

Standard

*Image for illustrative purpose only*

## Summary

[Request a quote](#)[M series](#)[Application leaflet Security Defence](#)

|                                |                                                 |
|--------------------------------|-------------------------------------------------|
| Number of contacts Low Voltage | 10                                              |
| Gender                         | Standard                                        |
| Socket / Receptacle            | Socket / Receptacle - Fixed Panel Front Mounted |
| Locking system                 | Ratchet                                         |
| Panel Drill Hole               | M17                                             |
| Size                           | 2M                                              |
| Suggested matching part        | <a href="#">FMN.2M.310.XLC</a>                  |
| Series                         | M - Rugged Ratchet coupling                     |

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/ecn-2m-310-xln.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-310-xln.html)

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# Technical details

## Electrical Configuration

|                                           |                                              |
|-------------------------------------------|----------------------------------------------|
| Number of contacts Low Voltage            | 10                                           |
| Contact Termination Low voltage           | PCB - Straight                               |
| R (max)                                   | 4.8 mOhm                                     |
| Insert configuration value                | 2M.310 - 10 Low Voltage                      |
| Footprint IPC Class3 compatibility        | Yes                                          |
| Class3 Productibility Level Compatibility | A (General Design Producibility - Preferred) |
| Insulator                                 | L: PEEK                                      |
| Rated current                             | 8 A                                          |
| Test voltage contact-contact              | 2 kV DC                                      |
| Test voltage contact-shell                | 1.7 kV DC                                    |
| Contact Dia.                              | 0.9 mm (0.035in)                             |
| Gender                                    | Standard                                     |

## Form & Material

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Shell style / Model id | EC - Fixed receptacle with two nuts, for printed circuit                                                |
| 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                 | 10.47 g                                                                                                 |
| Panel Drill Hole       | M17                                                                                                     |

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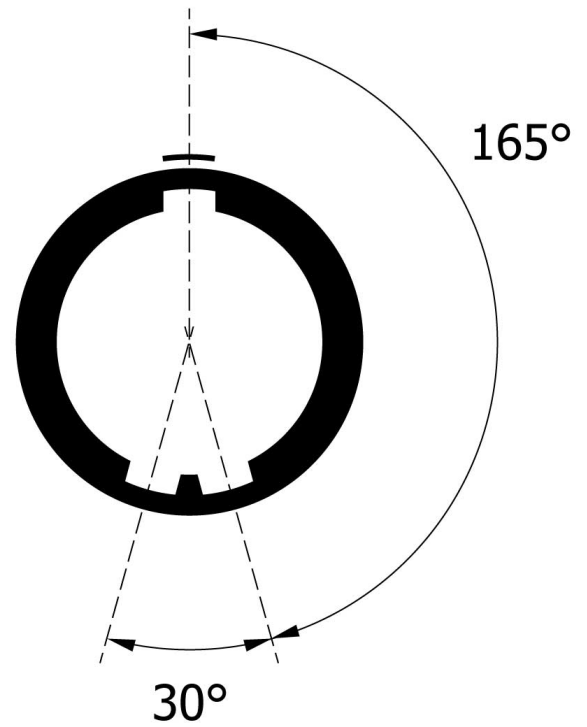
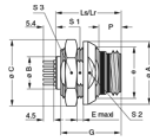
## Environment

|                                   |                                                                        |
|-----------------------------------|------------------------------------------------------------------------|
| Technical domain                  | Motorsport, Security and Defence, Transportation, Aerospace and UAV    |
| Environmental sealing (IP rating) | IP50                                                                   |
| 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                                                             |

## Drawings

[https://www.lemo.com/int\\_en/solutions/optima/m-ratchet-coupling/ecn-2m-310-xln.html](https://www.lemo.com/int_en/solutions/optima/m-ratchet-coupling/ecn-2m-310-xln.html)

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## Dimensions

|     | A    | B    | C    | E    | e        | G    | Ls   | Lr   | P    | S1   | S2   | S3   |
|-----|------|------|------|------|----------|------|------|------|------|------|------|------|
| mm. | 21   | 8.95 | 21.5 | 4    | M17x1.00 | 16.8 | 18.3 | 18.3 | 5.3  | 15.5 | 18   | 19   |
| in. | 0.83 | 0.35 | 0.85 | 0.16 |          | 0.66 | 0.72 | 0.72 | 0.21 | 0.61 | 0.71 | 0.75 |

## Recommended By Lemo

### Caps

|                |                                |
|----------------|--------------------------------|
| Compatible cap | <a href="#">BGK.2M.200.XAZ</a> |
| Cap 2          | <a href="#">BMK.2M.200.XAZ</a> |

### Tools

|                |                               |
|----------------|-------------------------------|
| Spanner 2      | <a href="#">DCM.65.180.AZ</a> |
| Spanner wrench | <a href="#">DCM.65.180.AZ</a> |

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## Documents

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PCB Eagle

[Download](#)

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