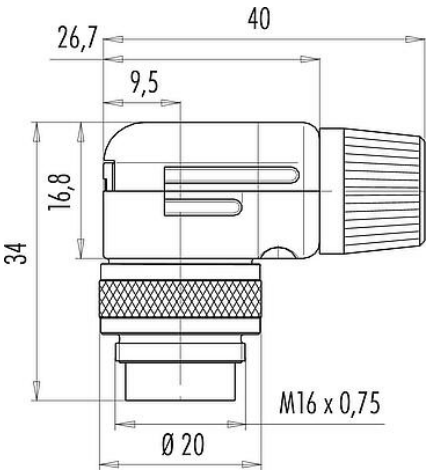
**Product data sheet**
# Miniature connectors

| | |
|---|---|
| Product description | **M16 Male angled connector, Contacts: 19 (19-a), 4.0-6.0 mm, shieldable, solder, IP40** |
| Area | **M16 IP40** |
| Series | **682** |
| Part no. | **99 0163 10 19** |

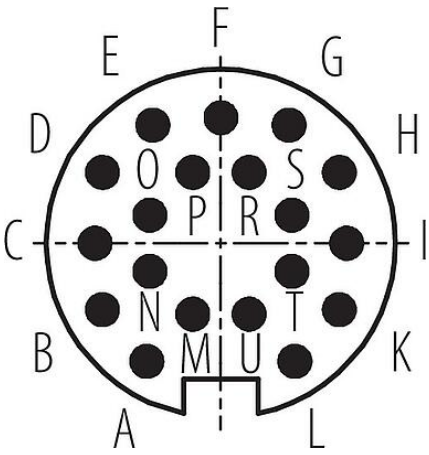
## Illustration (may vary)



## Scale drawing




## Contact arrangement (Plug-in side)




**You can find the assembly instructions on the next page.**

## Technical data

### General features

| | |
|---|---|
| Part no. | 99 0163 10 19 |
| Connector design | Male angled connector |
| Type standard | DIN EN 61076-2-106 |
| Version | Connector pin angled |
| Connector locking system | screw |
| Termination | solder |
| Degree of protection | IP40 |
| Connection cross-section | max. 0.25 mm² / AWG 24 |
| Cable outlet | 4.0-6.0 mm |
| Twistability | 90° (4 coding options) |
| Temperature range from/to | -40 °C / 85 °C |
| Mechanical operation | > 1000 Mating cycles |
| Weight (g) | 35.47 |
| Customs tariff number | 85369010 |
| Country of Origin | DE |

### Electrical parameters

| | |
|---|---|
| Rated voltage | 60 V |
| Rated impulse voltage | 500 V |
| Rated current | 3,0 A |
| Insulation resistance | ≥ $10^{10}$ Ω |
| Pollution degree | 1 |

**Product data sheet**

# Miniature connectors

| | |
|---|---|
| Product description | **M16 Male angled connector, Contacts: 19 (19-a), 4.0-6.0 mm, shieldable, solder, IP40** |
| Area | **M16 IP40** |
| Series | **682** |
| Part no. | **99 0163 10 19** |

| | |
|---|---|
| Overvoltage category | I |
| Insulating material group | III |
| EMC compliance | shieldable |
| Shield connection | cable clamp |

## Material

| | |
|---|---|
| Housing material | Zinc die-cast nickel-plated |
| Contact body material | PBT (UL94 V-0) |
| Contact material | CuZn (brass) |
| Contact plating | Au (gold) |
| REACH SVHC | CAS 7439-92-1 (Lead) |
| SCIP number | 589a266f-8d82-4033-9691-69a3346960c6 |

## Classifications

| | |
|---|---|
| eCl@ss 11.1 | 27-44-01-02 |
| ETIM 9.0 | EC002635 |

## Declarations of conformity

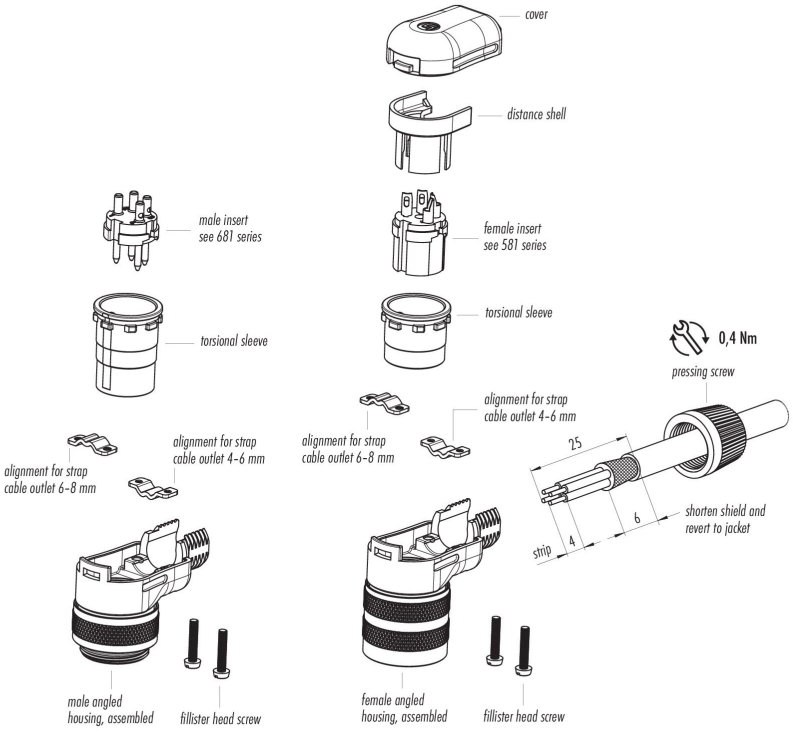
| | |
|---|---|
| Low Voltage Directive | EN 60529:1991 \| EN 60204-1:2018 |

# Product data sheet
## Miniature connectors

| | |
|---|---|
| Product description | **M16 Male angled connector, Contacts: 19 (19-a), 4.0-6.0 mm, shieldable, solder, IP40** |
| Area | **M16 IP40** |
| Series | **682** |
| Part no. | **99 0163 10 19** |

## Assembly instructions

1. Bead pressing screw to cable.
2. Dismantle cable to 25 mm length.
3. Strip single wires, shorten shield and fold over jacket.
4. Solder single wires.
5. Mount torsional sleeve, contact insert and distance shell.
6. Fold cable over and mount strap (with cable outlet 6-8 mm rotated by 180°).
7. Mount cover and tighten pressing screw.



**Product data sheet**
# Miniature connectors

| | |
|---|---|
| Product description | **M16 Male angled connector, Contacts: 19 (19-a), 4.0-6.0 mm, shieldable, solder, IP40** |
| Area | **M16 IP40** |
| Series | **682** |
| Part no. | **99 0163 10 19** |

## Security notices

The connector must not be plugged or unplugged under load. Non-observance and improper use can result in personal injury.

The connectors have been developed for applications in plant engineering, control and electrical equipment construction. The user is responsible for checking whether the connectors can also be used in other areas of application.

To protect against unintentional opening of the connector, the thread between the housing and the connector head must be secured with a suitable cyanoacrylate adhesive when used in circuits with voltages dangerous to the touch. This does not apply to connectors used in SELV and PELV circuits according to IEC 61140 (EN 61140, VDE 0140-1).

Connectors which are used in circuits with voltages dangerous to the touch may only be installed and used by, or under the supervision of, persons with electrical engineering training, taking into account the applicable regulations and standards.

The user must take suitable safety precautions to ensure that the connector cannot be accidentally disconnected.

Please observe the pollution degree and the overvoltage category. For further information, please refer to the download center "Technical Information".

To lock the cable connector with the device connector, the threaded ring is tightened "hand-tight" (approx. 60 cNm).