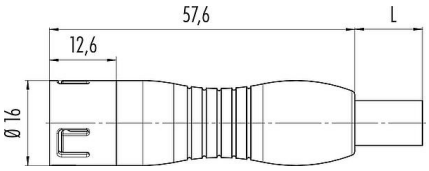
Product data sheet
Miniature connectors

Product description	**Snap-In Male cable connector, Contacts: 12, unshielded, moulded on the cable, IP67, UL 2238, PUR, black, 12 x 0.25 mm², 2 m**
Area	**Snap-In IP67**
Series	**720**
Part no.	**77 6405 0000 50012-0200**

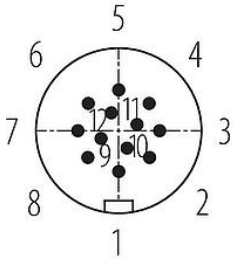
Illustration (may vary)



Scale drawing



Contact arrangement (Plug-in side)



1 white
2 brown
3 green
4 yellow
5 grey
6 pink
7 blue
8 red
9 black
10 purple
11 grey/pink
12 red/blue

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 6405 0000 50012-0200** Alternative part no.: 79 9177 020 12

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Notice	Please note that, due to the change from the old to the new order number, there may be deviations in the technical specifications. For questions about product details, please use the 'Contact Customer Service' form on the right.
Connector design	Male cable connector
Cable length	2 m (Standard 2 m and 5 m. Other lengths are available on request.)
Version	Connector pin straight
Connector locking system	snap-in
Termination	moulded on the cable
Degree of protection	IP67
Connection cross-section	0.25 mm² / AWG 24
Temperature range from/to	-25 °C / 70 °C
Mechanical operation	> 500 Mating cycles
Weight (g)	251.88
Customs tariff number	85444290
Country of Origin	DE

Electrical parameters

Rated voltage	60 V
Rated impulse voltage	800 V
Rated current	2.0 A
Insulation resistance	≥ 10^{10} Ω
Pollution degree	2
Overvoltage category	II
Insulating material group	II
EMC compliance	unshielded

Material

Housing material	PUR
Contact body material	PA (UL94 V-0) black
Contact material	CuZn (brass)
Contact plating	Au (gold)
REACH SVHC	CAS 7439-92-1 (Lead)
SCIP number	a062c16d-7ace-45f1-b827-7795f17cb7a8

Cable data - Structure of the cable

Cable diameter	6.5 mm
Cross section	12 x 0.25 mm²
Sheath material	PUR
Single-lead insulation	PP9Y halogen-free
Single-lead structure	14 x 0.15 mm
Cable color	black

Cable data - Electrical properties

Conductor resistance	79 Ω/Km (20°C)

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Cable data - Mechanical properties

Bending radius, fixed cable	≥ 5 x Ø
Bending radius, moving cable	≥ 10 x Ø
Bending cycles	> 2 million
Permitted acceleration	5 m/s²
Travel distance, horizontal	5 m/s² -> 5 m
Travel distance, vertical	5 m/s² -> 2 m
Travel speed	≤ 200 m/min (5 m horizontal distance)

Cable data - Thermal properties

Temperature range cable in move from/to	-25 °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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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".