

Standard



*Image for illustrative purpose only*

## Summary

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[M series](#)

[Application leaflet Security Defence](#)

|                                    |                                                |
|------------------------------------|------------------------------------------------|
| Number of contacts Low Voltage     | 8                                              |
| Wire Size/AWG                      | 24 - 20                                        |
| Gender                             | Standard                                       |
| Socket / Receptacle                | Socket / Receptacle - Fixed Panel Rear Mounted |
| Locking system                     | Ratchet                                        |
| Panel Drill Hole                   | M17                                            |
| Jacket cable outside diameter [mm] | 6.50 - 13.00 mm                                |
| Size                               | 2M                                             |
| Suggested matching part            | <a href="#">FMN.2M.308.XLCT</a>                |
| Series                             | M - Rugged Ratchet coupling                    |

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/pen-2m-308-xlmt.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pen-2m-308-xlmt.html)

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# Technical details

## Electrical Configuration

|                                 |                               |
|---------------------------------|-------------------------------|
| Number of contacts Low Voltage  | 8                             |
| Contact Termination Low voltage | Crimp                         |
| R (max)                         | 4.8 mOhm                      |
| Insert configuration value      | 2M.308 - 8 Low Voltage        |
| Insulator                       | L: PEEK                       |
| Rated current                   | 10 A                          |
| Test voltage contact-contact    | 1.7 kV DC                     |
| Test voltage contact-shell      | 1.6 kV DC                     |
| Contact retention               | 30 N                          |
| Max. Conductor                  | 0.5 mm <sup>2</sup> (AWG 20)  |
| Min. Conductor                  | 0.25 mm <sup>2</sup> (AWG 24) |
| Bucket Dia.                     | 1.1 mm (0.043in)              |
| Contact Dia.                    | 0.9 mm (0.035in)              |
| Wire Size/AWG                   | 24 - 20                       |
| Gender                          | Standard                      |

## Form & Material

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Shell style / Model id | PE - Fixed receptacle, nut fixing and mold stop                                                         |
| Socket / Receptacle    | Fixed Panel Rear Mounted                                                                                |
| Housing material       | Aluminium (nickel plated [SAE AMS QQ N 290], anthracite color) shell and nut, other pieces bronze/brass |
| Locking system         | Ratchet                                                                                                 |
| Keying                 | N: 3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)                        |
| Colour                 | Grey                                                                                                    |
| Weight                 | 12.83 g                                                                                                 |
| Panel Drill Hole       | M17                                                                                                     |

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## Environment

|                                   |                                                                        |
|-----------------------------------|------------------------------------------------------------------------|
| Technical domain                  | Motorsport, Security and Defence, Transportation, Aerospace and UAV    |
| Environmental sealing (IP rating) | IP68                                                                   |
| Endurance                         | 3000 mating cycles                                                     |
| Temperature range                 | -20°C / +200°C (max. temperature valid for short periods of use.)      |
| EMI Shielding EIA 364-66A         | >= 80 dB (1 GHz), >=70 dB (3 GHz), >= 58 dB (6 GHz), >= 40 dB (10 GHz) |
| Gunfire vibration                 | 25 Hz - 2000 Hz, 3 axis (Apache helicopter)                            |
| Humidity (max)                    | 21 days at 95%                                                         |
| Lighting strike EIA 364-76        | 10K amps - 6 times                                                     |
| Shock Resistance                  | 300 g [ 3 ms]                                                          |
| Thermal shock                     | 5 cycles: -65°C to +150°C                                              |
| Vibration-Random                  | 37.8 g rms - 3 axes, 4 hr amb [50 Hz - 2000 Hz]                        |
| Vibration-Sine                    | 30 g, 3 axes, 12 hr [10 Hz - 2000 Hz]                                  |
| Salt Spray Corrosion              | max. 48 hr                                                             |

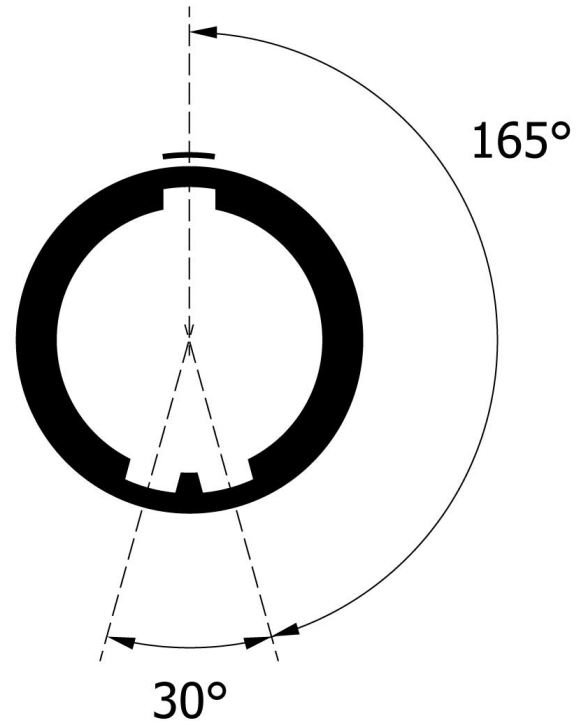
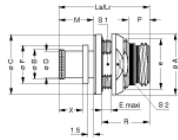
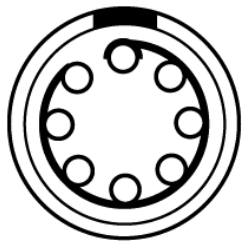
## Cable fixation

|                                    |                         |
|------------------------------------|-------------------------|
| Cable termination protection       | For overmolding         |
| Fixation type                      | Mold stop (overmolding) |
| Jacket cable outside diameter [mm] | 6.50 - 13.00 mm         |

# Drawings

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/pen-2m-308-xlmt.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pen-2m-308-xlmt.html)

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## Dimensions

|     | A    | B    | C    | D    | E   | e        | Ls   | Lr   | M    | P    | R    | S1   | S2   |
|-----|------|------|------|------|-----|----------|------|------|------|------|------|------|------|
| mm. | 21   | 14   | 20.8 | 13   | 5   | M17x1.00 | 26   | 26   | 10.1 | 5.3  | 13.8 | 15.5 | 18   |
| in. | 0.83 | 0.55 | 0.82 | 0.51 | 0.2 |          | 1.02 | 1.02 | 0.4  | 0.21 | 0.54 | 0.61 | 0.71 |

## Recommended By Lemo

### Contacts

Replacement contact [EGN.0M.660.ZZM](#)

### Caps

Compatible cap [BGK.2M.200.XAZ](#)

Cap 2 [BMK.2M.200.XAZ](#)

### Tools

Spanner 2 [DCM.65.180.AZ](#)

Positionner [DCE.91.090.3MVM](#)

Extraction tool [DCC.09.05B.LAG](#)

Insertion tool [DCV.09.05M.LA](#)

Crimp tool [DPC.91.701.V](#)

Spanner wrench [DCM.65.180.AZ](#)

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