



Image for illustrative purpose only

## **Summary**

Request a quote

Catalog

See video assembly instructions

| Number of contacts Low Voltage     | 12                          |
|------------------------------------|-----------------------------|
| Wire Size/AWG                      | 26 - 22                     |
| Gender                             | Standard                    |
| Plug                               | Plug - Straight             |
| Locking system                     | Ratchet                     |
| Jacket cable outside diameter [mm] | 6.50 - 13.00 mm             |
| Size                               | 2M                          |
| Suggested matching part            | EGN.2M.312.XLM              |
| Series                             | M - Rugged Ratchet coupling |

https://www.lemo.com/int\_en/solutions/optima/m-ratchet-coupling/fgn-2m-312-xlct.html

# **Technical details**

**Electrical Configuration** 

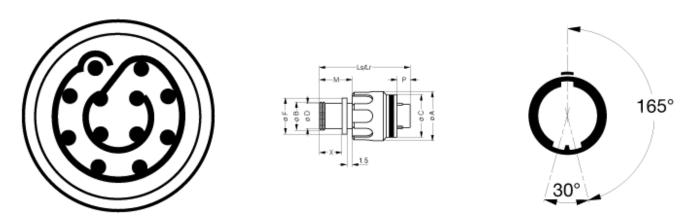
| Electrical Configuration              |   |
|---------------------------------------|---|
| Number of contacts Low Voltage        | 12  |
| Contact Termination Low voltage       | Crimp   |
| R (max)                               | 6.1 mOhm  |
| Insert configuration value            | 2M.312 - 12 Low Voltage   |
| Insulator                             | L: PEEK   |
| Rated current                         | 7 A   |
| Test voltage (kV rms) Contact-contact | 1.65  |
| Test voltage (kV rms) Contact-shell   | 1.15  |
| Contact retention                     | 22 N  |
| Max. Conductor                        | 0.34 mm^2 (AWG 22)  |
| Min. Conductor                        | 0.14 mm^2 (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                | FG - Straight plug with arctic grip and mold stop   |
| Plug                                  | Straight  |
| Housing material                      | Aluminium (nickel plated [SAE AMS QQ N 290],<br>anthracite color) shell and nut, other pieces<br>bronze/brass |
| Locking system                        | Ratchet   |
| Keying                                | N: 3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts)                              |
| Colour                                | Grey  |
| Weight                                | 10.75 g   |
|                                       |   |

 $\underline{https://www.lemo.com/int\_en/solutions/optima/m-ratchet-coupling/fgn-2m-312-xlct.html}$ 

### Environment

| Technical domain                   | Motorsport, Security and Defence, Transportation,<br>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/fgn-2m-312-xlct.html

### **Dimensions**

|     | Α    | В    | С    | D    | F    | Ls   | Lr   | Μ    | Ρ    | X    |
|-----|------|------|------|------|------|------|------|------|------|------|
| mm. | 18.9 | 14   | 17.2 | 13   | 15.5 | 27.5 | 27.5 | 10.1 | 3.9  | 7.1  |
| in. | 0.74 | 0.55 | 0.68 | 0.51 | 0.61 | 1.08 | 1.08 | 0.4  | 0.15 | 0.28 |

### **Recommended By Lemo**

### Accessories

| Replacement contact | FGN.0M.555.ZZC  |  |  |
|---------------------|-----------------|--|--|
| Compatible cap      | BGF.2M.100.XAV  |  |  |
| Tools               |                 |  |  |
| Positionner         | DCE.91.070.5MVC |  |  |
| Extraction tool     | DCF.93.070.4LT  |  |  |
| Crimp tool          | DPC.91.701.V    |  |  |

#### https://www.lemo.com/int\_en/solutions/optima/m-ratchet-coupling/fgn-2m-312-xlct.html