**Product data sheet**

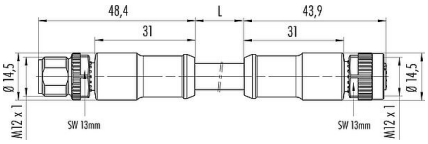
# Automation technology - Sensors and actuators

| | |
|---|---|
| Product description | **M12 Connecting cable male cable connector - female cable connector, Contacts: 4, unshielded, moulded on the cable, IP68, PUR, black, 4 x 1.50 mm², 2 m** |
| Area | **M12-A** |
| Coding | **A-coded** |
| Series | **765** |
| Part no. | **77 0606 0605 50704-0200** |

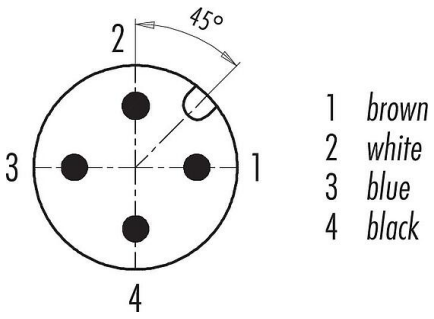
## Illustration (may vary)



## Scale drawing




## Contact arrangement (Plug-in side)




## 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 0606 0605 50704-0200 |
| Connector design | Connecting cable male cable connector - female cable connector |
| Type standard | DIN EN 61076-2-101 |
| Coding | A-coded |
| Cable length | 2 m (Standard 1 m and 2 m. Other lengths are available on request.) |
| Version | Double ended cordsets |

**Product data sheet**

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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 | -25 °C / 85 °C |
| Mechanical operation | > 100 Mating cycles |
| Weight (g) | 347.98 |
| Customs tariff number | 85444290 |
| Country of Origin | DE |

## Electrical parameters

| | |
|---|---|
| Rated voltage | 250 V |
| Rated impulse voltage | 2500 V |
| Rated current | 8.0 A |
| Insulation resistance | ≥ $10^{10}$ Ω |
| Pollution degree | 3 |
| Overvoltage category | II |
| Insulating material group | I |
| EMC compliance | unshielded |

## Material

| | |
|---|---|
| Housing material | PUR |
| Contact body material | PUR |
| Contact material | CuZn (brass) / CuSn (bronze) |
| Contact plating | Au (gold) |
| Locking material | Zinc die-cast nickel-plated |
| REACH SVHC | CAS 7439-92-1 (Lead) |
| SCIP number | d405a673-c8f7-4e9e-aca7-420459da9595 |

## Cable data - Structure of the cable

| | |
|---|---|
| Cable diameter | 8.0 mm |
| Cross section | 4 x 1.50 mm² |
| Sheath material | PUR |
| Single-lead insulation | PP9Y halogen-free |
| Single-lead structure | 43 x 0.10 mm |
| Cable color | black |

## Cable data - Electrical properties

| | |
|---|---|
| Conductor resistance | 13.3 Ω/Km (20°C) |

## Cable data - Mechanical properties

| | |
|---|---|
| Bending radius, fixed cable | ≥ 5 x Ø |
| Bending radius, moving cable | ≥ 10 x Ø |

**Product data sheet**

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| | |
|---|---|
| Bending cycles | > 5 million |
| Permitted acceleration | ≥ 5 m/s² |
| Travel distance, horizontal | 20 m |
| Travel speed | ≤ 200 m/min |

## 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 |

## 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 |

**Product data sheet**

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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.

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).