Product data sheet

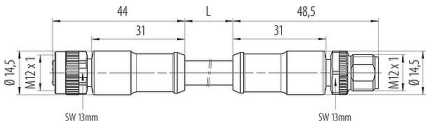
Automation technology - Voltage and Power Supply

Product description	**M12 Connecting cable male cable connector - female cable connector, Contacts: 4, unshielded, moulded on the cable, IP68, UL 2238, PUR, black, 4 x 1.50 mm², 5 m**
Area	**M12-T**
Coding	**T-coded**
Series	**813**
Part no.	**77 0630 0629 50704-0500**

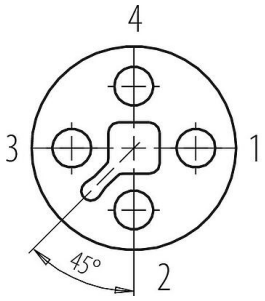
Illustration (may vary)



Scale drawing



Contact arrangement (Plug-in side)



1 brown
2 white
3 blue
4 black

Cable length tolerance

cable length	tolerance
≥ 0,10 m	+ 0,03 m
≥ 0,20 m	+ 0,04 m
≥ 0,50 m	+ 0,07 m
≥ 1,00 m	+ 0,10 m
≥ 2,00 m	+ 0,15 m
≥ 5,00 m	+ 0,20 m
≥ 10,0 m	+ 0,25 m
≥ 20,0 m	+ 0,35 m

Technical data

General features

Part no.	77 0630 0629 50704-0500
Connector design	Connecting cable male cable connector - female cable connector
Type standard	DIN EN IEC 61076-2-111:2018-10;VDE 0687-76-2-111:2018-10
Coding	T-coded
Cable length	5 m (Other lengths are available on request.)
Version	Double ended cordsets

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Connector locking system	screw
Termination	moulded on the cable
Degree of protection	IP68
Connection cross-section	1.50 mm² / AWG 16
Temperature range from/to	-40 °C / 85 °C
Mechanical operation	> 100 Mating cycles
Weight (g)	793.45
Customs tariff number	85444290
Country of Origin	DE

Electrical parameters

Rated voltage	63 V
Rated impulse voltage	1500 V
Rated current	12.0 A
Pollution degree	3
Overvoltage category	III
Insulating material group	II
EMC compliance	unshielded

Material

Housing material	PA (UL94 V-0)
Contact body material	PA (UL94 V-0)
Contact material	CuZn (brass) / CuSn (bronze)
Contact plating	Au (gold)
REACH SVHC	CAS 7439-92-1 (Lead)
SCIP number	9528f550-37bf-4e14-8072-525c048663f8

Cable data - Structure of the cable

Cable diameter	8.0 mm
Cross section	4 x 1.50 mm²
Sheath material	PUR
Single-lead insulation	PP
Single-lead structure	84 x 0.15 mm
Cable color	black

Cable data - Electrical properties

Conductor resistance	13.3 Ω/Km (20°C)

Cable data - Mechanical properties

Bending radius, fixed cable	≥ 7.5 x Ø
Bending radius, moving cable	≥ 10 x Ø
Bending cycles	5 million
Permitted acceleration	5 m/s²

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Travel distance, horizontal	20 m
Travel speed	≤ 300 m/min

Cable data - Thermal properties

Temperature range cable in move from/to	-30 °C / 80 °C
Temperature range cable fixed from/to	-50 °C / 80 °C

Cable data - Other features

Halogen free	yes

Authorization/approvals

Approvals	UL 2238

Classifications

eCl@ss 11.1	27-06-03-11
ETIM 9.0	EC002638

Declarations of conformity

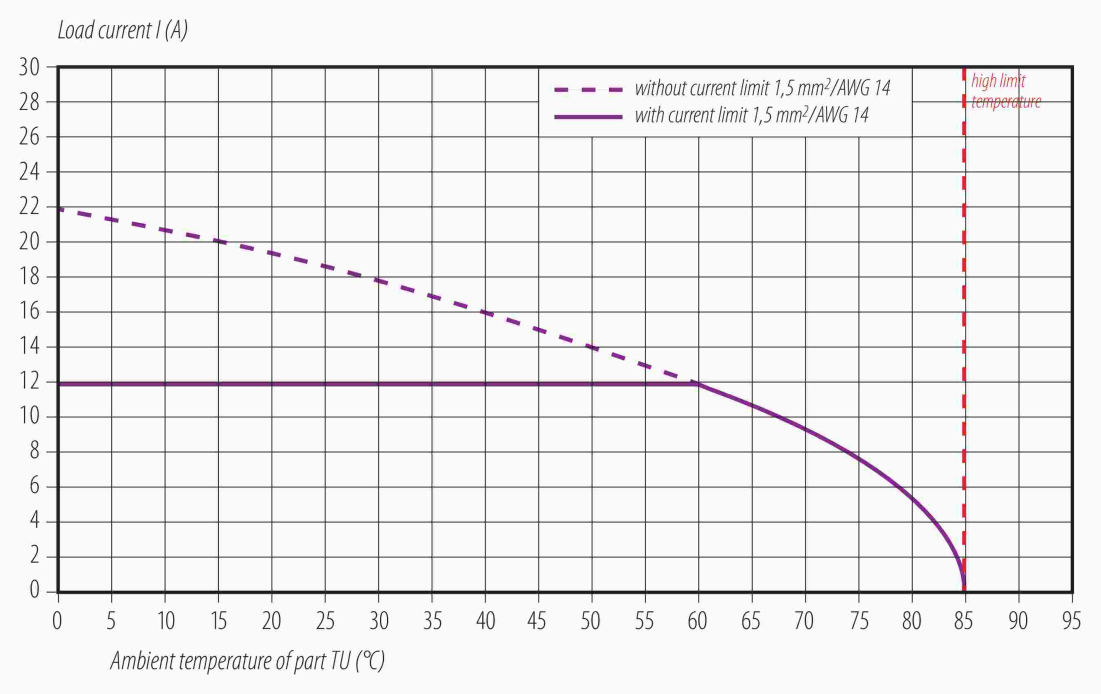
Low Voltage Directive	EN 60529:1991 | EN 60204-1:2018
RoHS Directive	EN IEC 63000:2018

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Derating curve



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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).