

# Product data sheet

## Automation technology - Voltage and Power Supply

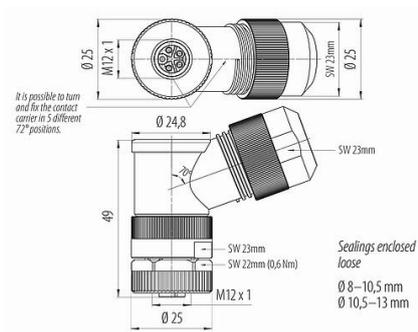


Product description	<b>M12 Female angled connector, Contacts: 4+PE, 8.0-13.0 mm, unshielded, screw clamp, IP67, UL 2237 in preparation, with PE connection</b>
Area	<b>M12-K</b>
Coding	<b>K-coded</b>
Series	<b>824</b>
Part no.	<b>99 0700 370 05</b>

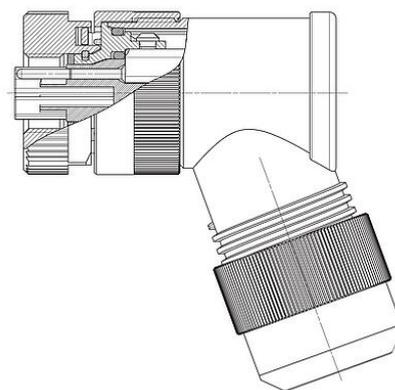
### Illustration



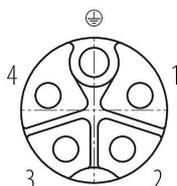
### Scale drawing



### Scale drawing



### Contact arrangement (Plug-in side)



You can find the assembly instructions on the next page.

### Technical data

#### General features

Part no.	<b>99 0700 370 05</b>
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
Version	Connector pin straight
Connector locking system	screw
Termination	screw clamp
Degree of protection	IP67
Connection cross-section	max. 1.50 mm <sup>2</sup> with ferrule / max. 2.50 mm <sup>2</sup> without ferrule / AWG 16 with wire-end ferrule / AWG 14 without wire-end ferrule
Cable outlet	8.0-13.0 mm

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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 <sup>10</sup> 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
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### Declarations of conformity

Low Voltage Directive	2014/35/EU (EN 60529:1991   2014/35/EU;EN 60204-1:2018)
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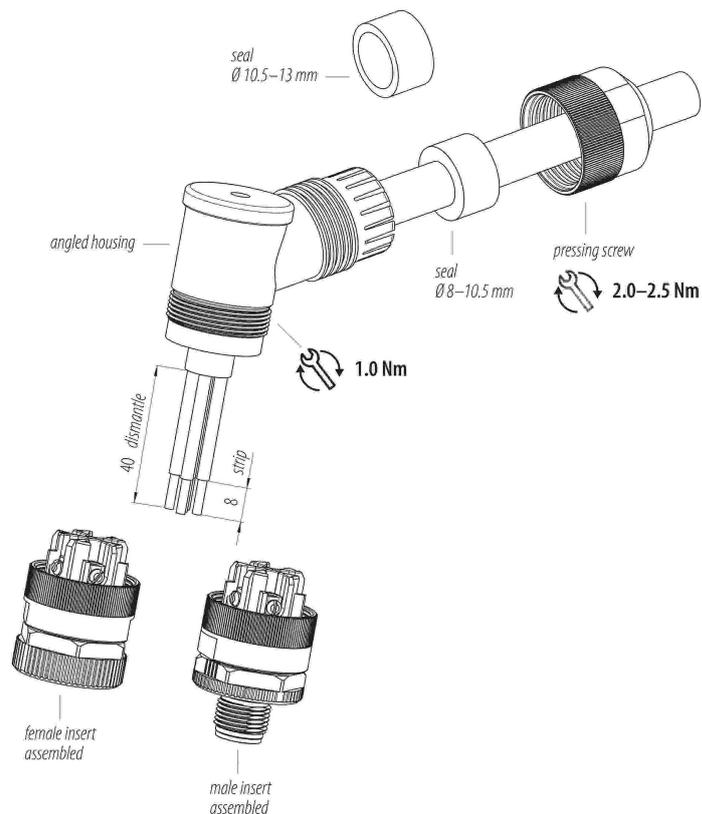
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### Assembly instructions

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).



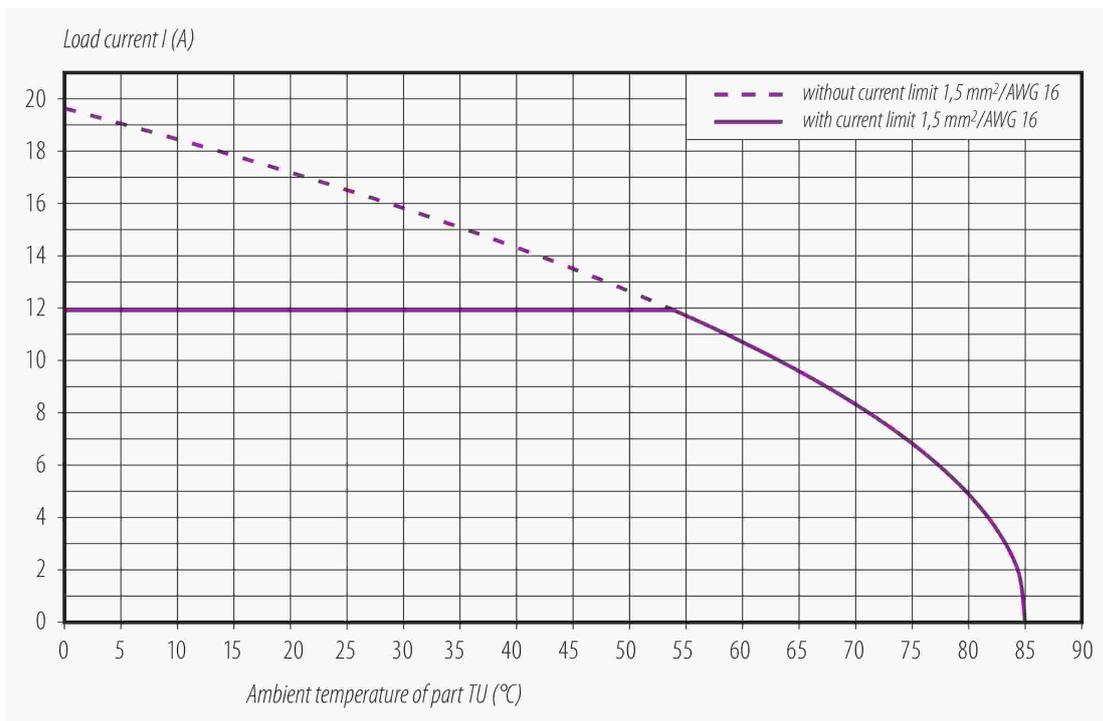
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### Derating curve



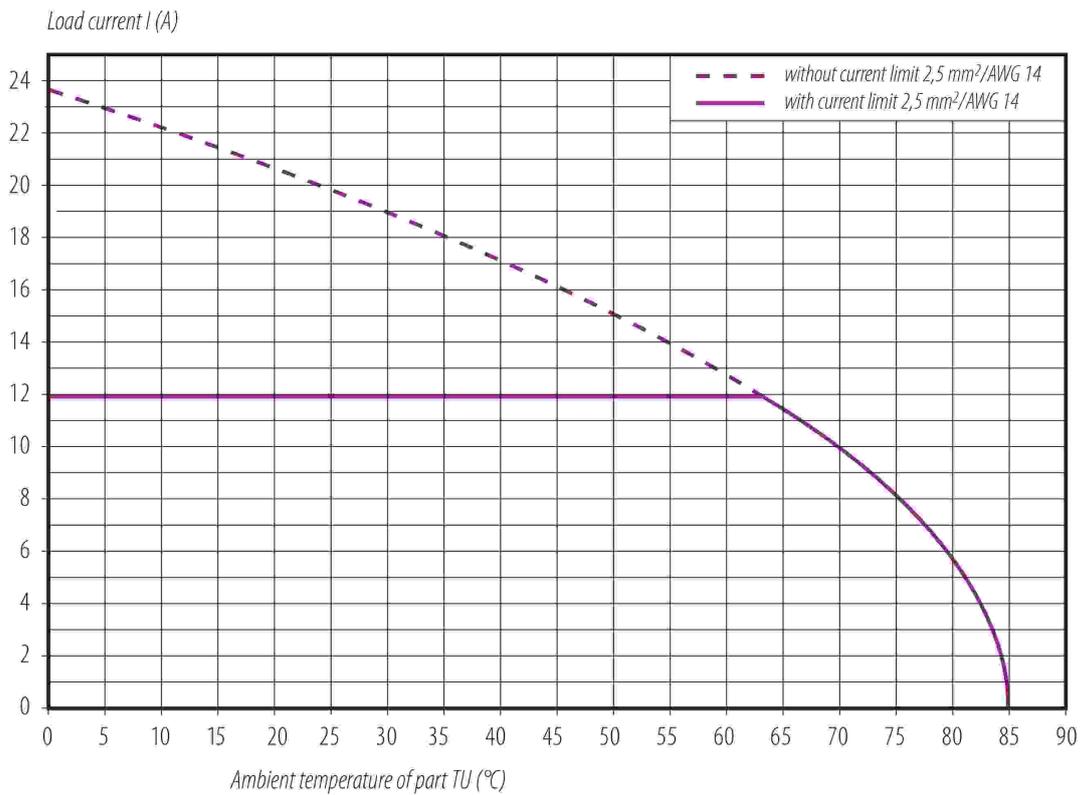
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## General Disclaim Notice

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.