

Product data sheet

Automation technology - Data transmission

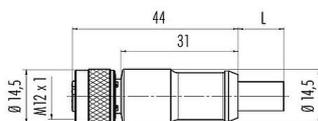


Product description	M12 Female cable connector, Contacts: 4, shielded, moulded on the cable, IP67, UL 2238, Profinet/Ethernet CAT5e, PUR, green, 4 x AWG 22, 2 m
Area	M12-D
Coding	D-coded
Series	876
Part no.	77 4530 0000 50704-0200

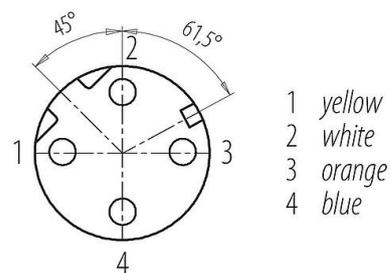
Illustration



Scale drawing



Contact arrangement (Plug-in side)



Cable length tolerance

<i>cable length</i>	<i>tolerance</i>
≥ 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 4530 0000 50704-0200
Connector design	Female cable connector
Type standard	DIN EN 61076-2-101
Coding	D-coded
Cable length	2 m (Standard 2 m and 5 m. Other lengths are available on request.)
Version	Connector socket straight
Connector locking system	screw
Termination	moulded on the cable
Degree of protection	IP67
Connection cross-section	1 x 4 x AWG 22
Temperature range from/to	-40 °C / 85 °C
Mechanical operation	> 100 Mating cycles
Weight (g)	169
Customs tariff number	85444290

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Country of Origin	DE
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Electrical parameters

Rated voltage	250 V
Rated impulse voltage	2500 V
Rated current	4.0 A
Insulation resistance	$> 10^{10} \Omega$
Pollution degree	3
Transmission rate	CAT 5
Overvoltage category	II
Insulating material group	I
EMC compliance	shielded
Shield connection	Shield on the threaded ring

Material

Housing material	PUR
Contact body material	PUR
Contact material	CuSn (bronze)
Contact plating	Au (gold)
Locking material	Zinc die-cast nickel-plated
REACH SVHC	CAS 7439-92-1 (Lead)
SCIP number	2a8ef765-b60e-478a-a37c-586225e1fbde

Cable data - Structure of the cable

Cable type	Profinet/Ethernet CAT5e
Cable diameter	6.7 mm
Cross section	4 x AWG 22
Sheath material	PUR
Single-lead insulation	Polyolefin
Single-lead structure	AWG 22/7
Cable color	green

Cable data - Electrical properties

Conductor resistance	55 Ω /Km (20°C)
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Cable data - Mechanical properties

Bending radius, fixed cable	$\geq 5 \times \emptyset$
Bending radius, moving cable	$\geq 15 \times \emptyset$
Bending cycles	2 million
Permitted acceleration	max. 2 m/s ²
Travel distance, horizontal	at 5 m/s ² -> 5 m
Travel distance, vertical	at 5 m/s ² -> 5 m
Travel speed	≤ 200 m/min (5 m horizontal distance)

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Cable data - Thermal properties

Temperature range cable in move from/to	-20 °C / 60 °C
Temperature range cable fixed from/to	-40 °C / 80 °C

Cable data - Other features

Halogen free	yes
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Authorization/approvals

Approvals	UL 2238
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Classifications

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

Declarations of conformity

Low Voltage Directive	2014/35/EU (EN 60529:1991;EN 60204-1:2018)
RoHS Directive	2011/65/EU (EN 50581:2012)

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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".