

Special



*Image for illustrative purpose only*

## Summary

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[M series](#)

[Application leaflet Security Defence](#)

|                                    |                                 |
|------------------------------------|---------------------------------|
| Number of contacts Low Voltage     | 12                              |
| Wire Size/AWG                      | 26 - 22                         |
| Gender                             | Standard                        |
| Socket / Receptacle                | Socket / Receptacle - Free      |
| Locking system                     | Ratchet                         |
| Jacket cable outside diameter [mm] | 6.50 - 13.00 mm                 |
| Size                               | 2M                              |
| Suggested matching part            | <a href="#">FMN.2M.312.XLCM</a> |
| Series                             | M - Rugged Ratchet coupling     |

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/pm-n-2m-312-xlmm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pm-n-2m-312-xlmm.html)

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# Technical details

## Electrical Configuration

|                                 |                               |
|---------------------------------|-------------------------------|
| Number of contacts Low Voltage  | 12                            |
| Contact Termination Low voltage | Crimp                         |
| R (max)                         | 6.1 mOhm                      |
| Insert configuration value      | 2M.312 - 12 Low Voltage       |
| Insulator                       | L: PEEK                       |
| Rated current                   | 7 A                           |
| Test voltage contact-contact    | 1.7 kV DC                     |
| Test voltage contact-shell      | 1.6 kV DC                     |
| Contact retention               | 22 N                          |
| Max. Conductor                  | 0.34 mm <sup>2</sup> (AWG 22) |
| Min. Conductor                  | 0.14 mm <sup>2</sup> (AWG 26) |
| Bucket Dia.                     | 0.8 mm (0.031in)              |
| Contact Dia.                    | 0.7 mm (0.028in)              |
| Wire Size/AWG                   | 26 - 22                       |
| Gender                          | Standard                      |

## Form & Material

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Shell style / Model id | PM - Free receptacle with knurled grip and MIL-DTL-38999L                                               |
| Socket / Receptacle    | Free                                                                                                    |
| 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                 | 11.78 g                                                                                                 |

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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                                                             |

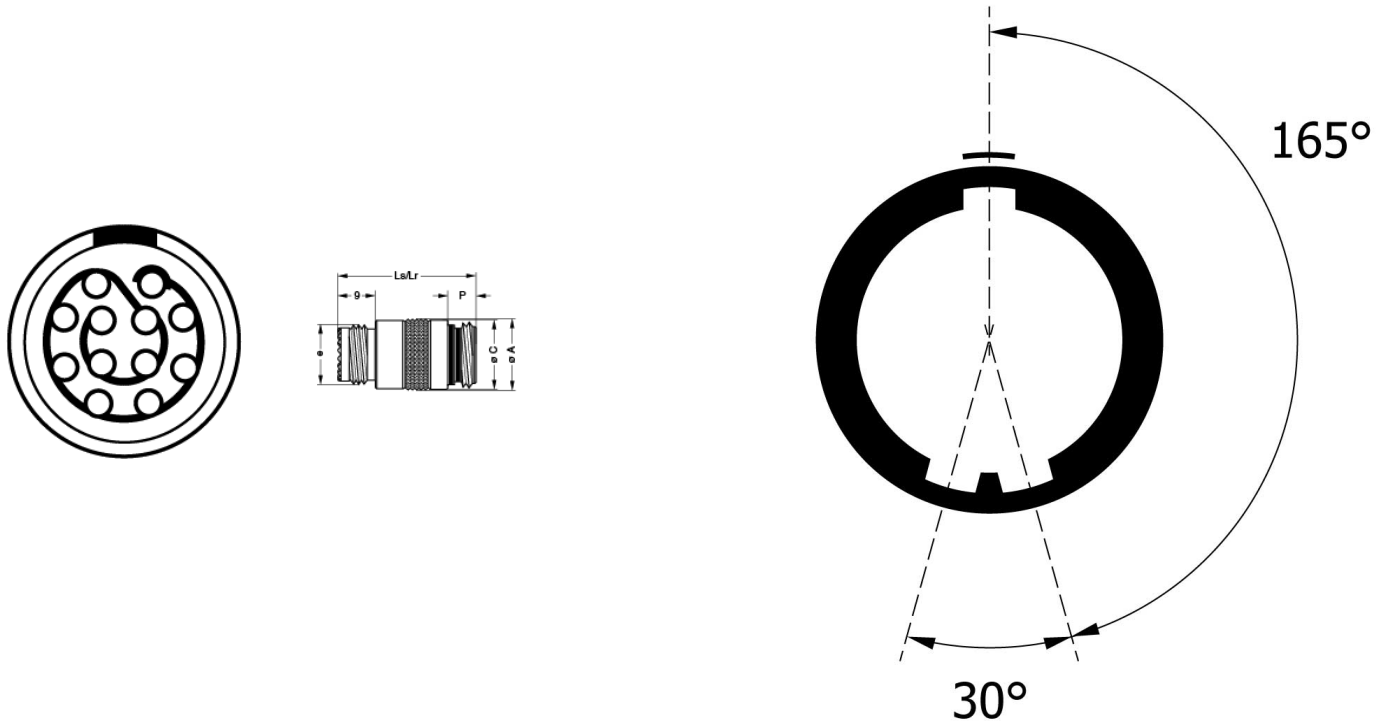
## Cable fixation

|                                    |                              |
|------------------------------------|------------------------------|
| Cable termination protection       | For backshell MIL-DTL-38999M |
| Fixation type                      | MIL-DTL-38999M               |
| Jacket cable outside diameter [mm] | 6.50 - 13.00 mm              |

## Drawings

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/pm-n-2m-312-xlmm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pm-n-2m-312-xlmm.html)

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## Dimensions

|     | A    | C    | e       | Ls   | Lr   | P    |
|-----|------|------|---------|------|------|------|
| mm. | 17.6 | 17.2 | M15x1.0 | 27.9 | 27.9 | 5.3  |
| in. | 0.69 | 0.68 |         | 1.1  | 1.1  | 0.21 |

## Recommended By Lemo

### Contacts

Replacement contact [EGN.0M.655.ZZM](#)

### Caps

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

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

### Tools

Positionner [DCE.91.070.3MVM](#)

Extraction tool [DCC.07.04B.LAG](#)

Insertion tool [DCV.07.05M.LA](#)

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

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