

Standard



*Image for illustrative purpose only*

## Summary

[Request a quote](#)

[M series](#)

[Application leaflet Security Defence](#)

[See video assembly instructions](#)

|                                    |                                                                    |
|------------------------------------|--------------------------------------------------------------------|
| Number of contacts Low Voltage     | 12                                                                 |
| Wire Size/AWG                      | 26 - 22                                                            |
| Gender                             | Standard                                                           |
| Plug                               | Plug - Straight                                                    |
| Locking system                     | Ratchet                                                            |
| Panel Drill Hole                   | M15                                                                |
| Jacket cable outside diameter [mm] | 6.50 - 13.00 mm                                                    |
| Size                               | 2M                                                                 |
| Suggested matching part            | <a href="#">PMN.2M.312.XLMT</a><br><a href="#">PHN.2M.312.XLMT</a> |
| Series                             | M - Rugged Ratchet coupling                                        |

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

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# Technical details

## Electrical Configuration

|                                         |                               |
|-----------------------------------------|-------------------------------|
| Number of contacts Low Voltage          | 12                            |
| Contact Termination Low voltage         | Crimp                         |
| R (max) - electrical contact resistance | 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 (0.031 in)             |
| Contact Dia.                            | 0.7 mm (0.028 in)             |
| Wire Size/AWG                           | 26 - 22                       |
| Gender                                  | Standard                      |

## Form & Material

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Shell style / Model id | FM - Straight plug, key (N) or keys (P, R, S, T, U, V, W and X) with knurled grip and mold stop         |
| Plug                   | Straight                                                                                                |
| 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                 | 10.03 g                                                                                                 |
| Panel Drill Hole       | M15                                                                                                     |

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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                 | -55°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                                                             |

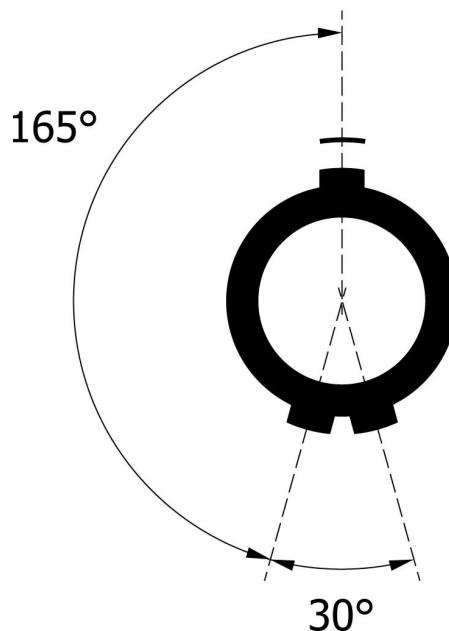
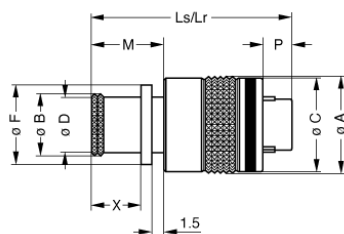
## Cable fixation

|                                    |                         |
|------------------------------------|-------------------------|
| 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/fmn-2m-312-xlct.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-2m-312-xlct.html)

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## Dimensions

|     | A    | B    | C    | D    | F    | Ls   | Lr   | M    | P    | X    |
|-----|------|------|------|------|------|------|------|------|------|------|
| mm. | 17.6 | 14   | 17.2 | 13   | 15.5 | 27.5 | 27.5 | 10.1 | 3.9  | 7.1  |
| in. | 0.69 | 0.55 | 0.68 | 0.51 | 0.61 | 1.08 | 1.08 | 0.4  | 0.15 | 0.28 |

## Recommended By Lemo

### Contacts

Replacement contact [FGN.0M.555.ZZC](#)

### Caps

Compatible cap [BMF.2M.100.XAV](#)

### Tools

Positionner [DCE.91.070.5MVC](#)

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

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

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