

Special



*Image for illustrative purpose only*

## Summary

[Request a quote](#)

[M series](#)

[Application leaflet Security Defence](#)

[See video assembly instructions](#)

|                                    |                             |
|------------------------------------|-----------------------------|
| Number of contacts Low Voltage     | 8                           |
| Protocol                           | USB 2.0 (480Mb/s)           |
| Wire Size/AWG                      | 26 - 22                     |
| Gender                             | Standard                    |
| Plug                               | Plug - Straight             |
| Locking system                     | Ratchet                     |
| Jacket cable outside diameter [mm] | 4.85 - 9.70 mm              |
| Size                               | 1M                          |
| Series                             | M - Rugged Ratchet coupling |

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fgn-1m-308-clcm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fgn-1m-308-clcm.html)

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# Technical details

## Electrical Configuration

|                                 |                               |
|---------------------------------|-------------------------------|
| Number of contacts Low Voltage  | 8                             |
| Contact Termination Low voltage | Crimp                         |
| R (max)                         | 6.1 mOhm                      |
| Insert configuration value      | 1M.308 - 8 Low Voltage        |
| Insulator                       | L: PEEK                       |
| Rated current                   | 5 A                           |
| Test voltage contact-contact    | 1.5 kV DC                     |
| Test voltage contact-shell      | 1.27 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)              |
| Protocol                        | USB 2.0 (480Mb/s)             |
| Wire Size/AWG                   | 26 - 22                       |
| Gender                          | Standard                      |

## Form & Material

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Shell style / Model id | FG - Straight plug with arctic grip and MIL spec backend                                                                      |
| Plug                   | Straight                                                                                                                      |
| Housing material       | Brass (chrome plated [SAE AMS 2460]) shell and collet nut, nickel plated [SAE AMS QQ N 290] brass latch sleeve and mid pieces |
| Locking system         | Ratchet                                                                                                                       |
| Keying                 | N: 3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)                                              |
| Colour                 | Grey                                                                                                                          |
| Weight                 | 15.77 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                 | -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              | >1000 hr                                                               |

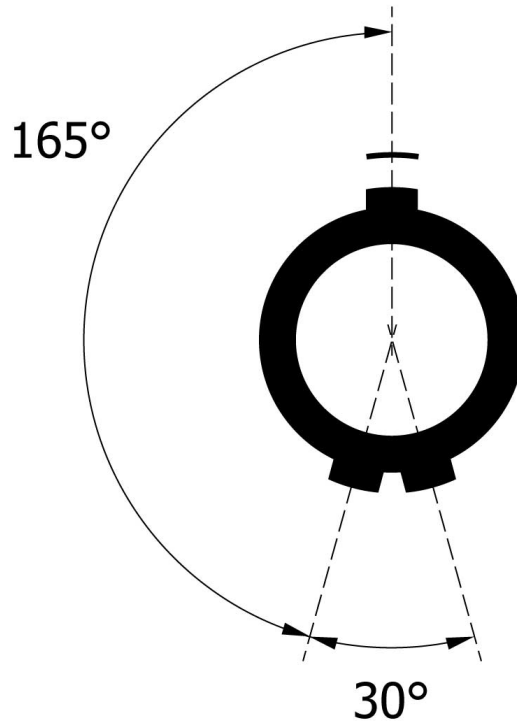
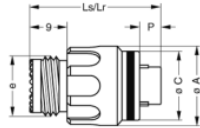
## Cable fixation

|                                    |                              |
|------------------------------------|------------------------------|
| Cable termination protection       | For backshell MIL-DTL-38999M |
| Fixation type                      | MIL-DTL-38999M               |
| Jacket cable outside diameter [mm] | 4.85 - 9.70 mm               |

## Drawings

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/fgn-1m-308-clcm.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fgn-1m-308-clcm.html)

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## Dimensions

|     | A    | C    | e       | Ls   | Lr   | P    |
|-----|------|------|---------|------|------|------|
| mm. | 15.9 | 14.2 | M12x1.0 | 26.4 | 26.4 | 3.9  |
| in. | 0.63 | 0.56 |         | 1.04 | 1.04 | 0.15 |

## Recommended By Lemo

### Contacts

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

### Caps

Compatible cap [BGF.1M.100.CAV](#)

Cap 2 [BAF.1M.100.XNV](#)

### Tools

Positionner [DCE.91.070.5MVC](#)

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

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

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