**Product data sheet**

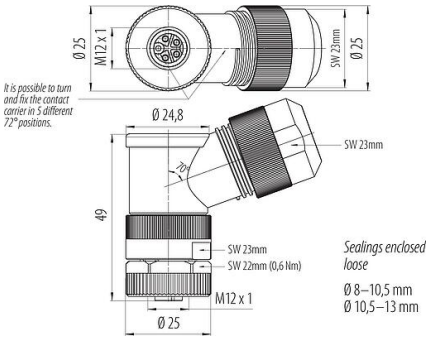
# Automation technology - Voltage and Power Supply

| | |
|---|---|
| Product description | **M12 Female angled connector, Contacts: 4+PE, 8.0-13.0 mm, unshielded, screw clamp, IP67, UL 2237 in preparation, with PE connection** |
| Area | **M12-K** |
| Coding | **K-coded** |
| Series | **824** |
| Part no. | **99 0700 370 05** |

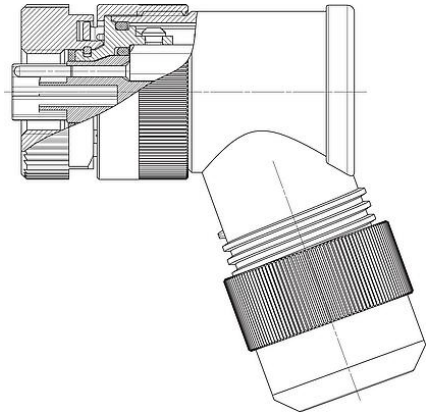
## Illustration (may vary)



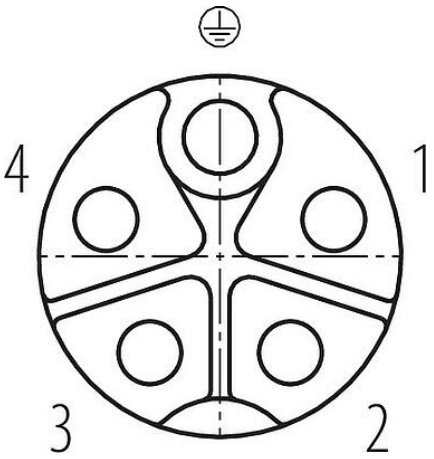
## Scale drawing




## Scale drawing



## Contact arrangement (Plug-in side)




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

## Technical data

### General features

| | |
|---|---|
| Part no. | 99 0700 370 05 |
| Connector design | Female angled connector |
| Type standard | DIN EN IEC 61076-2-111:2018-10;VDE 0687-76-2-111:2018-10 |
| Coding | K-coded |

**Product data sheet**

# Automation technology - Voltage and Power Supply

| | |
|---|---|
| Product description | **M12 Female angled connector, Contacts: 4+PE, 8.0-13.0 mm, unshielded, screw clamp, IP67, UL 2237 in preparation, with PE connection** |
| Area | **M12-K** |
| Coding | **K-coded** |
| Series | **824** |
| Part no. | **99 0700 370 05** |

| | |
|---|---|
| Version | Connector pin straight |
| Connector locking system | screw |
| Termination | screw clamp |
| Degree of protection | IP67 |
| Connection cross-section | max. 1.50 mm² with ferrule / max. 2.50 mm² without ferrule / AWG 16 with wire-end ferrule / AWG 14 without wire-end ferrule |
| Cable outlet | 8.0-13.0 mm |
| Temperature range from/to | -40 °C / 85 °C |
| Mechanical operation | > 100 Mating cycles |
| Weight (g) | 58.62 |
| Customs tariff number | 85369010 |
| Country of Origin | DE |

## Electrical parameters

| | |
|---|---|
| Rated voltage | 630 V |
| Rated impulse voltage | 6000 V |
| Rated current | 12.0 A |
| Insulation resistance | > $10^{10}$ Ω |
| Pollution degree | 3 |
| Overvoltage category | III |
| Insulating material group | I |
| EMC compliance | unshielded |

## Material

| | |
|---|---|
| Housing material | PA |
| Contact body material | PA (UL94 V-0) |
| Contact material | CuZn (brass) |
| Contact plating | Au (gold) |
| REACH SVHC | CAS 7439-92-1 (Lead) |
| SCIP number | 684e41b7-8292-4d33-8913-e6f5ac19ab51 |

## Classifications

| | |
|---|---|
| ETIM 9.0 | EC002635 |

## Declarations of conformity

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

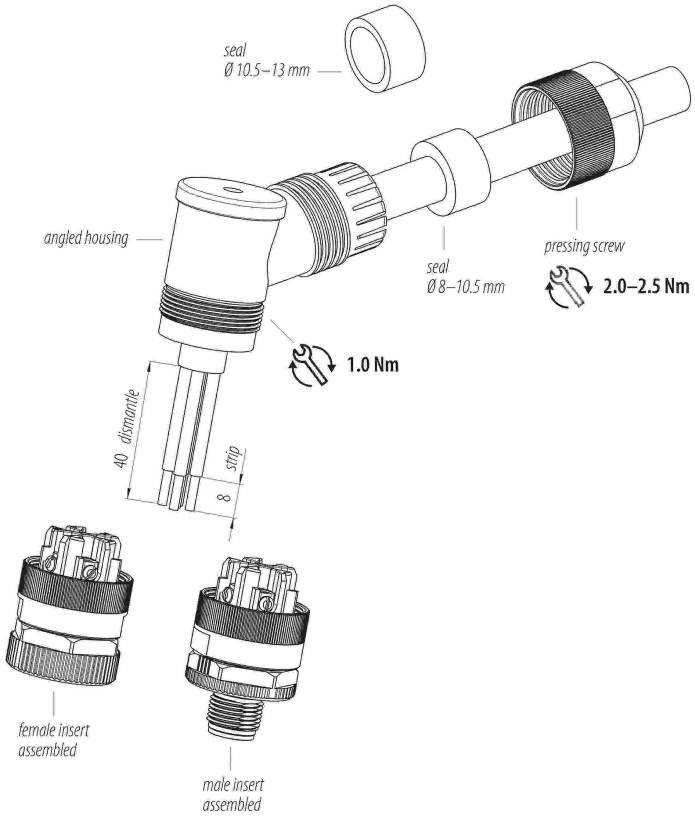
**Product data sheet**

# Automation technology - Voltage and Power Supply

| | |
|---|---|
| Product description | **M12 Female angled connector, Contacts: 4+PE, 8.0-13.0 mm, unshielded, screw clamp, IP67, UL 2237 in preparation, with PE connection** |
| Area | **M12-K** |
| Coding | **K-coded** |
| Series | **824** |
| Part no. | **99 0700 370 05** |

## Assembly instructions

1. *Clamp out screws until bores for single wires are completely free.*
2. *Push pressing screw, suitable seal and angled housing individually on cable.*
3. *Cut off cable coating.*
4. *Strip single cores and twist single wires.*
5. *Insert single wires into the holes and tighten clamping screws (0.4 Nm).*
6. *Slide angled housing to the contact insert (if necessary pull on the cable) and press on. Secure screw connection between angled housing and contact insert with one or two drops of cyanoacrylate adhesive to prevent unintentional unmating. Then screw parts together. Pay attention to the position of the coding to the cable outlet. Adjustable in 72° steps.*
7. *Push seal into the angled housing as far as it will go, if necessary, press in with the flat side of the screwdriver blade.*
8. *Screw and tighten pressing screw (2.0–2.5 Nm).*

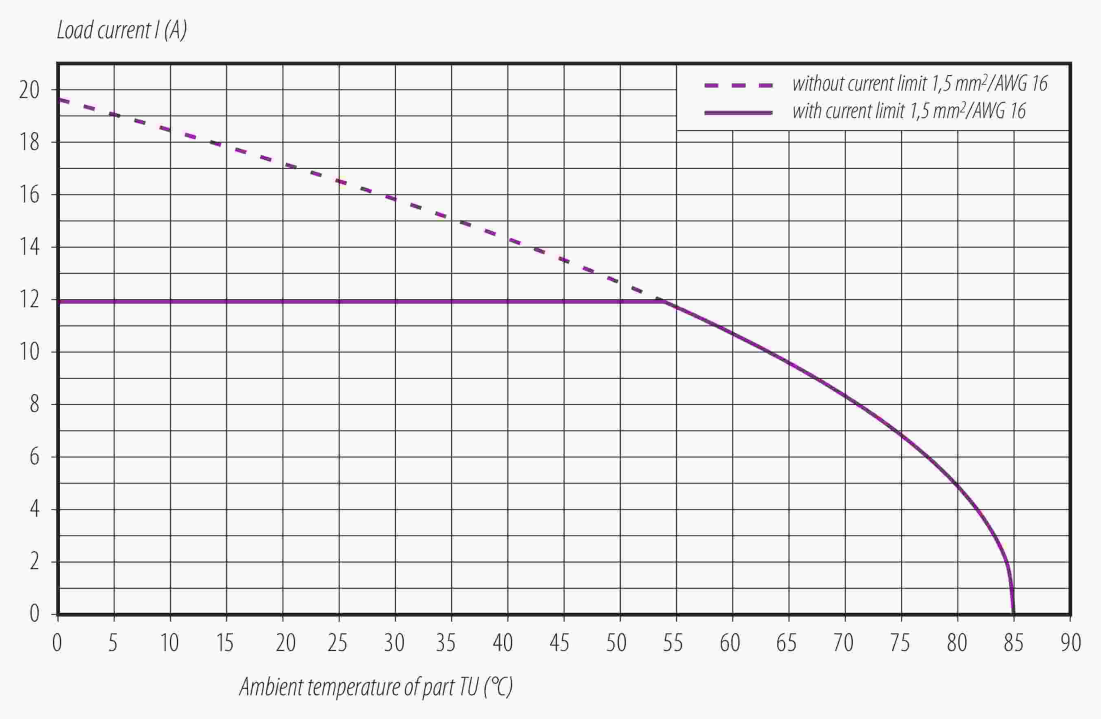


**Product data sheet**

# Automation technology - Voltage and Power Supply

| | |
|---|---|
| Product description | **M12 Female angled connector, Contacts: 4+PE, 8.0-13.0 mm, unshielded, screw clamp, IP67, UL 2237 in preparation, with PE connection** |
| Area | **M12-K** |
| Coding | **K-coded** |
| Series | **824** |
| Part no. | **99 0700 370 05** |

## Derating curve

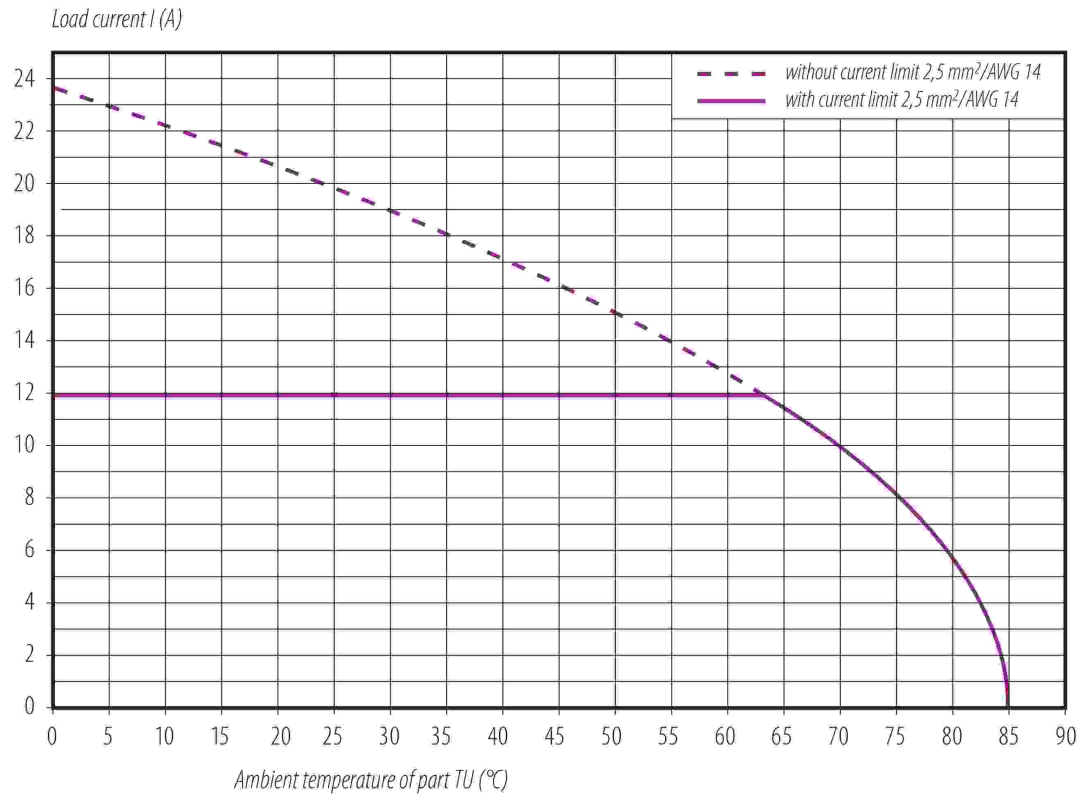


**Product data sheet**

# Automation technology - Voltage and Power Supply

| | |
|---|---|
| Product description | **M12 Female angled connector, Contacts: 4+PE, 8.0-13.0 mm, unshielded, screw clamp, IP67, UL 2237 in preparation, with PE connection** |
| Area | **M12-K** |
| Coding | **K-coded** |
| Series | **824** |
| Part no. | **99 0700 370 05** |

## Derating curve



**Product data sheet**

# Automation technology - Voltage and Power Supply

| | |
|---|---|
| Product description | **M12 Female angled connector, Contacts: 4+PE, 8.0-13.0 mm, unshielded, screw clamp, IP67, UL 2237 in preparation, with PE connection** |
| Area | **M12-K** |
| Coding | **K-coded** |
| Series | **824** |
| Part no. | **99 0700 370 05** |

## 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.

Plug connectors with enclosure protection IP67 and IP68 are not suitable for use under water. When used outdoors, the plug connectors must be protected separately against corrosion. For further information on the IP protection classes, please refer to the "Technical Information" download centre.

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).

In the case of cable connectors with a metal threaded ring, it is imperative to ensure a connection with the PE protective contact of the appliance connector. Connecting cables between appliance connectors that are not connected to the PE contact are not permitted. The user must ensure a continuous connection of the protective earth conductor.