

# HARSH ENVIRONMENTS RATCHET COUPLING M SERIES CONNECTOR



## Rapid ratchet coupling mechanism

The M Series connector offers a new innovative design for motorsport applications and military systems. Made of high-strength aluminum, this connector is one of the lightest and most compact of the LEMO product line. A one-grip ratchet screw system enables quick and secure coupling of the connectors. The optional arctic grip makes it easy to manipulate the connector while wearing gloves or when the connector is located in a difficult to access area.

### Features

- Ratchet-coupling mechanism
- Quick mating: 1/2 turn to seat
- Compact design for space savings
- Lightweight
- Oil and fuel resistant
- High vibration and shock resistance
- 360° shielding for full EMC protection
- Sealed to IP68 when mated
- Color coded keying options
- Requires a greater force to unmate than to mate
- Scoop proof
- Reverse sex configurations available



## Technical Characteristics

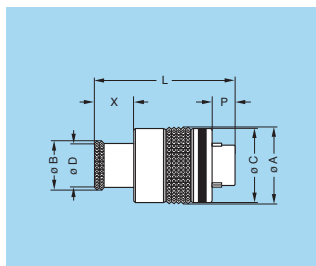
| Characteristics                  | Value          | Standard             |
|----------------------------------|----------------|----------------------|
| Endurance                        | 3000 cycles    | IEC 60512-5 test 9a  |
| Operating temperature            | -50°C/+200°C   | –                    |
| Resistance to vibration          | 10-2000Hz, 15g | IEC 60512-4 test 6d  |
| Shock resistance                 | 100g, 6ms      | IEC 60512-6 test 6c  |
| Salt spray corrosion test        | 144h           | IEC 60512-6 test 11f |
| Protection index (at 2m, 15 hr.) | IP68           | IEC 60529            |
| Gunfire vibration                | satisfied      | MIL STD-810-E        |

## Material and treatment

| Characteristics          | Value                | Surface treatment       |
|--------------------------|----------------------|-------------------------|
| Outershell, coupling nut | Aluminum (AA 6262A)  | Ni (5 µm) <sup>1)</sup> |
| Earthing crown           | Bronze (UNS C 54400) | Au (1.5 µm)             |
| Ratchet                  | PEEK graphite        | –                       |
| Insulator                | PEEK                 | –                       |
| Contacts                 | Brass/Bronze         | Ni (3 µm) + Au (1 µm)   |
| Gaskets                  | FPM + FVMQ           | –                       |
| Sealing resin            | Epoxy                | –                       |

Note: 1) Anthracite color.

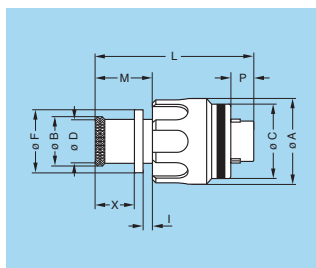
## Models



### FM• Straight plug, key (N) or keys (P and U) with knurled grip

| Reference |        | Dimensions (mm) |      |      |      |      |     |     | Weight max (g) |
|-----------|--------|-----------------|------|------|------|------|-----|-----|----------------|
| Model     | Series | A               | B    | C    | D    | L    | P   | X   |                |
| FM•       | 0M     | 13.1            | 8.8  | 12.7 | 8.0  | 24.1 | 4.0 | 6.7 | 4.3            |
| FM•       | 1M     | 14.6            | 10.5 | 14.2 | 9.7  | 24.1 | 4.0 | 6.7 | 5.6            |
| FM•       | 2M     | 17.6            | 14.0 | 17.2 | 13.0 | 24.5 | 4.0 | 7.1 | 8.5            |

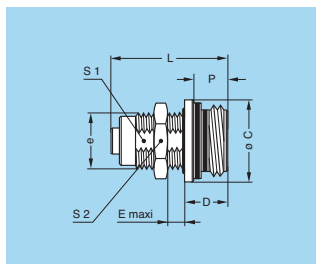
Part number example: FMN.1M.305.XLC



### FG• Straight plug, key (N) or keys (P and U) with arctic grip and optional mold stop

| Reference |        | Dimensions (mm) |      |      |      |      |     |      |      |     |     | Weight max (g) |
|-----------|--------|-----------------|------|------|------|------|-----|------|------|-----|-----|----------------|
| Model     | Series | A               | B    | C    | D    | F    | I   | L    | M    | P   | X   |                |
| FG•       | 0M     | 14.4            | 8.8  | 12.7 | 8.0  | 10.7 | 1.5 | 27.1 | 9.7  | 4.0 | 6.7 | 4.4            |
| FG•       | 1M     | 15.9            | 10.5 | 14.2 | 9.7  | 12.4 | 1.5 | 27.1 | 9.7  | 4.0 | 6.7 | 5.8            |
| FG•       | 2M     | 18.9            | 14.0 | 17.2 | 13.0 | 15.5 | 1.5 | 27.5 | 10.1 | 4.0 | 7.1 | 7.4            |

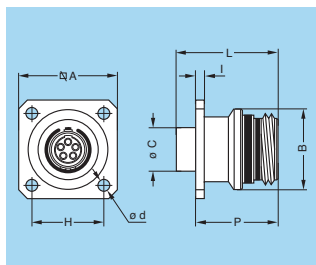
Part number example: FGN.1M.305.XLCT



### EG• Fixed receptacle, nut fixing, key (N) or keys (P and U)

| Reference |        | Dimensions (mm) |     |         |     |      |     |      |      | Weight max (g) |
|-----------|--------|-----------------|-----|---------|-----|------|-----|------|------|----------------|
| Model     | Series | C               | D   | e       | E   | L    | P   | S1   | S2   |                |
| EG•       | 0M     | 12.7            | 6.8 | M9x0.6  | 5.0 | 18.1 | 5.3 | 8.2  | 11.0 | 2.7            |
| EG•       | 1M     | 14.2            | 6.8 | M11x1.0 | 4.5 | 18.1 | 5.3 | 9.5  | 13.0 | 3.3            |
| EG•       | 2M     | 17.2            | 6.8 | M14x1.0 | 4.5 | 18.1 | 5.3 | 12.5 | 17.0 | 4.5            |

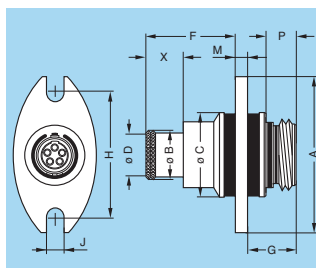
Part number example: EGN.1M.305.XLM



### ED• Fixed receptacle with square flange, key (N) or keys (P and U)

| Reference |        | Dimensions (mm) |      |     |     |      |     |      |      | Weight max (g) |
|-----------|--------|-----------------|------|-----|-----|------|-----|------|------|----------------|
| Model     | Series | A               | B    | C   | d   | H    | I   | L    | P    |                |
| ED•       | 0M     | 16.0            | 12.7 | 4.7 | 2.7 | 11.0 | 1.5 | 18.5 | 14.3 | 3.7            |
| ED•       | 1M     | 18.4            | 14.2 | 6.0 | 3.3 | 12.9 | 1.5 | 18.5 | 14.3 | 4.8            |
| ED•       | 2M     | 20.6            | 17.2 | 8.8 | 3.3 | 15.1 | 1.5 | 18.5 | 14.3 | 7.7            |

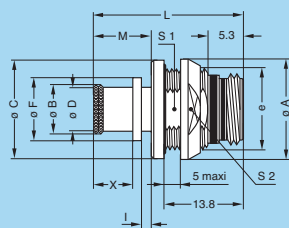
Part number example: EDN.1M.305.XLM



### PB• Fixed receptacle with antivibration flange, key (N) or keys (P and U), 2 holes fixing

| Reference |        | Dimensions (mm) |      |      |      |      |     |      |     |     |     | Weight max (g) |
|-----------|--------|-----------------|------|------|------|------|-----|------|-----|-----|-----|----------------|
| Model     | Series | A               | B    | C    | D    | F    | G   | H    | J   | M   | P   | X              |
| PB•       | 0M     | 27.0            | 8.8  | 14.5 | 8.0  | 15.3 | 8.3 | 21.4 | 3.3 | 2.0 | 5.3 | 6.7            |
| PB•       | 1M     | 29.0            | 10.5 | 16.5 | 9.7  | 15.3 | 8.3 | 23.4 | 3.3 | 2.0 | 5.3 | 6.7            |
| PB•       | 2M     | 32.0            | 14.0 | 19.5 | 13.0 | 15.7 | 8.3 | 26.4 | 3.3 | 2.0 | 5.3 | 7.1            |

Part number example: PBN.1M.305.XLM

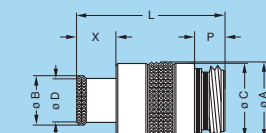


## PE• Fixed receptacle, nut fixing, key (N) or keys (P and U) and mold stop (back panel mounting)

| Reference |        | Dimensions (mm) |      |      |      |          |      |      |      |      |    |     |  |
|-----------|--------|-----------------|------|------|------|----------|------|------|------|------|----|-----|--|
| Model     | Series | A               | B    | C    | D    | e        | F    | L    | M    | S1   | S2 | X   |  |
| PE•       | 0M     | 17              | 8.8  | 16.8 | 8.0  | M13x0.75 | 10.7 | 25.6 | 9.7  | 11.5 | 14 | 6.7 |  |
| PE•       | 1M     | 18              | 10.5 | 17.8 | 9.7  | M14x1.00 | 12.4 | 25.6 | 9.7  | 12.5 | 16 | 6.7 |  |
| PE•       | 2M     | 21              | 14.0 | 20.8 | 13.0 | M17x1.00 | 15.5 | 26.0 | 10.1 | 15.5 | 18 | 7.1 |  |

Note: the dimension «I» is the same as the FG• models.  
This model is only available with mold stop.

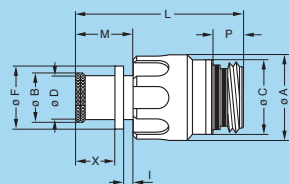
Part number example: PEN.1M.305.XLMT



## PM• Free receptacle, key (N) or keys (P and U) with knurled grip

| Reference |        | Dimensions (mm) |      |      |      |      |     |     |
|-----------|--------|-----------------|------|------|------|------|-----|-----|
| Model     | Series | A               | B    | C    | D    | L    | P   | X   |
| PM•       | 0M     | 13.1            | 8.8  | 12.7 | 8.0  | 25.6 | 5.3 | 6.7 |
| PM•       | 1M     | 14.6            | 10.5 | 14.2 | 9.7  | 25.6 | 5.3 | 6.7 |
| PM•       | 2M     | 17.6            | 14.0 | 17.2 | 13.0 | 26.0 | 5.3 | 7.1 |

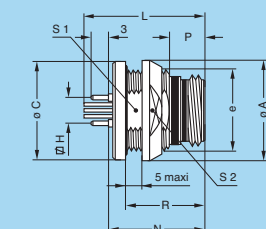
Part number example: PMN.1M.305.XLM



## PH• Free receptacle, key (N) or keys (P and U) with arctic grip and optional mold stop

| Reference |        | Dimensions (mm) |      |      |      |      |     |      |      |     |     |  |
|-----------|--------|-----------------|------|------|------|------|-----|------|------|-----|-----|--|
| Model     | Series | A               | B    | C    | D    | F    | I   | L    | M    | P   | X   |  |
| PH•       | 0M     | 14.4            | 8.8  | 12.7 | 8.0  | 10.7 | 1.5 | 28.6 | 9.7  | 5.3 | 6.7 |  |
| PH•       | 1M     | 15.9            | 10.5 | 14.2 | 9.7  | 12.4 | 1.5 | 28.6 | 9.7  | 5.3 | 6.7 |  |
| PH•       | 2M     | 18.9            | 14.0 | 17.2 | 13.0 | 15.5 | 1.5 | 29.0 | 10.1 | 5.3 | 7.1 |  |

Part number example: PHN.1M.305.XLMT



## HE• Fixed receptacle, nut fixing, key (N) or keys (P and U) for printed circuit, watertight (back panel mounting)

| Reference |        | Dimensions (mm) |      |          |      |      |      |     |      |      |      |  |  |
|-----------|--------|-----------------|------|----------|------|------|------|-----|------|------|------|--|--|
| Model     | Series | A               | C    | e        | H    | L    | N    | P   | R    | S1   | S2   |  |  |
| HE•       | 0M     | 17.0            | 16.8 | M13x0.75 | 5.08 | 20.8 | 16.8 | 5.3 | 13.8 | 11.5 | 14.0 |  |  |
| HE•       | 1M     | 18.0            | 17.8 | M14x1.00 | 7.62 | 20.8 | 16.8 | 5.3 | 13.8 | 12.5 | 16.0 |  |  |
| HE•       | 2M     | 21.0            | 20.8 | M17x1.00 | 8.89 | 20.8 | 16.8 | 5.3 | 13.8 | 15.5 | 18.0 |  |  |

Part number example: HEN.1M.305.XLNP

## Part Numbering System

FM N . 1M . 307 . X L C T

Model

Keyway (color code):  
N = blue (standard)  
P = yellow  
U = green  
S = red (reverse sex contacts)

Series: 0M to 2M

Variant: T = Mold stop, P = Potted

Contact type:  
C = Male crimp  
M = Female crimp  
N = Female PCB

Insert configuration

### Part Number Example

FMN.1M.307.XLCT = Straight plug with key (N), 1M series, multipole type with 7 male crimp contacts, with mold stop.

## Alignment Key and Polarized Keying System

M series connector model part numbers are composed of three letters. The THIRD LETTER indicates the key options available to a particular contact type. Straight plugs with N, P or U keys, are fitted with male contacts. Straight plugs with the S key are fitted with female contacts.

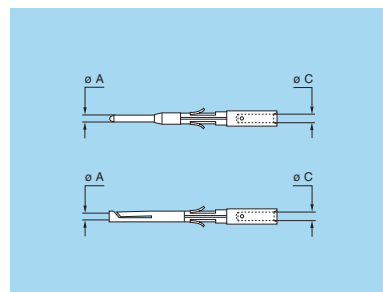
| Front view of a receptacle |  | Model | Nb<br>of keys | Series 0M to 2M |        | Color<br>code | Contact type<br>Electrical |            |
|----------------------------|-----------------------------------------------------------------------------------|-------|---------------|-----------------|--------|---------------|----------------------------|------------|
|                            |                                                                                   |       |               | Angles          |        |               | Plug                       | Receptacle |
|                            |                                                                                   |       |               | β               | γ      |               |                            |            |
|                            |                                                                                   | ●●N   | 3             | 165°            | 30°    | blue          | male                       | female     |
| ●●P                        | 150°                                                                              | 60°   |               | yellow          |        |               |                            |            |
| ●●U                        | 130°                                                                              | 100°  |               | green           |        |               |                            |            |
| ●●S                        | 155°                                                                              | 50°   |               | red             | female | male          |                            |            |

## Insert configuration and electrical characteristics

|           | Male crimp contacts for plug | Female crimp contacts for receptacles | Reference | Number of contacts | ø A (mm) | Contact type |                                | AWG      | Test voltage (kV rms) <sup>1)</sup><br>Contact-contact | Test voltage (kV rms) <sup>1)</sup><br>Contact-shell | Rated current (A) |
|-----------|------------------------------|---------------------------------------|-----------|--------------------|----------|--------------|--------------------------------|----------|--------------------------------------------------------|------------------------------------------------------|-------------------|
|           |                              |                                       |           |                    |          | Crimp        | Print (straight) <sup>2)</sup> |          |                                                        |                                                      |                   |
| <b>0M</b> |                              |                                       | 302       | 2                  | 0.9      | ●            | ●                              | 20-22-24 | 1.45                                                   | 1.00                                                 | 10.0              |
|           |                              |                                       | 303       | 3                  | 0.9      | ●            | ●                              | 20-22-24 | 1.70                                                   | 1.40                                                 | 8.0               |
|           |                              |                                       | 304       | 4                  | 0.7      | ●            | ●                              | 22-24-26 | 1.35                                                   | 0.90                                                 | 7.0               |
|           |                              |                                       | 305       | 5                  | 0.7      | ●            | ●                              | 22-24-26 | 1.25                                                   | 1.00                                                 | 6.5               |
| <b>1M</b> |                              |                                       | 305       | 5                  | 0.9      | ●            | ●                              | 20-22-24 | 1.30                                                   | 1.30                                                 | 9.0               |
|           |                              |                                       | 307       | 7                  | 0.7      | ●            | ●                              | 22-24-26 | 1.45                                                   | 1.20                                                 | 7.0               |
|           |                              |                                       | 308       | 8                  | 0.7      | ●            | ●                              | 22-24-26 | 1.30                                                   | 1.10                                                 | 5.0               |
| <b>2M</b> |                              |                                       | 308       | 8                  | 0.9      | ●            | ●                              | 20-22-24 | 1.95                                                   | 1.10                                                 | 10.0              |
|           |                              |                                       | 310       | 10                 | 0.9      | ●            | ●                              | 20-22-24 | 1.80                                                   | 1.20                                                 | 8.0               |
|           |                              |                                       | 312       | 12                 | 0.7      | ●            | ●                              | 22-24-26 | 1.65                                                   | 1.15                                                 | 7.0               |
|           |                              |                                       | 319       | 19                 | 0.7      | ●            | ●                              | 22-24-26 | 1.55                                                   | 0.95                                                 | 5.0               |

Note: 1) Test voltage according to IEC 60512-2 test 4a. 2) For HE• receptacle.

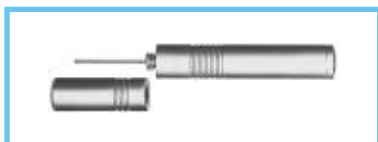
## Accessories



### FGN-EGN Crimp contacts

| Connector |         | Contact ø |      | Conductor |     |                            |      | Part number    |                       |
|-----------|---------|-----------|------|-----------|-----|----------------------------|------|----------------|-----------------------|
| Series    | Type    | ø A       | ø C  | AWG       |     | Section (mm <sup>2</sup> ) |      | male for plug  | female for receptacle |
|           |         |           |      | min       | max | min                        | max  |                |                       |
| 0M        | 302-303 | 0.9       | 1.10 | 24        | 20  | 0.25                       | 0.50 | FGN.0M.560.ZZC | EGN.0M.660.ZZM        |
|           | 304-305 | 0.7       | 0.85 | 26        | 22  | 0.14                       | 0.34 | FGN.0M.555.ZZC | EGN.0M.655.ZZM        |
| 1M        | 305     | 0.9       | 1.10 | 24        | 20  | 0.25                       | 0.50 | FGN.0M.560.ZZC | EGN.0M.660.ZZM        |
|           | 307-308 | 0.7       | 0.85 | 26        | 22  | 0.14                       | 0.34 | FGN.0M.555.ZZC | EGN.0M.655.ZZM        |
| 2M        | 308-310 | 0.9       | 1.10 | 24        | 20  | 0.25                       | 0.50 | FGN.0M.560.ZZC | EGN.0M.660.ZZM        |
|           | 312-319 | 0.7       | 0.85 | 26        | 22  | 0.14                       | 0.34 | FGN.0M.555.ZZC | EGN.0M.655.ZZM        |

## DCF Extractors for crimp contacts



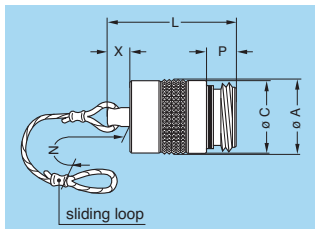
| Contact<br>ø | Extractors<br>part number |
|--------------|---------------------------|
| 0.9          | DCF.93.090.4LT            |
| 0.7          | DCF.93.070.4LT            |

**Note:** this model is used for male and female contacts.

## Heatshrink boot

| Supplier   | Part Number     |                 | Note | Cable ø (mm) |     |
|------------|-----------------|-----------------|------|--------------|-----|
|            | Straight        | Elbow 90°       |      | min.         | max |
| Raychem®   | 202 A 111-25/86 | 222 A 111-25/86 | 1)   | 3.8          | 11  |
|            | 202 A 111-25    | 222 A 111-25    | 2)   | 3.8          | 11  |
| Hellerman® | 104-1-G         | 1108-1-G        | 2)   | 3.8          | 11  |

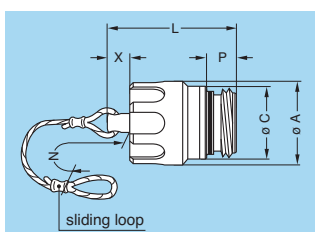
**Note:** 1) modified elastomer resistant to fluids with hot melt sealant.  
2) elastomer resistant to fluids. We recommend a thermosetting sealant with this type of boot.



## BMF Blanking caps for plugs

| Part number    | Dimensions (mm) |      |      |      |     |     |
|----------------|-----------------|------|------|------|-----|-----|
|                | A               | C    | L    | N    | P   | X   |
| BMF.0M.100.XAV | 13.1            | 12.7 | 24.6 | 85.0 | 5.3 | 6.0 |
| BMF.1M.100.XAV | 14.6            | 14.2 | 24.6 | 85.0 | 5.3 | 6.0 |
| BMF.2M.100.XAV | 17.6            | 17.2 | 24.6 | 85.0 | 5.3 | 6.0 |

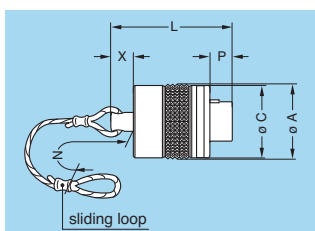
**Note:** this cap is suitable for use with any alignment key configuration.



## BGF Blanking caps for plugs

| Part number    | Dimensions (mm) |      |      |      |     |     |
|----------------|-----------------|------|------|------|-----|-----|
|                | A               | C    | L    | N    | P   | X   |
| BGF.0M.100.XAV | 14.4            | 12.7 | 24.6 | 85.0 | 5.3 | 6.0 |
| BGF.1M.100.XAV | 15.9            | 14.2 | 24.6 | 85.0 | 5.3 | 6.0 |
| BGF.2M.100.XAV | 18.9            | 17.2 | 24.6 | 85.0 | 5.3 | 6.0 |

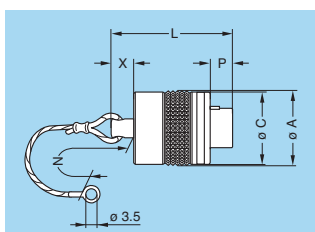
**Note:** this cap is suitable for use with any alignment key configuration.



## BMF Blanking caps for free receptacles

| Part number    | Dimensions (mm) |      |      |      |     |     |
|----------------|-----------------|------|------|------|-----|-----|
|                | A               | C    | L    | N    | P   | X   |
| BMF.0M.200.XAZ | 13.1            | 12.7 | 23.4 | 85.0 | 4.0 | 6.0 |
| BMF.1M.200.XAZ | 14.6            | 14.2 | 23.4 | 85.0 | 4.0 | 6.0 |
| BMF.2M.200.XAZ | 17.6            | 17.2 | 23.4 | 85.0 | 4.0 | 6.0 |

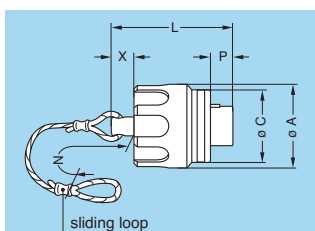
**Note:** this cap is suitable for use with any alignment key configuration.



## BME Blanking caps for fixed receptacles

| Part number    | Dimensions (mm) |      |      |      |     |     |
|----------------|-----------------|------|------|------|-----|-----|
|                | A               | C    | L    | N    | P   | X   |
| BME.0M.200.XAZ | 13.1            | 12.7 | 23.4 | 85.0 | 4.0 | 6.0 |
| BME.1M.200.XAZ | 14.6            | 14.2 | 23.4 | 85.0 | 4.0 | 6.0 |
| BME.2M.200.XAZ | 17.6            | 17.2 | 23.4 | 85.0 | 4.0 | 6.0 |

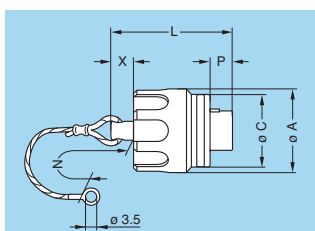
**Note:** this cap is suitable for use with any alignment key configuration.



## BGF Blanking caps for free receptacles

| Part number    | Dimensions (mm) |      |      |      |     |     |
|----------------|-----------------|------|------|------|-----|-----|
|                | A               | C    | L    | N    | P   | X   |
| BGF.0M.200.XAZ | 14.4            | 12.7 | 23.4 | 85.0 | 4.0 | 6.0 |
| BGF.1M.200.XAZ | 15.9            | 14.2 | 23.4 | 85.0 | 4.0 | 6.0 |
| BGF.2M.200.XAZ | 18.9            | 17.2 | 23.4 | 85.0 | 4.0 | 6.0 |

**Note:** this cap is suitable for use with any alignment key configuration.

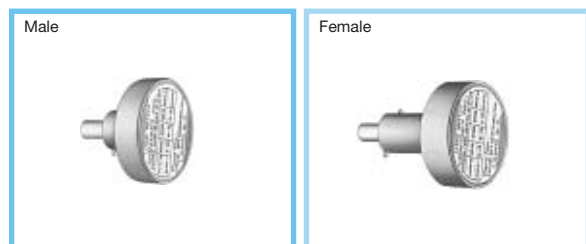


## BGE Blanking caps for fixed receptacles

| Part number    | Dimensions (mm) |      |      |      |     |     |
|----------------|-----------------|------|------|------|-----|-----|
|                | A               | C    | L    | N    | P   | X   |
| BGE.0M.200.XAZ | 14.4            | 12.7 | 23.4 | 85.0 | 4.0 | 6.0 |
| BGE.1M.200.XAZ | 15.9            | 14.2 | 23.4 | 85.0 | 4.0 | 6.0 |
| BGE.2M.200.XAZ | 18.9            | 17.2 | 23.4 | 85.0 | 4.0 | 6.0 |

**Note:** this cap is suitable for use with any alignment key configuration.

## Tooling

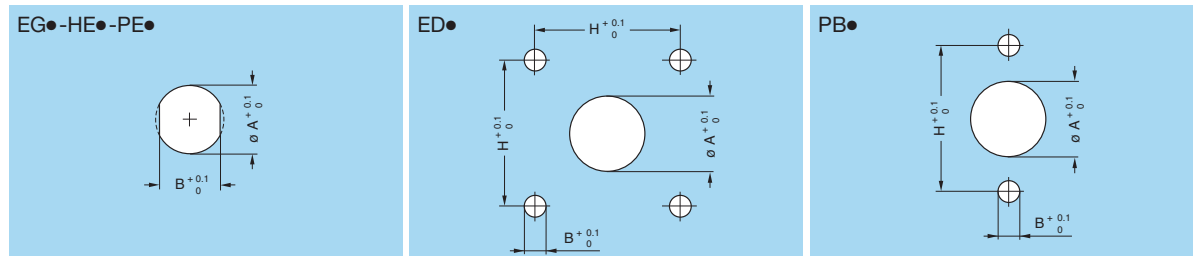


**Note:** These positioners are suitable for use with both manual and pneumatic crimping tools according to the MIL-C-22520/7-01 standard.

## DCE Positioners for crimp contacts

| Connector |         | Contact ø |      | Positioners part number |                     |
|-----------|---------|-----------|------|-------------------------|---------------------|
| Series    | Type    | ø A       | ø C  | For male contacts       | For female contacts |
| 0M        | 302-303 | 0.9       | 1.10 | DCE.91.090.5MVC         | DCE.91.090.3MVM     |
|           | 304-305 | 0.7       | 0.85 | DCE.91.070.5MVC         | DCE.91.070.3MVM     |
| 1M        | 305     | 0.9       | 1.10 | DCE.91.090.5MVC         | DCE.91.090.3MVM     |
|           | 307-308 | 0.7       | 0.85 | DCE.91.070.5MVC         | DCE.91.070.3MVM     |
| 2M        | 308-310 | 0.9       | 1.10 | DCE.91.090.5MVC         | DCE.91.090.3MVM     |
|           | 312-319 | 0.7       | 0.85 | DCE.91.070.5MVC         | DCE.91.070.3MVM     |

## Panel cut-outs



## Cut-outs

| Series | Models |      |      |      |      |      |     |      |      |      |      |      |
|--------|--------|------|------|------|------|------|-----|------|------|------|------|------|
|        | EG●    |      |      | HE●  |      |      | PE● |      |      | ED●  |      |      |
|        | ø A    | B    | H    | ø A  | B    | H    | ø A | B    | H    | ø A  | B    | H    |
| 0M     | 9.1    | 8.3  | 13.1 | 11.6 | 13.1 | 11.6 | 5.1 | M2.5 | 11.0 | 14.8 | M3.0 | 21.4 |
| 1M     | 11.1   | 9.6  | 14.1 | 12.6 | 14.1 | 12.6 | 6.1 | M3.0 | 12.9 | 16.8 | M3.0 | 23.4 |
| 2M     | 14.1   | 12.6 | 17.1 | 15.6 | 17.1 | 15.6 | 9.1 | M3.0 | 15.1 | 19.8 | M3.0 | 26.4 |

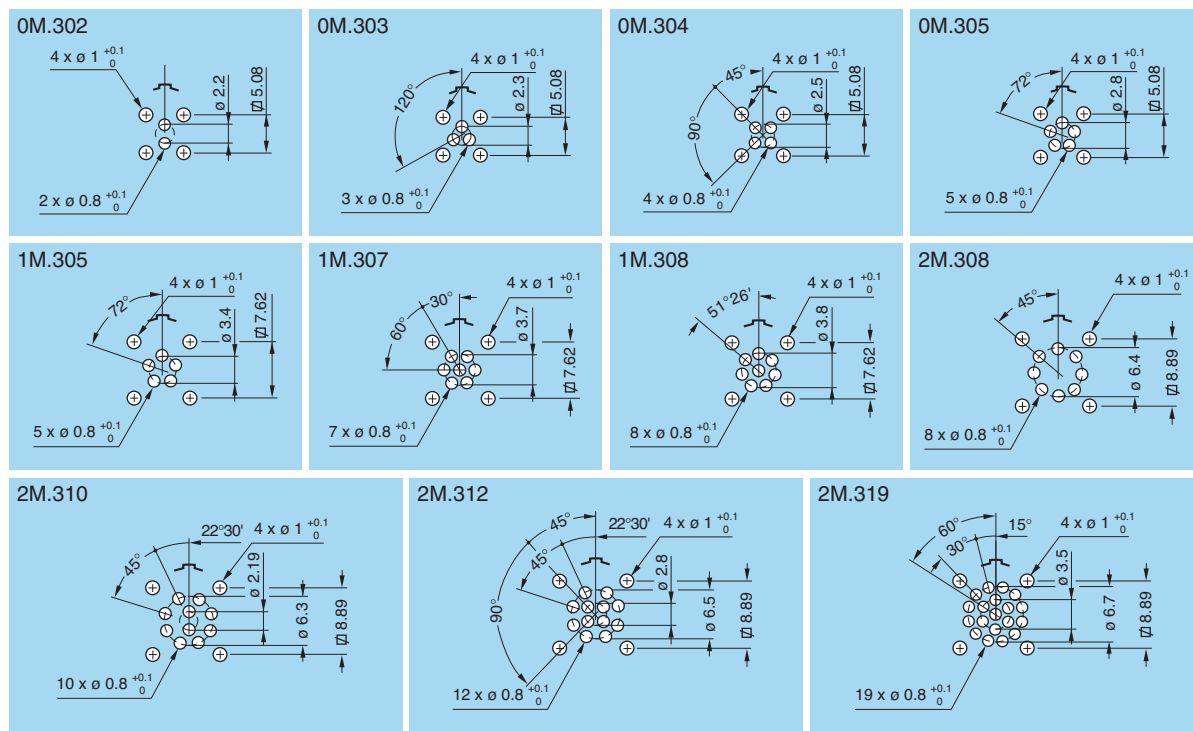
## Tightening/Untightening torque (plug-receptacle)

| Series | Torque (N.cm) |              |
|--------|---------------|--------------|
|        | Tightening    | Untightening |
| 0M     | 2.8-3.9       | 4.6-5.9      |
| 1M     | 3.0-4.0       | 4.5-6.0      |
| 2M     | 7.0-12.0      | 9.0-14.0     |

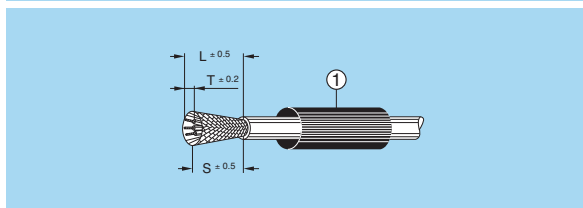
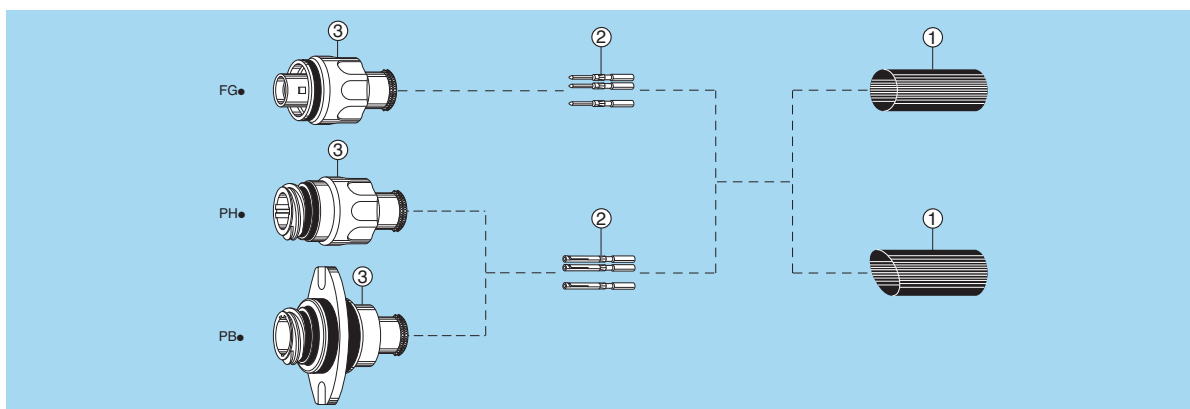
## Mounting nut torque (on panel)

| Series | Torque (N.m) |
|--------|--------------|
| 0M     | 1.0          |
| 1M     | 1.5          |
| 2M     | 2.0          |

## PCB drilling pattern (HE●)



## Assembly instructions for plugs and receptacles



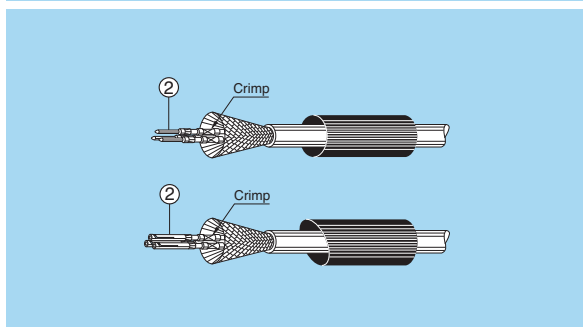
### 1. Cable preparation

First place the heatshrink boot ① over the cable. Strip the cable according to dimensions of the table, then widen the shield.

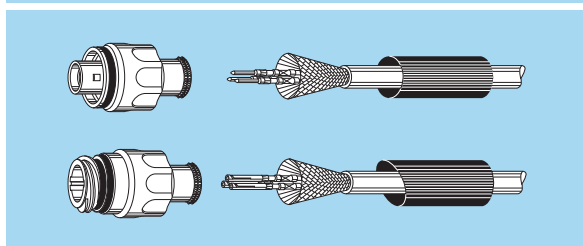
| Series | L  | S   | T |
|--------|----|-----|---|
| 0M     | 13 | 7.0 | 4 |
| 1M     | 13 | 7.0 | 4 |
| 2M     | 13 | 7.5 | 4 |

**Note:** dimensions are in mm.

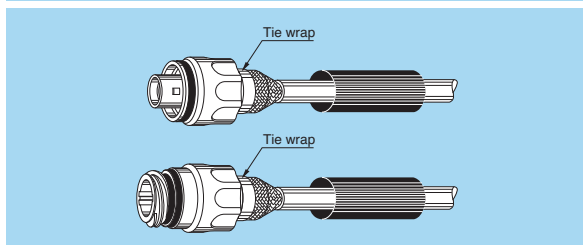
### 2. Cable termination



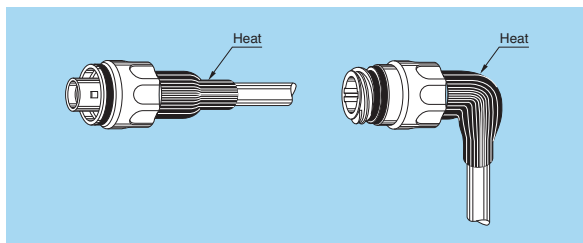
**2.1** With shielded cables, widen and fold the shield to the back. Insert the appropriate positioner onto the crimping tool and set the selector to the number corresponding to the AWG of the conductor used as indicated on the positioner label. Fit the conductor into the contact ②; make sure it is visible through the contact's inspection hole. Slide the conductor-contact assembly into the open crimping tool; make sure that the contact is pushed fully into the positioner then crimp. Remove from crimping tool and check that conductor is secure in contact and shows in inspection hole.



**2.2** Arrange the conductor-contact assemblies according to the markings, into the rear cable seal. Push them deeply into the insulator, using tweezers if necessary; check that all the contacts are correctly located in the insulator: 1) by verifying the alignment of the contacts at the front of the insulator and 2) by gently pulling on each conductor. Verification should also be made using the appropriate retention testing tool.

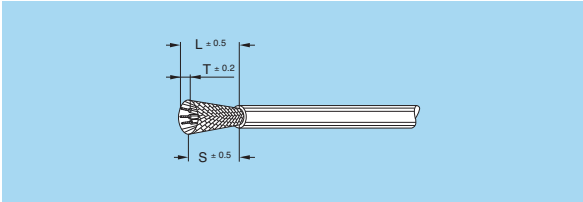
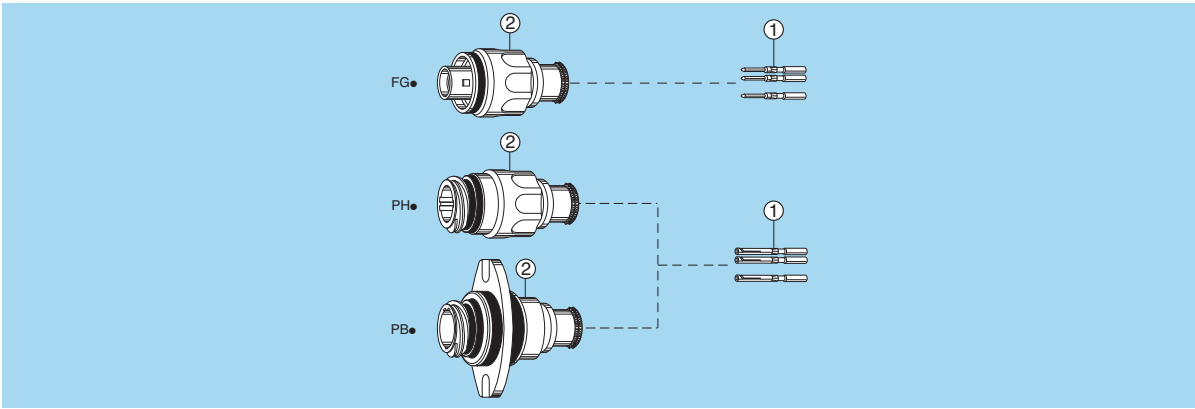


**2.3** Bring the shield around the rear of connector. Secure it with a band-it tie-wrap (not furnished) to fix the shield in place. Cut off the possible shield surplus.



**2.4** Put the heatshrink boot in place and heat gently until it retracts.

# Assembly instructions for plugs and receptacles (with optional mold stop)



## 1. Cable preparation

Strip the cable according to dimensions of the table, then widen the shield.

| Series | L  | S   | T |
|--------|----|-----|---|
| 0M     | 16 | 7.0 | 4 |
| 1M     | 16 | 7.0 | 4 |
| 2M     | 16 | 7.5 | 4 |

Note: dimensions are in mm.

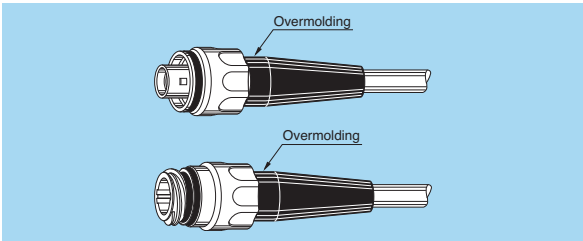
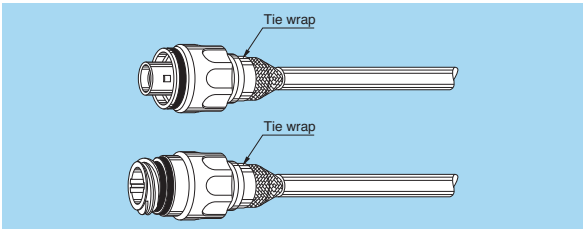
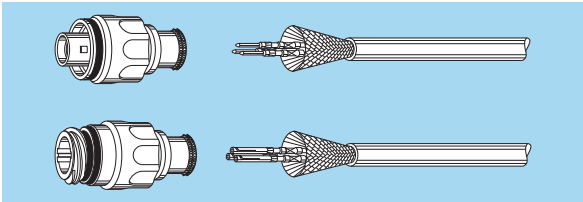
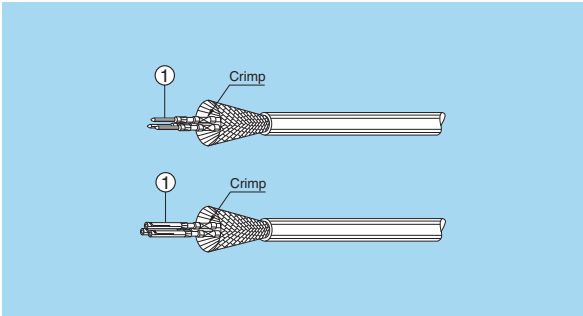
## 2. Cable termination

2.1 With shielded cables, widen and fold the shield to the back. Insert the appropriate positioner onto the crimping tool and set the selector to the number corresponding to the AWG of the conductor used as indicated on the positioner label. Fit the conductor into the contact ①; make sure it is visible through the contact's inspection hole. Slide the conductor-contact assembly into the open crimping tool; make sure that the contact is pushed fully into the positioner and crimp. Remove from crimping tool and check that conductor is secure in contact and shows in inspection hole.

2.2 Arrange the conductor-contact assemblies according to the markings, into the rear cable seal. Push them deeply into the insulator, using tweezers if necessary; check that all the contacts are correctly located in the insulator: 1) by verifying the alignment of the contacts at the front of the insulator and 2) by gently pulling on each conductor. Verification should also be made using the appropriate retention testing tool.

2.3 Bring the shield around the rear of connector until the mold stop. Secure it with a band-it tie-wrap (not furnished) to fix the shield in place. Cut off the possible shield surplus.

2.4 Custom overmold cable assembly.



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