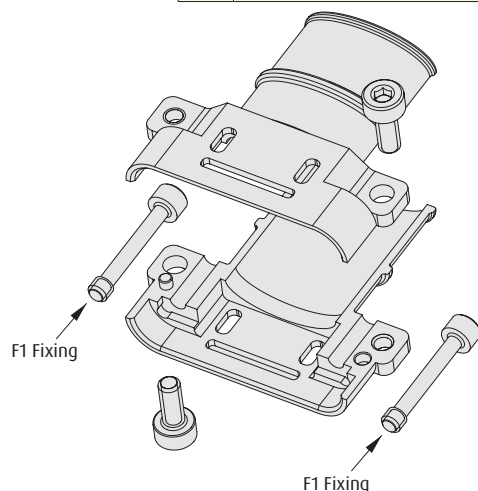
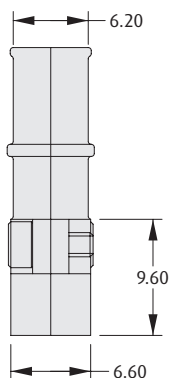
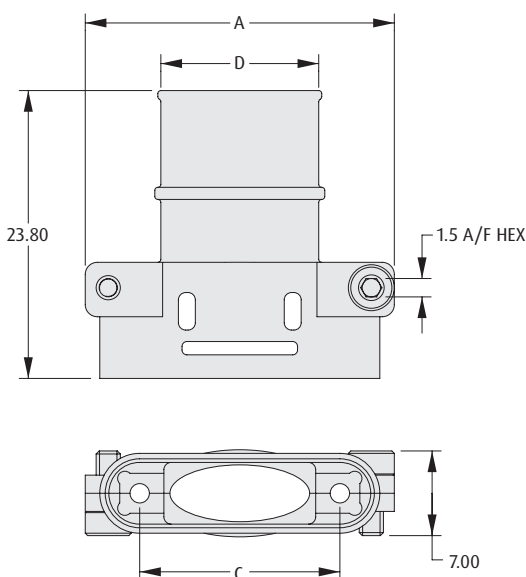
Gecko-SL Connectors

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

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

HOW TO ORDER

G125 - 964 XX XX

SERIES CODE

SCREW-LOK

00	Use with G125-324xx96M1 male housings
F1	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

M80-9470000	Length = 206.8mm
M80-9480000	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.

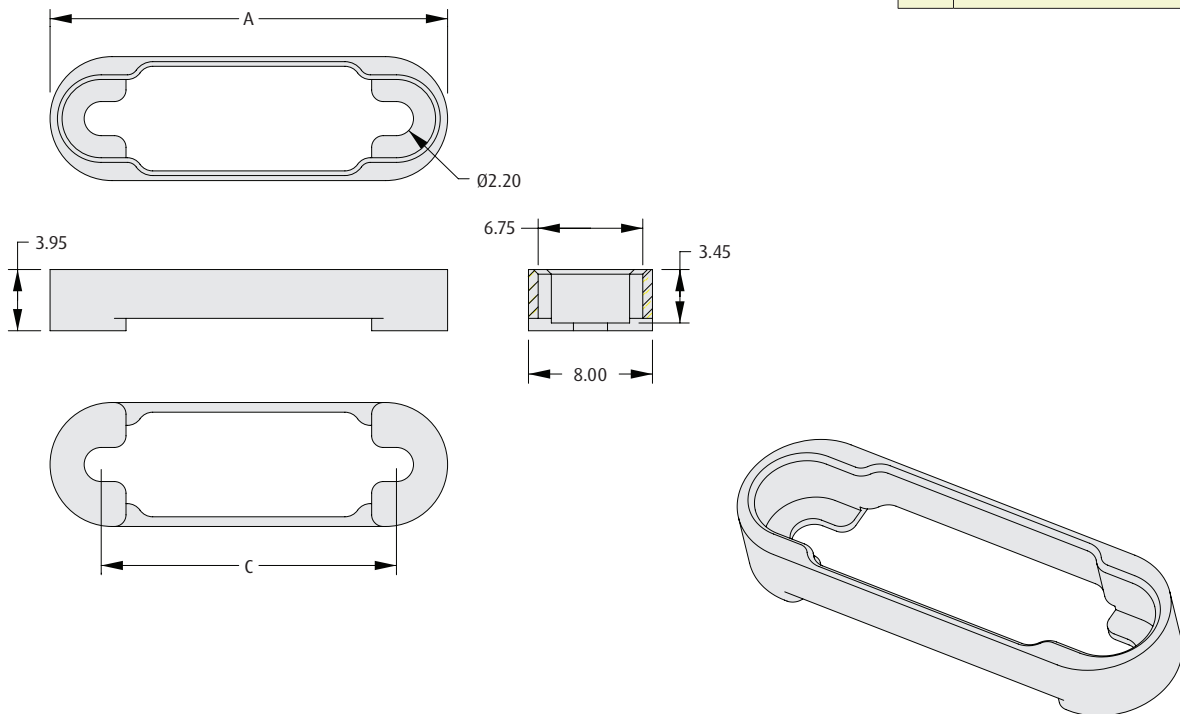


GECKO-SL

HOOD / BACKSHELL

CALCULATION

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



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, over 1.5 – 2.0µm (60 – 80µ") Nickel
Latches:	Copper Alloy

Electrical

Current	
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)

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

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

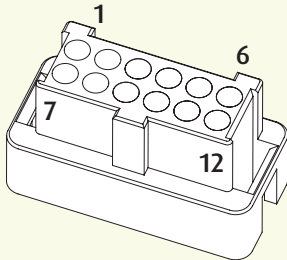
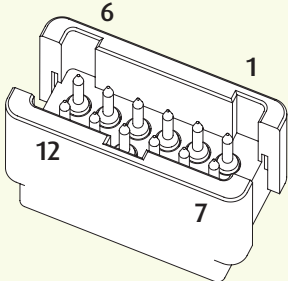
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force:	2.8N max
Withdrawal force:	0.2N min
Contact retention in housing:	6N min

Environmental

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

* Tested with latched connectors.

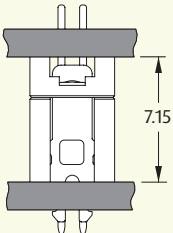
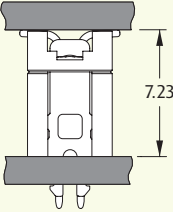
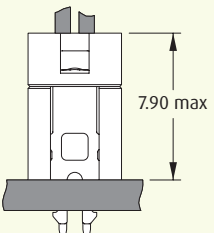
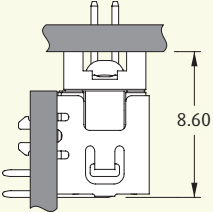
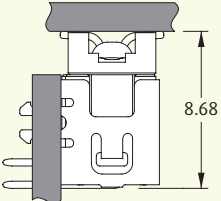
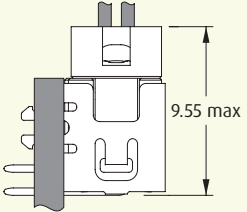
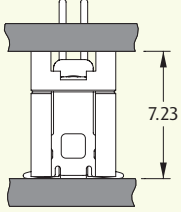
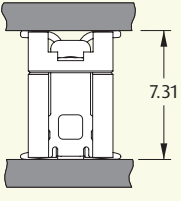
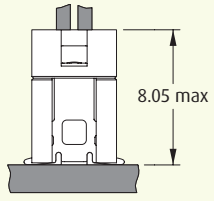
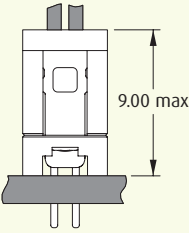
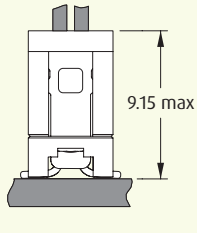
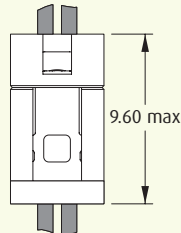
Pin Numbering

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

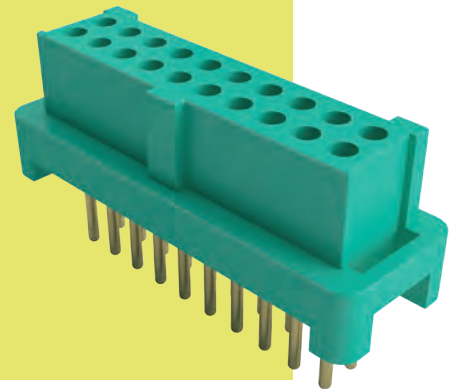
All dimensions in mm.

Patent Published

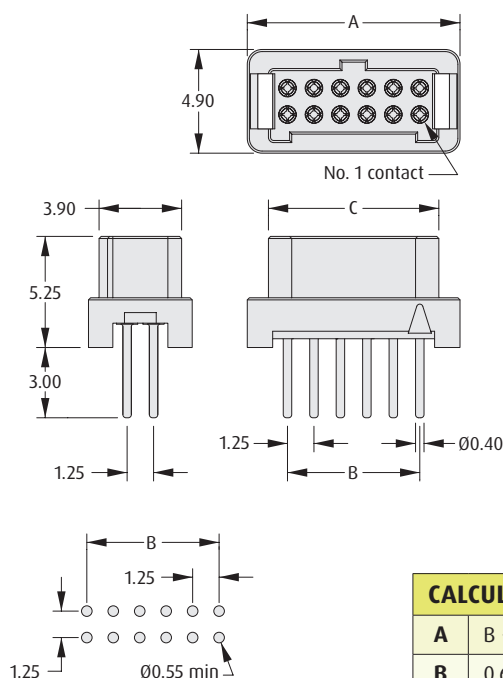
Gecko with Latches Connectors

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

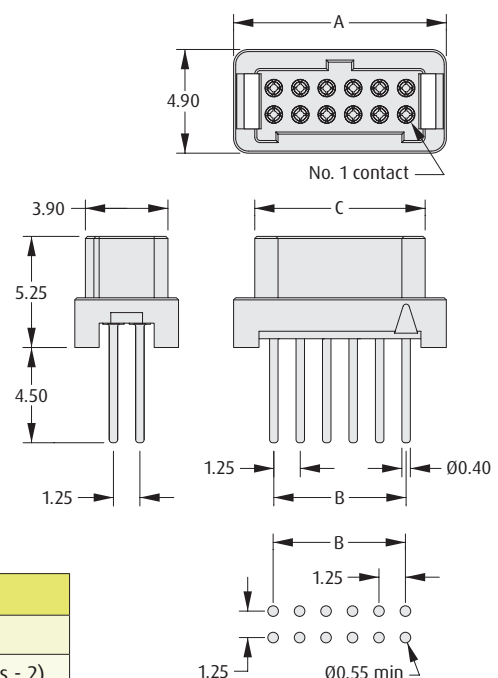


Recommended PC Board Pattern

CALCULATION

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

4.5mm THROUGHBOARD



Recommended PC Board Pattern

HOW TO ORDER

G125 - F VX XX 05 L0 X

SERIES CODE

TYPE

V1	3mm Throughboard
V2	4.5mm Throughboard

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05	Gold
-----------	------

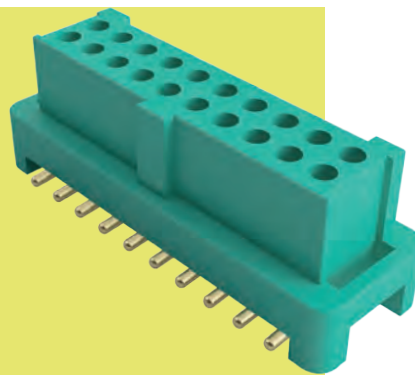
TOTAL NO. OF CONTACTS

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

Gecko with Latches Connectors

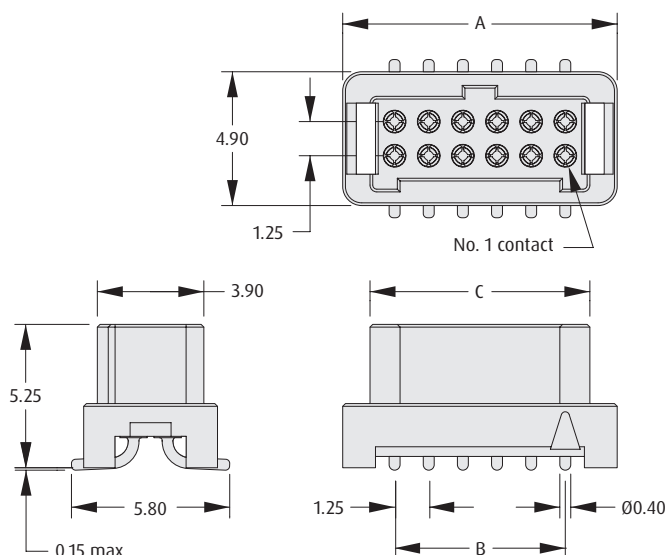
Female Surface Mount

- ❖ 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.



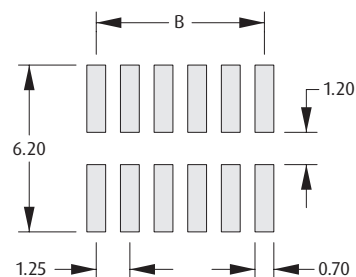
GECKO WITH LATCHES

SURFACE MOUNT



CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - F S1 XX 05 L0 X

SERIES CODE

TYPE

S1 Surface Mount

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

TOTAL NO. OF CONTACTS

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

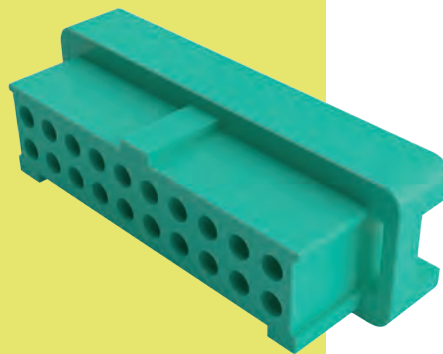
All dimensions in mm.

Patent Published

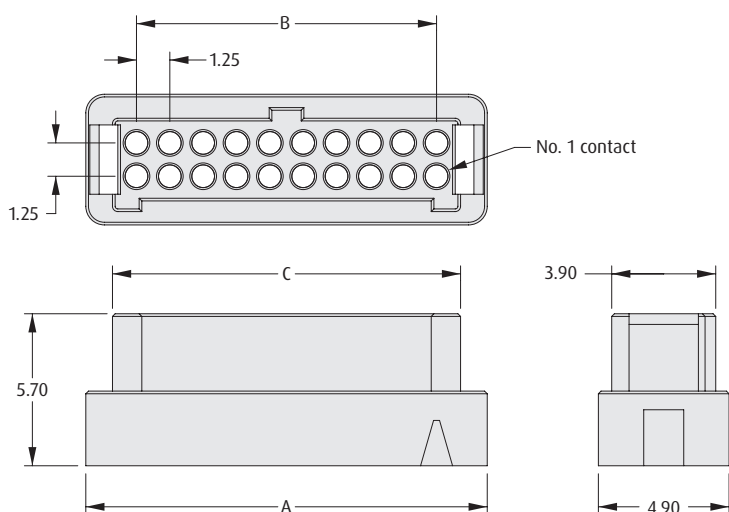
Gecko with Latches Connectors

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

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

TOOLS

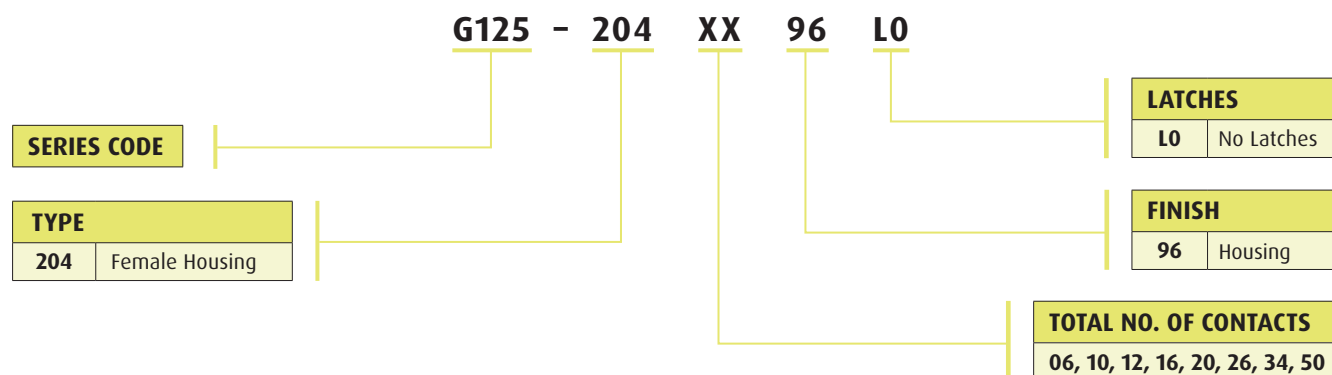
Recommended Crimp Tool - Z125-900

Positioner - Z125-901

Contact Insertion/Removal Tool - Z125-902

- ❖ Female contacts shown on following pages.
- ❖ Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER



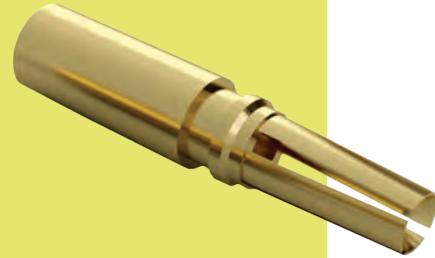
All dimensions in mm.

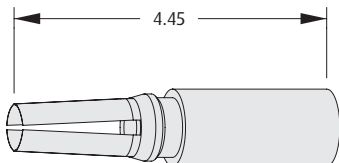
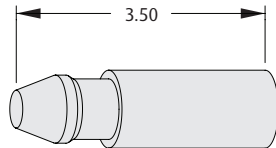
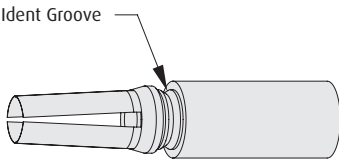
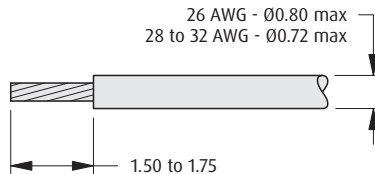
Patent Published

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS		DUMMY CONTACT											
26 AWG 													
28 – 32 AWG 		WIRE STRIPPING DETAILS											
													
TOOLS													
Recommended Crimp Tool – Z125-900 Positioner – Z125-901 Contact Insertion/Removal Tool – Z125-902		❖ Female crimp housing shown on previous page. ❖ Pre-cabled contacts shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.											
HOW TO ORDER													
SERIES CODE <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> G125 – 0XX 00 05 FINISH <table><tr><td>05</td><td>Gold</td></tr></table>				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.

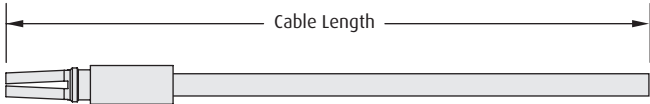
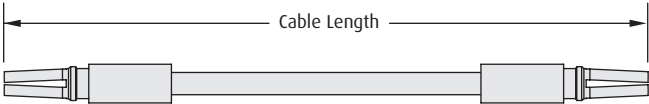
Patent Published

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																	
Contact Insertion/Removal Tool – Z125-902		❖ Female crimp housing and loose contacts shown on previous pages. ❖ Full Cable assemblies shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.															
HOW TO ORDER																	
SERIES CODE G125 GENDER - FIRST END F CABLE SIZE WX CABLE COLOR 94 TERMINATION - SECOND END XXXX CABLE LENGTH X																	
<table><tr><th colspan="2">GENDER - FIRST END</th></tr><tr><td>F</td><td>Female</td></tr></table>		GENDER - FIRST END		F	Female	<table><tr><th colspan="2">CABLE COLOR</th></tr><tr><td>94</td><td>White</td></tr></table>		CABLE COLOR		94	White						
GENDER - FIRST END																	
F	Female																
CABLE COLOR																	
94	White																
<table><tr><th colspan="2">CABLE SIZE</th></tr><tr><td>W1</td><td>26 AWG</td></tr><tr><td>W2</td><td>28 AWG</td></tr><tr><td>W3</td><td>30 AWG</td></tr></table>		CABLE SIZE		W1	26 AWG	W2	28 AWG	W3	30 AWG	<table><tr><th colspan="2">TERMINATION - SECOND END</th></tr><tr><td>L</td><td>Loose cut end</td></tr><tr><td>F</td><td>Female</td></tr></table>		TERMINATION - SECOND END		L	Loose cut end	F	Female
CABLE SIZE																	
W1	26 AWG																
W2	28 AWG																
W3	30 AWG																
TERMINATION - SECOND END																	
L	Loose cut end																
F	Female																
		<table><tr><th colspan="2">CABLE LENGTH</th></tr><tr><td>0150</td><td>150mm</td></tr><tr><td>0300</td><td>300mm (double-ended)</td></tr><tr><td>0450</td><td>450mm (single-ended)</td></tr></table>		CABLE LENGTH		0150	150mm	0300	300mm (double-ended)	0450	450mm (single-ended)						
CABLE LENGTH																	
0150	150mm																
0300	300mm (double-ended)																
0450	450mm (single-ended)																

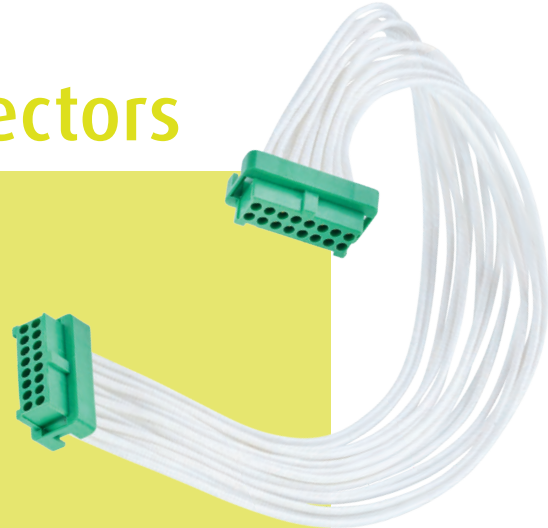
All dimensions in mm.

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

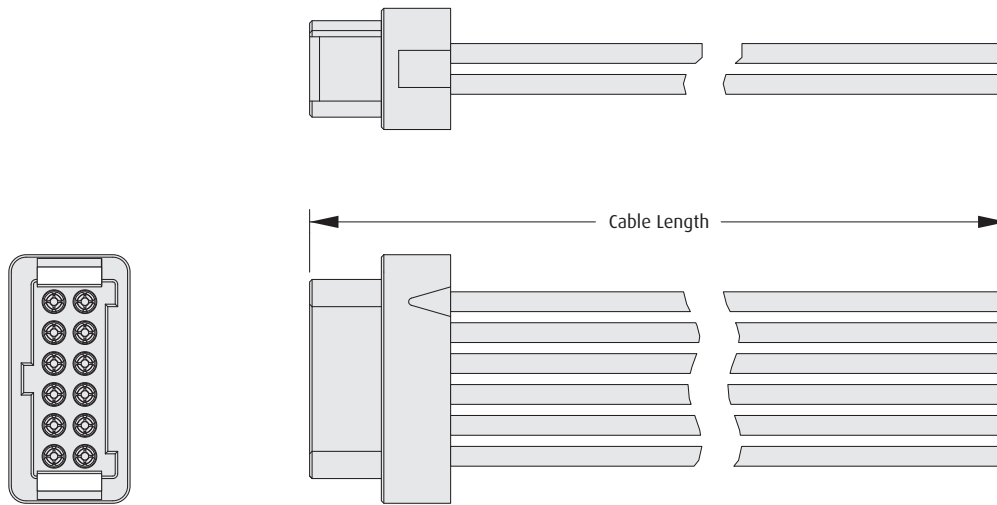
CABLE COLOR

05 White cable
68 Multicolor cable (single-ended)

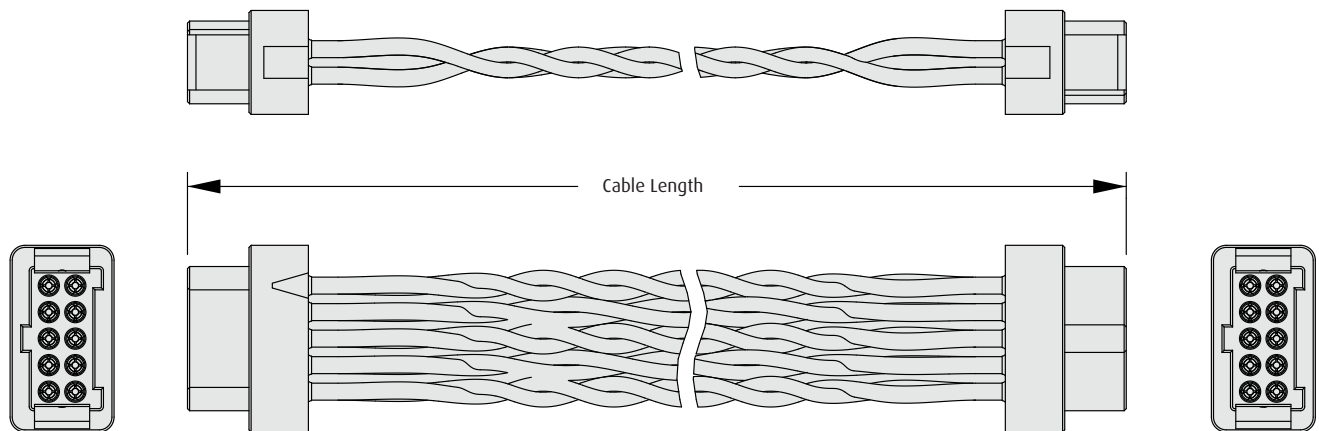
Gecko with Latches Connectors

- ❖ 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



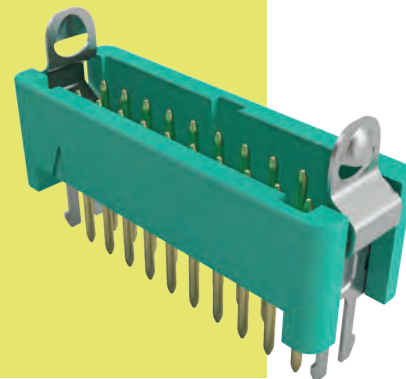
All dimensions in mm.

Patent Published

Gecko with Latches Connectors

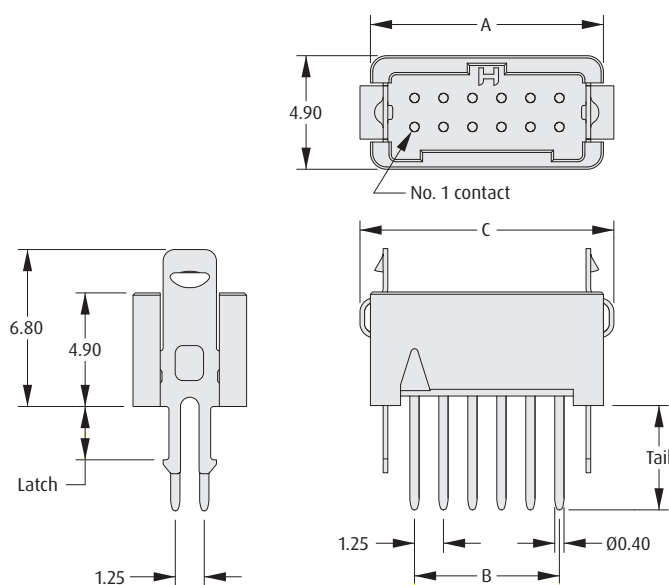
Male Vertical Throughboard

- Secure fixing to the PCB via retention bars 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.



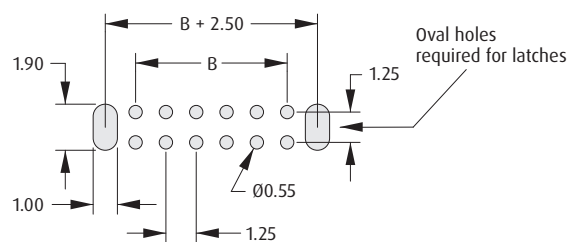
GECKO WITH LATCHES

THROUGHBOARD



CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - M VX XX 05 LX X

SERIES CODE

TYPE

V1	3mm Throughboard Tail
V2	4.5mm Throughboard Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

LATCH

L0	No Latch
L1	Latch for 1.6mm PCB (use with V1)
L2	Latch for 2.4mm PCB (use with V2)

FINISH

05 Gold

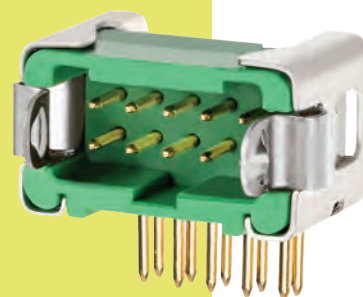
All dimensions in mm.

Patent Published

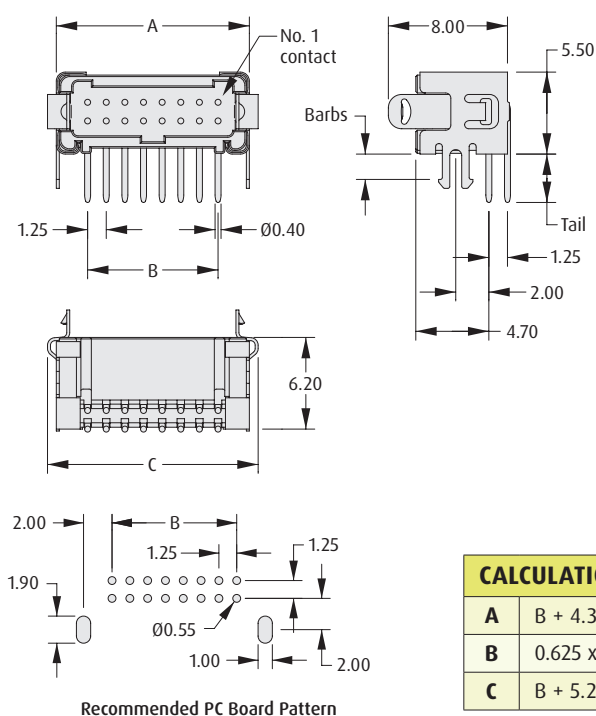
Gecko with Latches Connectors

Male Horizontal Throughboard - Latched

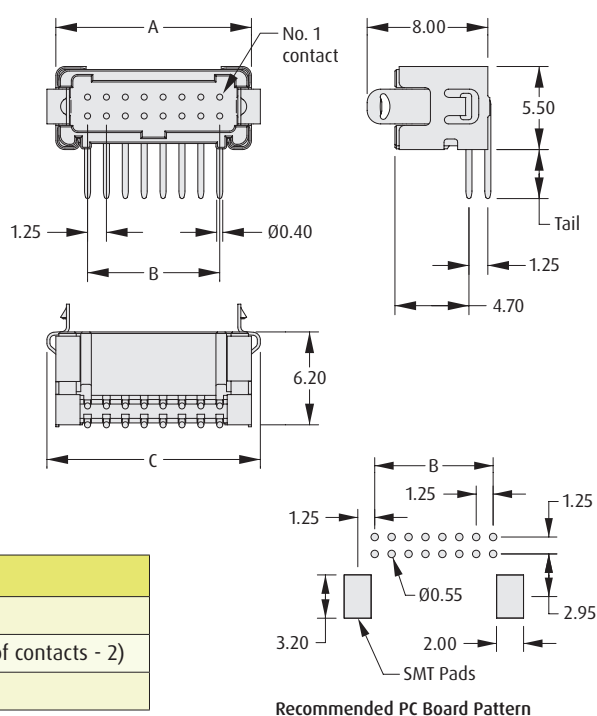
- ❖ Secure fixing to the PCB via retention barbs for through hole.
- ❖ Surface mount option for automated assembly.
- ❖ Easy-to-release latches – tooling available for additional assistance with releasing latches – see part numbers **Z125-926xx00**.
- ❖ 2A current capacity, resists high vibration and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



THROUGHBOARD LATCH



SURFACE MOUNT LATCH



CALCULATION

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

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

LATCH

L1	Latch for 1.6mm PCB (use with H1)
L2	Latch for 2.4mm PCB (use with H2)
L3	Surface Mount Latch

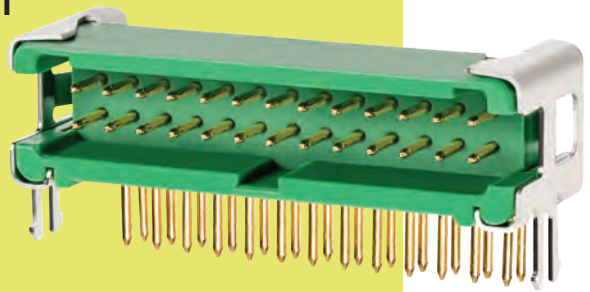
FINISH

05	Gold
-----------	------

Gecko with Latches Connectors

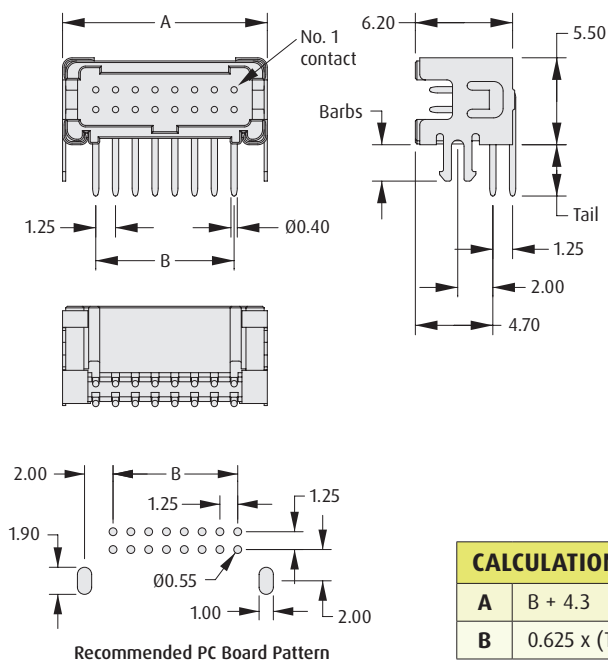
Male Horizontal Throughboard - Without Latch

- ❖ 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.

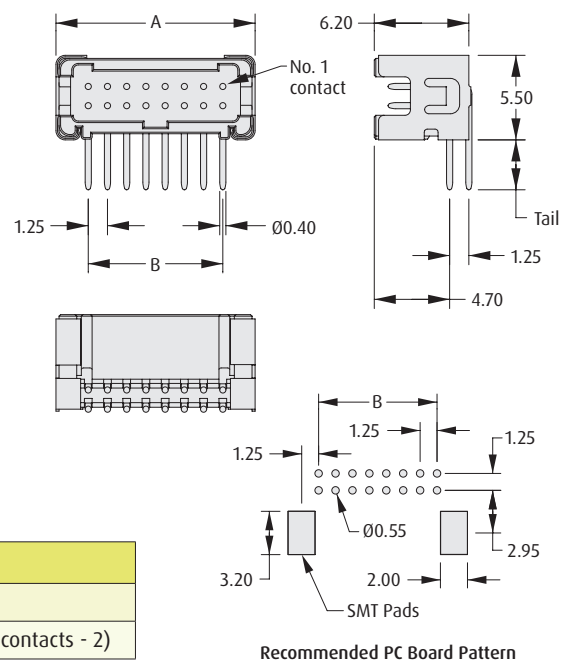


GECKO WITH LATCHES

THROUGHBOARD FIXING



SURFACE MOUNT FIXING



CALCULATION

A	B + 4.3
B	0.625 x (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

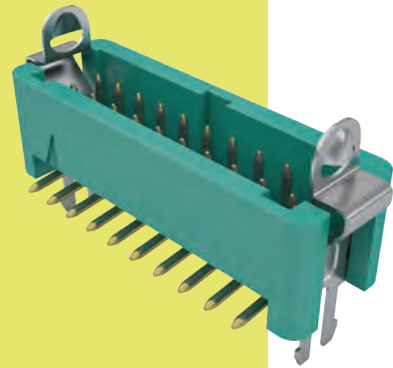
FINISH

05	Gold
----	------

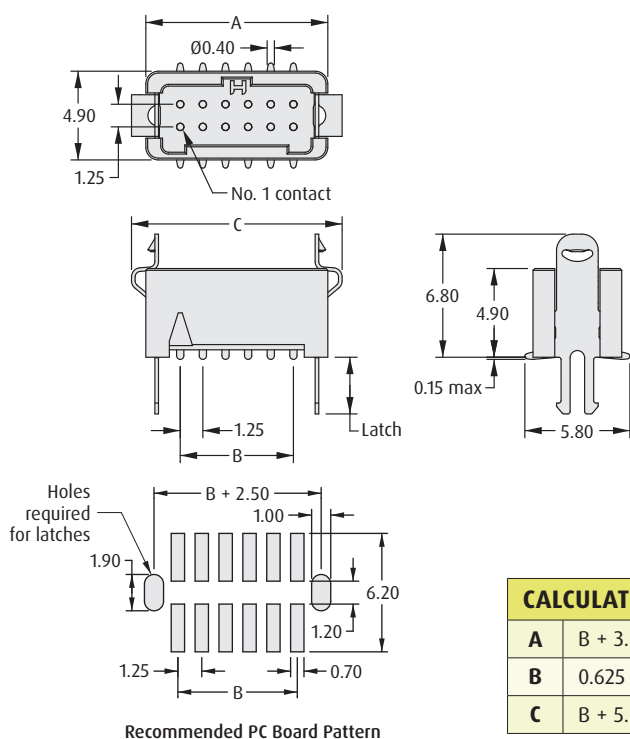
Gecko with Latches Connectors

Male Vertical Surface Mount

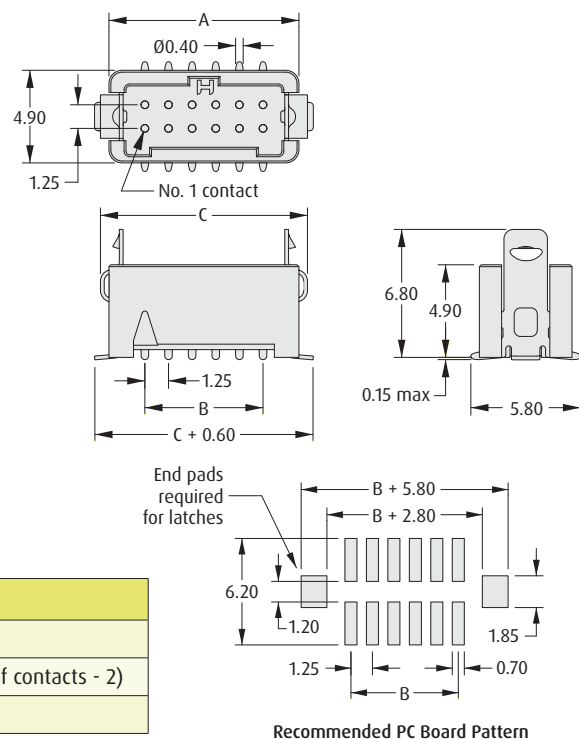
- ❖ Secure fixing to the PCB via hold-down tabs (SMT).
- ❖ Easy-to-release latches require no tooling.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



THROUGHBOARD LATCH



SURFACE MOUNT LATCH



CALCULATION

A	$B + 3.8$
B	$0.625 \times (\text{Total No. of contacts} - 2)$
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

R	Tape & Reeled
P	Tape & Reel strips

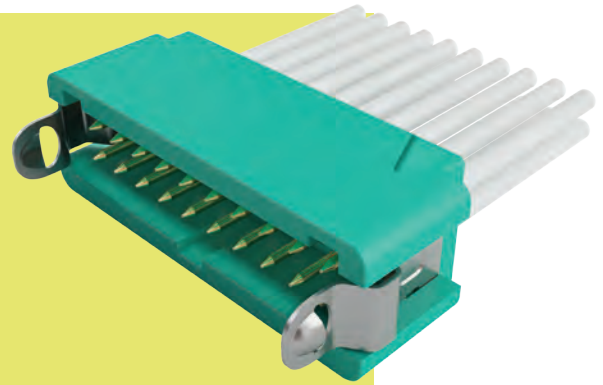
LATCH

L0	No Latch
L1	Latch for 1.6mm PCB
L2	Latch for 2.4mm PCB
L3	Surface Mount Latch

Gecko with Latches Connectors

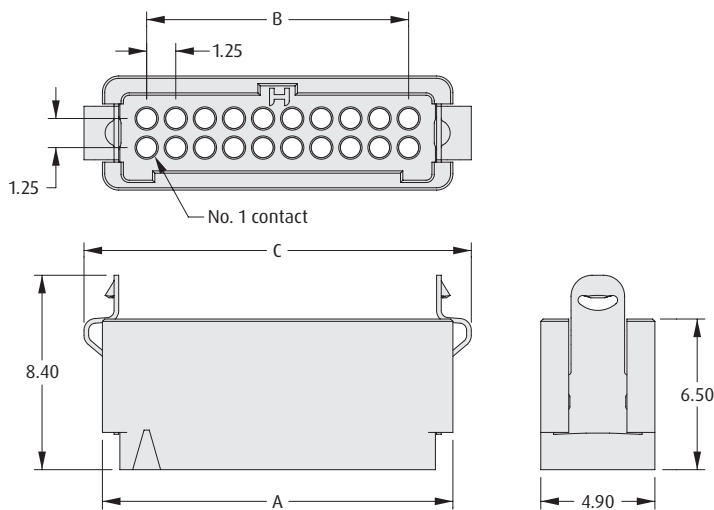
Male Crimp Housing

- ❖ 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

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

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.

HOW TO ORDER

G125 - 304 XX 96 LX

SERIES CODE

TYPE

304 Male Housing

LATCH

L0	No Latches
L4	Latches (Male Only)

FINISH

96 Housing

TOTAL NO. OF CONTACTS

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

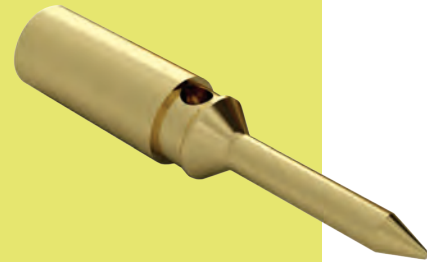
All dimensions in mm.

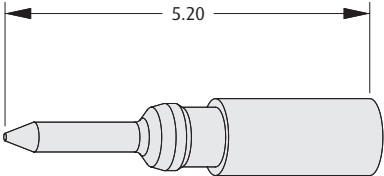
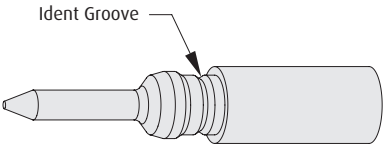
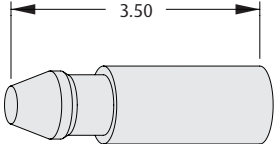
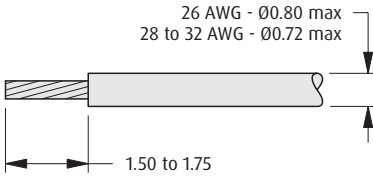
Patent Published

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS	DUMMY CONTACT										
26 AWG  28 - 32 AWG 	 WIRE STRIPPING DETAILS 										
TOOLS											
Recommended Crimp Tool - Z125-900 Positioner - Z125-901 Contact Insertion/Removal Tool - Z125-902	❖ Male crimp housing shown on previous page. ❖ Pre-cable contacts shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.										
HOW TO ORDER											
G125 - XXX 00 05 SERIES CODE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #f2f2f2;">TYPE</th> <th></th> </tr> </thead> <tbody> <tr> <td style="background-color: #f2f2f2;">101</td> <td>Male 26 AWG crimp contact</td> </tr> <tr> <td style="background-color: #f2f2f2;">102</td> <td>Male 28-32 AWG crimp contact</td> </tr> <tr> <td style="background-color: #f2f2f2;">020</td> <td>Dummy Contact (blanking plug)</td> </tr> </tbody> </table> FINISH <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="background-color: #f2f2f2;">05</td> <td>Gold</td> </tr> </tbody> </table>		TYPE		101	Male 26 AWG crimp contact	102	Male 28-32 AWG crimp contact	020	Dummy Contact (blanking plug)	05	Gold
TYPE											
101	Male 26 AWG crimp contact										
102	Male 28-32 AWG crimp contact										
020	Dummy Contact (blanking plug)										
05	Gold										

All dimensions in mm.

Patent Published

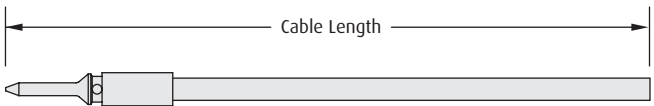
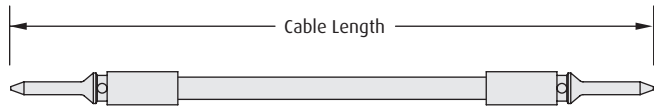
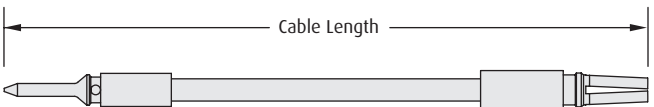
Gecko with Latches Connectors

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
	Contact Insertion/Removal Tool – Z125-902 ❖ Male crimp housing and loose contacts shown on previous pages. ❖ Full Cable assemblies shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

G125 – M WX XXXX X 94

SERIES CODE

GENDER – FIRST END

M Male

CABLE SIZE

W1	26 AWG
W2	28 AWG
W3	30 AWG

CABLE COLOR

94 White

TERMINATION – SECOND END

L	Loose cut end
F	Female
M	Male

CABLE LENGTH

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

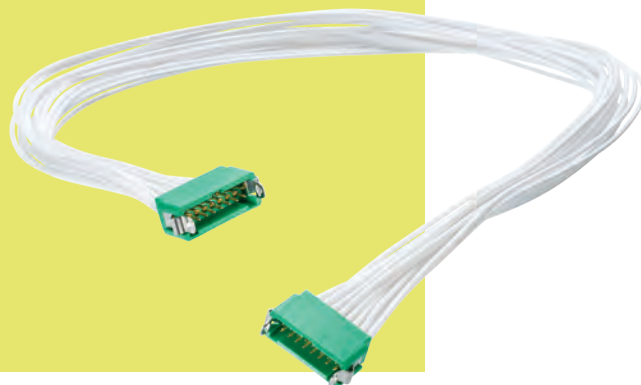
All dimensions in mm.

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)

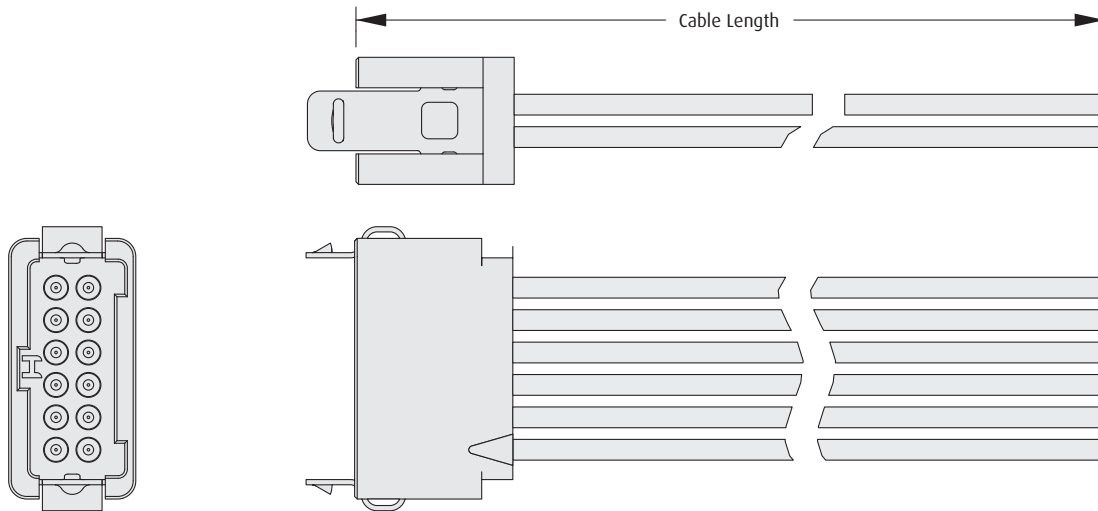
CABLE COLOR

05 White cable
68 Multicolor cable (single-ended)

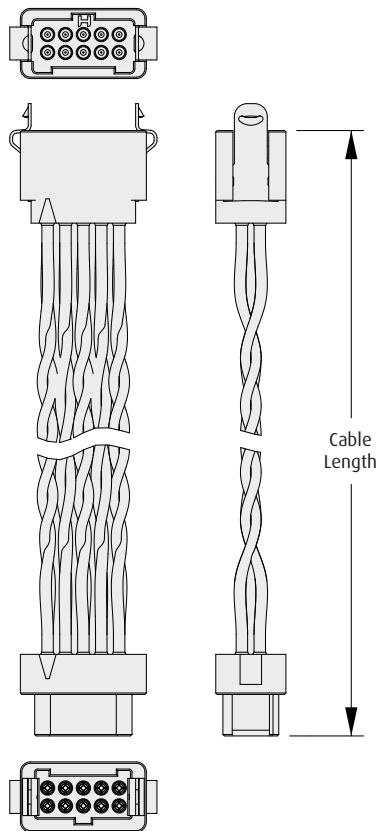
Gecko with Latches Connectors

- ❖ 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 connector.

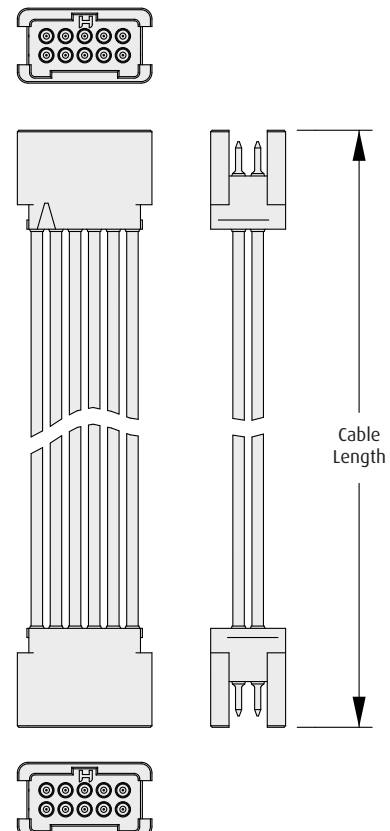
MALE SINGLE ENDED



MALE - FEMALE WITH TWISTED PAIRS



MALE - MALE



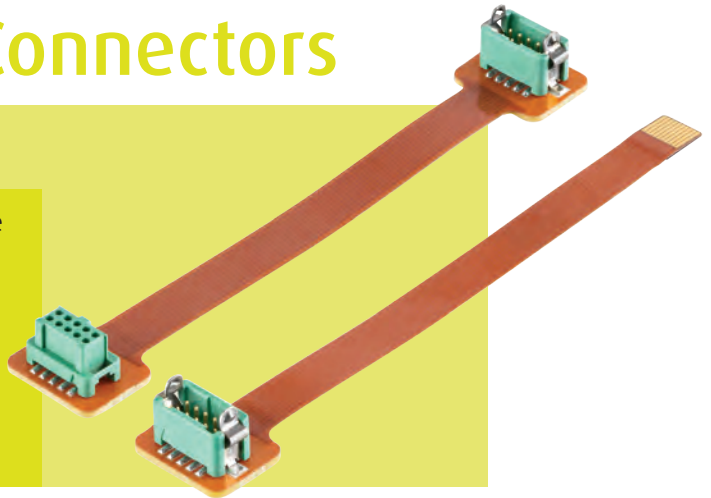
All dimensions in mm.

Patent Published

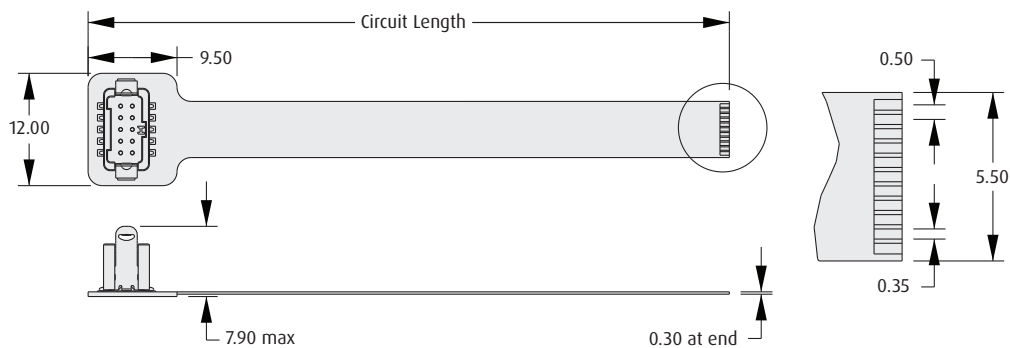
Gecko with Latches Connectors

Flexible Circuit Assemblies

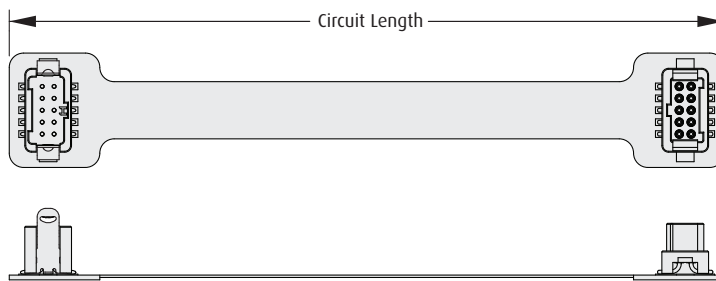
- ❖ Surface mount connectors with latches assembled to flexible printed circuit for an alternative to cable connection.
- ❖ Improved bend radius and lower mated height than equivalent cable assemblies.
- ❖ The free end of the single-ended assembly is compatible with 0.5mm pitch FPC connectors.
- ❖ Contact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

L	Free End (Single Ended)
FS1	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.
- ❖ A Gecko Crimping Instruction video is available at www.harwin.com/harwintv.

HAND CRIMP TOOL	POSITIONER												
❖ Precision tool with ratchet mechanism and 8-indent form. ❖ Must be used with positioner. ❖ Instruction sheet available.  <table border="1" data-bbox="485 1138 810 1253"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td>Signal crimps</td><td>Z125-900</td></tr> <tr> <td>Power crimps</td><td>Z125-903</td></tr> </tbody> </table>	ORDER CODE		Signal crimps	Z125-900	Power crimps	Z125-903	❖ Must be used with hand crimp tool.  <table border="1" data-bbox="1183 1138 1508 1253"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td>Signal crimps</td><td>Z125-901</td></tr> <tr> <td>Power crimps</td><td>Z125-904</td></tr> </tbody> </table>	ORDER CODE		Signal crimps	Z125-901	Power crimps	Z125-904
ORDER CODE													
Signal crimps	Z125-900												
Power crimps	Z125-903												
ORDER CODE													
Signal crimps	Z125-901												
Power crimps	Z125-904												
INSERTION/REMOVAL TOOL	INSERTION/REMOVAL TOOL												
❖ For inserting and removing crimped signal contacts into the rear of housings. ❖ Instruction sheet available.  <table border="1" data-bbox="631 1810 810 1887"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td colspan="2">Z125-902</td></tr> </tbody> </table>	ORDER CODE		Z125-902		❖ For inserting and removing crimped power contacts into the rear of housings. ❖ Instruction sheet available.  <table border="1" data-bbox="1330 1810 1508 1887"> <thead> <tr> <th colspan="2">ORDER CODE</th></tr> </thead> <tbody> <tr> <td colspan="2">Z125-905</td></tr> </tbody> </table>	ORDER CODE		Z125-905					
ORDER CODE													
Z125-902													
ORDER CODE													
Z125-905													

All dimensions in mm.

Patent Published

Gecko Connectors Tooling

❖ Instruction sheets can be accessed at www.harwin.com/instructions.

GECKO

HEX DRIVE BIT ❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings. ❖ For use with torque tooling or similar equipment.  ORDER CODE Z9950-00	BALL HEX DRIVER ❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings. ❖ Ball-shaped end can be used at a wide range of angles.  ORDER CODE Z9952-00
SCREWDRIVER ❖ For use with Gecko Screw-Lok board mount nuts. ❖ Board mount nuts to be tightened to a torque of $21 \pm 2\text{cmN}$.  ORDER CODE Z80-298	DELATCH TOOL ❖ For assisting with unmating latched connectors.  ORDER CODE Z125-926xx00 Replace xx with No. of Contacts: 06, 10, 12, 16, 20, 26, 34 or 50

All dimensions in mm.

Patent Published