



Summary

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[See video assembly instructions](#)

| | |
|------------------------------------|--------------------------------|
| Low Voltage | 2 |
| Wire Size/AWG | 20 - 16 |
| Gender | Standard |
| Plug | Plug - Straight |
| Locking system | Ratchet |
| Jacket cable outside diameter [mm] | 4.85 - 9.70 mm |
| Size | 1M |
| Matching parts | EGN.1M.302.XLM |
| Series | M - Rugged Ratchet coupling |

Technical details

https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/fmn-1m-302-xlc.html

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Electrical Configuration

| | |
|---------------------------------|------------------------------|
| Contact Termination Low voltage | Crimp |
| R (max) | 3.6 mOhm |
| Insert configuration value | 1M.302 - 2 Low Voltage |
| Insulator | L: PEEK |
| Rated current | 19 Amps |
| Contact retention | 40 N |
| Contact Type | Crimp |
| Max. Conductor | 1 mm ² (AWG 18) |
| Min. Conductor | 0.5 mm ² (AWG 20) |
| Bucket Dia. | 1.4 mm (0.055in) |
| Contact Dia. | 1.3 mm (0.051in) |
| Low Voltage | 2 |
| Wire Size/AWG | 20 - 16 |
| 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 |
| 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 | 3 keys (beta=165, gamma=30, plug: male contacts, receptacle: female contacts) |
| Weight | 6.54 g |

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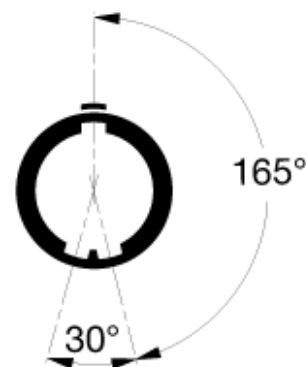
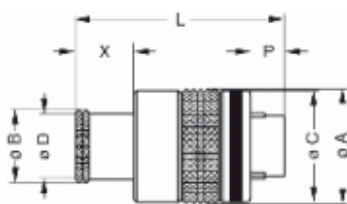
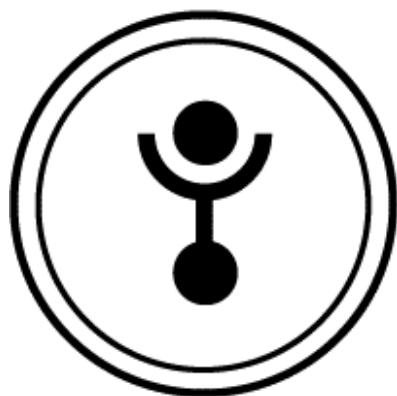
Environment

| | |
|--------------------------------------|--|
| Technical domain | Motorsport, Security and Defence, Transportation, Aerospace and UAV |
| Environmental protection (IP rating) | IP68 |
| Minimal temperature | -20°C / +200°C |
| 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 | Heatshrink |
| Fixation type | Cable collet |
| Jacket cable outside diameter [mm] | 4.85 - 9.70 mm |

Drawings



Dimensions

| | A | B | C | D | Ls | Lr | P | X |
|-----|------|------|------|------|------|------|------|------|
| mm. | 14.6 | 10.5 | 14.2 | 9.7 | 24.1 | 24.1 | 3.9 | 6.7 |
| in. | 0.57 | 0.41 | 0.56 | 0.38 | 0.95 | 0.95 | 0.15 | 0.26 |

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Recommended By Lemo

Accessories

Replacement contact [FGN.0M.565.ZZC](#)








Tools

Positionner [DCE.91.130.5MVC](#)

Extraction tool [DCF.93.131.4LT](#)

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

Cables

| Cable PartNumber | Material | Colour | Cable image |
|--------------------|----------|--------|---|
| CMN.02.T18.064UNCU | | | |
| 102080 | PVC | Grey | |
| 120184 | PVC | Black |  |
| 120500 | PVC | Grey |  |
| 120501 | PVC | Grey |  |
| 120751 | PVC | Grey |  |
| 220151 | PVC | Grey |  |
| 220750 | PVC | Grey |  |
| 320150 | PVC | Grey |  |

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