

Special



*Image for illustrative purpose only*

## Summary

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[M series](#)

[Application leaflet Security Defence](#)

|                                    |                                                 |
|------------------------------------|-------------------------------------------------|
| Number of contacts Low Voltage     | 4                                               |
| Wire Size/AWG                      | 20 - 16                                         |
| Gender                             | Standard                                        |
| Socket / Receptacle                | Socket / Receptacle - Fixed Panel Front Mounted |
| Locking system                     | Ratchet                                         |
| Jacket cable outside diameter [mm] | 6.50 - 13.00 mm                                 |
| Size                               | 2M                                              |
| Suggested matching part            | <a href="#">FMN.2M.304.XLCT</a>                 |
| Series                             | M - Rugged Ratchet coupling                     |

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/pfn-2m-304-xlmt.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pfn-2m-304-xlmt.html)

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# Technical details

## Electrical Configuration

|                                 |                               |
|---------------------------------|-------------------------------|
| Number of contacts Low Voltage  | 4                             |
| Contact Termination Low voltage | Crimp                         |
| R (max)                         | 3.6 mOhm                      |
| Insert configuration value      | 2M.304 - 4 Low Voltage        |
| Insulator                       | L: PEEK                       |
| Rated current                   | 15.5 A                        |
| Test voltage contact-contact    | 2.22 kV DC                    |
| Test voltage contact-shell      | 1.9 kV DC                     |
| Contact retention               | 40 N                          |
| Max. Conductor                  | 1.43 mm <sup>2</sup> (AWG 16) |
| Min. Conductor                  | 0.62 mm <sup>2</sup> (AWG 20) |
| Bucket Dia.                     | 1.6 mm (0.055in)              |
| Contact Dia.                    | 1.3 mm (0.051in)              |
| Wire Size/AWG                   | 20 - 16                       |
| Gender                          | Standard                      |

## Form & Material

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Shell style / Model id | PF - Fixed receptacle with square flange, with mold stop                                                |
| Socket / Receptacle    | Fixed Panel Front 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                 | 10.12 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                                                             |

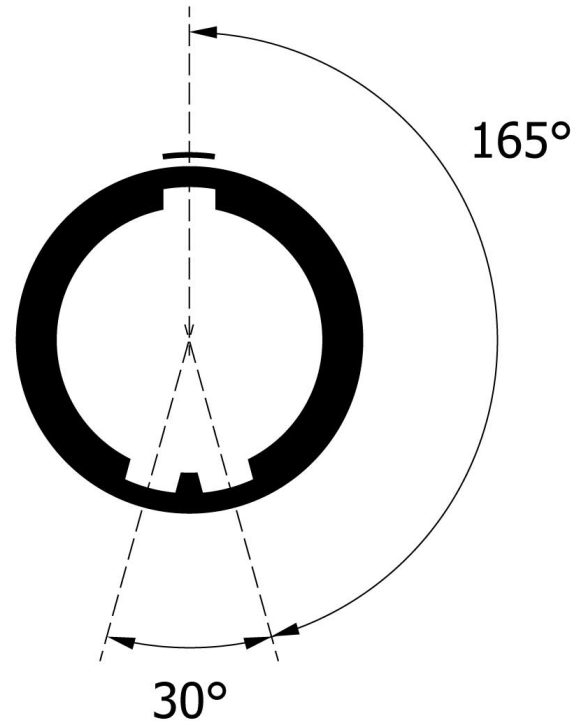
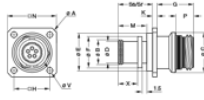
## Cable fixation

|                                    |                         |
|------------------------------------|-------------------------|
| Cable termination protection       | For 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/pfn-2m-304-xlmt.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/pfn-2m-304-xlmt.html)

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## Dimensions

|     | A    | B    | C    | D    | E    | F    | G    | H    | K    | N    | Ss   | Sr   | V    |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| mm. | 26.9 | 14   | 17.2 | 13   | 15.5 | 15.5 | 12.8 | 15.1 | 1.5  | 20.6 | 11.7 | 11.7 | 3.3  |
| in. | 1.06 | 0.55 | 0.68 | 0.51 | 0.61 | 0.61 | 0.5  | 0.59 | 0.06 | 0.81 | 0.46 | 0.46 | 0.13 |

## Recommended By Lemo

### Contacts

Replacement contact [EGN.0M.665.ZZM](#)

### Caps

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

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

### Tools

Positionner [DCE.91.130.5MVM](#)

Extraction tool [DCC.13.15B.LAG](#)

Insertion tool [DCV.13.05M.LA](#)

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

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# Cables

| Cable PartNumber   | Material | Colour | Cable image                                                                         |
|--------------------|----------|--------|-------------------------------------------------------------------------------------|
| 240750             | PVC      | Grey   |  |
| 417920             | PVC      | Grey   |  |
| CTR.75.030.121870G | PVC      | Grey   |  |

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