

### M12 Power male 0° K-cod. with cable

PUR 5x1.5 bk UL/CSA+drag ch. 20m

Art.No.: 7000-P3201-P052000

Weight: 2.621

Country of origin: DE

Model designation: MSWAKL0-UP05\_20.0

### Advantages of our M12 power connectors:

Our M12 power connectors are ideal for supplying power to your industrial applications and are specially optimised for harsh environments.

The K-coded connectors are available in 5-pin versions and offer a current carrying capacity of 12A per pin at 630V AC. They are ideal for supplying power to linear motors, stepper motors, frequency converters and control and lighting systems.

All Murrelektronik connectors are 100% tested during the manufacturing process to ensure the highest quality and reliability. The contacts are gold-plated, which ensures excellent conductivity. Thanks to the high IP67 protection rating and the integrated protective conduit connection, they are ideal for demanding industrial environments. They are also vibration-resistant - this is ensured by the integrated vibration protection.

The M12 power connectors are designed in accordance with the IEC 61076-2-111 standard and UL-approved in accordance with 2237 (PVVA - E492831). Our connectors are resistant to oils and cooling lubricants. However, resistance to aggressive media should be tested for each specific application.

Different cable lengths are available [on request](#). Are you missing technical information? Please use our technical [dictionary](#), where you will find explanations of coding and other technical details.

### Product details:Power

Male straight

M12, 5-pole

K-coded

with cable sleeves

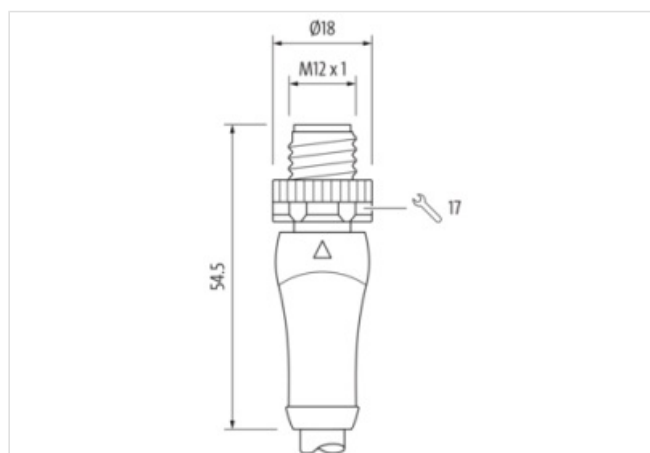
Plastic housings with good resistance against chemicals and oils.

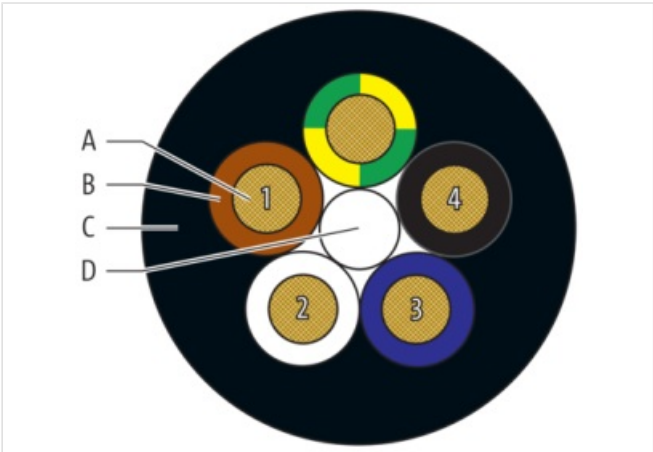
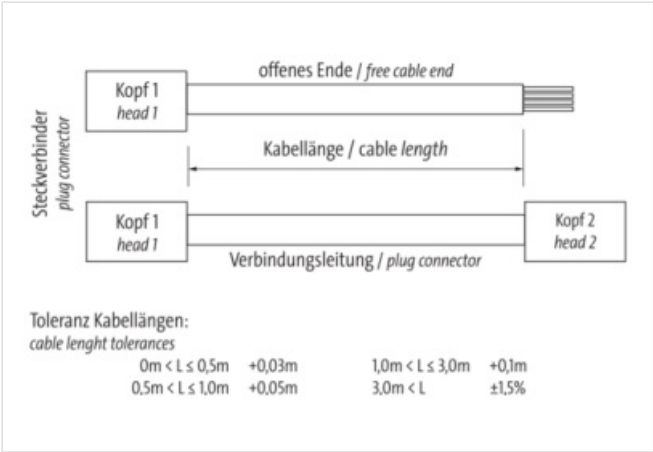
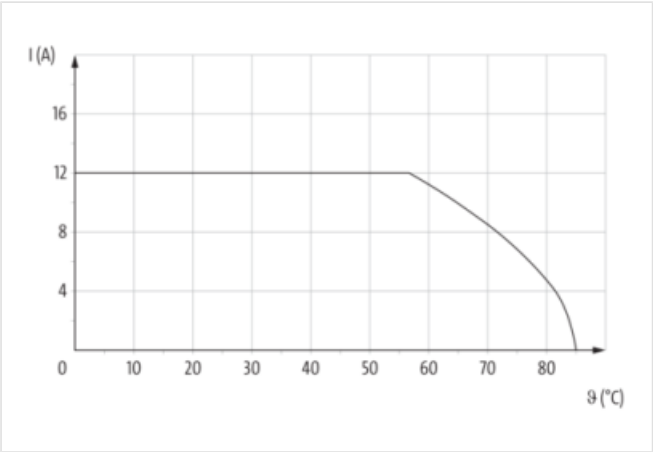
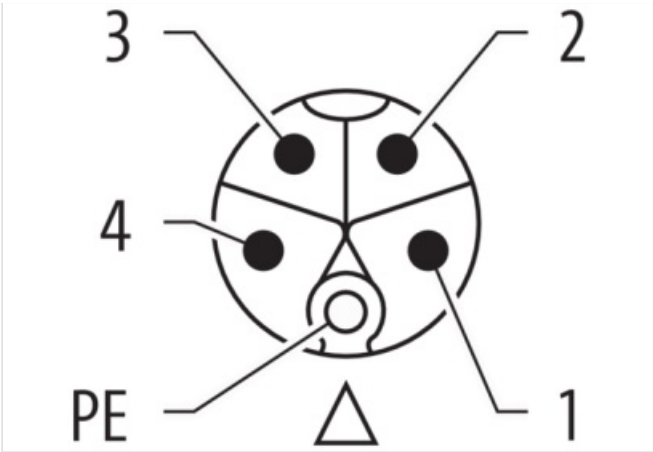
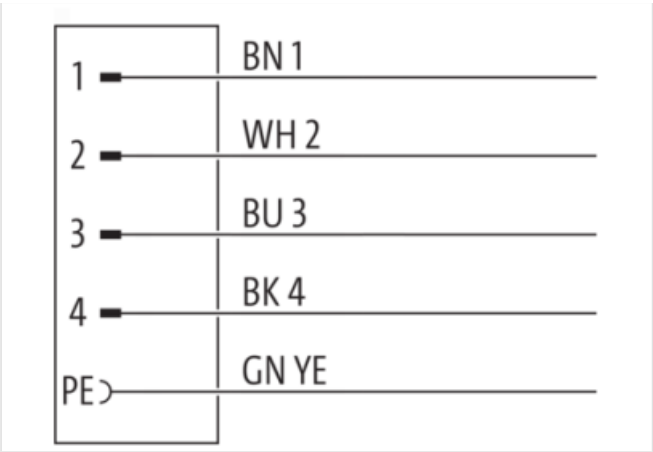
The resistance to aggressive media should be individually tested for your application. Further details on request.

Further cable lengths on request.

### Link to Product

#### Illustration





Product may differ from Image



| Header              |                   |
|---------------------|-------------------|
| Material short text | MSWAKL0-UP05_20.0 |
| Cable length        | 20,00 m           |
| Side 1              |                   |

|                                           |                   |
|-------------------------------------------|-------------------|
| Family construction form                  | M12P              |
| No. of poles                              | 5                 |
| Coding                                    | K                 |
| Gender                                    | male              |
| Mounting method                           | inserted, screwed |
| Thread                                    | M12 x 1           |
| Tightening torque                         | 0.6 Nm            |
| Width across flats                        | SW17              |
| Cable outlet                              | straight          |
| suitable for corrugated tube (internal Ø) | 12 mm             |
| Material                                  | PUR               |
| Material contact                          | Copper alloy      |
| Coating contact                           | gold plated       |
| Degree of protection (EN IEC 60529)       | IP65, IP67, IP69K |

**Side 2**

|                           |                |
|---------------------------|----------------|
| Family construction form  | Free cable end |
| Stripping length (jacket) | 100 mm         |

**Commercial data**

|                       |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| URL Webshop           | <a href="https://shop.murrelektronik.com/7000-P3201-P052000">https://shop.murrelektronik.com/7000-P3201-P052000</a> |
| GTIN                  | 4048879820523                                                                                                       |
| ECLASS-6.0            | 27279218                                                                                                            |
| ECLASS-6.1            | 27279218                                                                                                            |
| ECLASS-7.0            | 27279218                                                                                                            |
| ECLASS-7.1            | 27279218                                                                                                            |
| ECLASS-8.0            | 27279218                                                                                                            |
| ECLASS-8.1            | 27279218                                                                                                            |
| ECLASS-9.0            | 27060327                                                                                                            |
| ECLASS-9.1            | 27060311                                                                                                            |
| ECLASS-10.0.1         | 27060311                                                                                                            |
| ECLASS-10.1           | 27060311                                                                                                            |
| ECLASS-11.0           | 27060311                                                                                                            |
| ECLASS-11.1           | 27060311                                                                                                            |
| ECLASS-12.0           | 27060327                                                                                                            |
| ECLASS-13.0           | 27060311                                                                                                            |
| ECLASS-14.0           | 27060311                                                                                                            |
| ETIM-5.0              | EC001855                                                                                                            |
| ETIM-6.0              | EC001855                                                                                                            |
| ETIM-7.0              | EC001855                                                                                                            |
| ETIM-8.0              | EC001855                                                                                                            |
| customs tariff number | 85444290                                                                                                            |
| EAN                   | 4048879820523                                                                                                       |
| Packaging unit        | 1                                                                                                                   |

**Electrical data | Supply**

|                                    |       |
|------------------------------------|-------|
| Operating voltage AC max.          | 600 V |
| Current operating per contact max. | 12 A  |

**Diagnostics**

|                       |    |
|-----------------------|----|
| Status indication LED | no |
|-----------------------|----|

**Installation | Connection**

|                    |      |
|--------------------|------|
| Width across flats | SW17 |
|--------------------|------|

**Device protection | Electrical**

|                                     |                   |
|-------------------------------------|-------------------|
| Degree of protection (EN IEC 60529) | IP65, IP67, IP69K |
|-------------------------------------|-------------------|

|                                                 |                                                                                                                                                       |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional condition protection degree          | inserted, screwed                                                                                                                                     |
| Pollution Degree                                | 3                                                                                                                                                     |
| Rated surge voltage                             | 6 kV                                                                                                                                                  |
| Material group (IEC 60664-1)                    | I                                                                                                                                                     |
| <b>Mechanical data   Material data</b>          |                                                                                                                                                       |
| Material housing                                | PUR                                                                                                                                                   |
| Material screw connection                       | Brass                                                                                                                                                 |
| Coating of fitting                              | nickel plated                                                                                                                                         |
| <b>Mechanical data   Mounting data</b>          |                                                                                                                                                       |
| Mounting method                                 | inserted, screwed, Shaking protection                                                                                                                 |
| <b>Environmental characteristics   Climatic</b> |                                                                                                                                                       |
| Operating temperature min.                      | -30 °C                                                                                                                                                |
| Operating temperature max.                      | 85 °C                                                                                                                                                 |
| Additional condition temperature range          | depending on cable quality                                                                                                                            |
| <b>Important installation notes</b>             |                                                                                                                                                       |
| Note on bending radius                          | <b>Attention:</b> Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces. |
| Note on strain relief                           | Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.                                                   |
| <b>Conformity</b>                               |                                                                                                                                                       |
| Product standard                                | EN IEC 61076-2-111                                                                                                                                    |
| <b>Installation   Cable</b>                     |                                                                                                                                                       |
| Cable identification                            | P05                                                                                                                                                   |
| Cable Type                                      | 3                                                                                                                                                     |
| Function cable                                  | Power                                                                                                                                                 |
| Amount stranding                                | 1                                                                                                                                                     |
| Stranding                                       | 5 wires around core filler twisted                                                                                                                    |
| Filler                                          | yes                                                                                                                                                   |
| Wire arrangement                                | green-yellow, Black, blue 3, white 2, brown 1                                                                                                         |
| Cable weight                                    | 118 g/m                                                                                                                                               |
| Material wire insulation                        | PP                                                                                                                                                    |
| Amount wires                                    | 5                                                                                                                                                     |
| Outer diameter insulation                       | 2.3 mm                                                                                                                                                |
| Outer diameter tolerance core insulation        | ± 0.1 mm                                                                                                                                              |
| Shore hardness wire insulation                  | 60 ± 5 Shore D                                                                                                                                        |
| Ingredient freeness wire insulation             | CFC-free, cadmium-free, silicone-free, halogen-free, lead-free                                                                                        |
| Printing color of wire insulation               | white (isolation blue), white (isolation brown), white (isolation black), black (white isolation)                                                     |
| Amount strands (wire)                           | 84                                                                                                                                                    |
| Diameter of single wires                        | 0.15 mm                                                                                                                                               |
| Conductor crosssection (wire)                   | 1.5 mm <sup>2</sup>                                                                                                                                   |
| Material conductor wire                         | Stranded copper wire, bare                                                                                                                            |
| Conductor type (wire)                           | strand class 6                                                                                                                                        |
| Outer-diameter (jacket)                         | 8.2 mm                                                                                                                                                |
| Tolerance outer diameter (sheath)               | ± 5 %                                                                                                                                                 |
| Material jacket                                 | PUR                                                                                                                                                   |
| Shore hardness jacket                           | 90 ± 5 Shore A                                                                                                                                        |
| Freedom from ingredients (jacket)               | CFC-free, cadmium-free, silicone-free, halogen-free, lead-free                                                                                        |
| Material property (jacket)                      | matte, good machinability, abrasion-resistant, low adhesion                                                                                           |
| Conductor resistance (wire)                     | 13.3 Ω/km @ 20 °C                                                                                                                                     |
| Nominal voltage AC max.                         | 1,000 V                                                                                                                                               |
| Withstand voltage (wire - wire)                 | 10 kV @ 60 s                                                                                                                                          |
| Withstand voltage (wire - jacket)               | 10 kV @ 60 s                                                                                                                                          |
| Current load capacity (standard)                | to DIN VDE 0298-4                                                                                                                                     |

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| Current load capacity min. wire      | 13.5 A                            |
| Min. operating temperature (static)  | -50 °C                            |
| Max. operating temperature (static)  | 80 °C / 90 °C @ 10000 h Operation |
| Operating temperature min. (dynamic) | -25 °C                            |
| Operating temperature max. (dynamic) | 80 °C / 90 °C @ 10000 h Operation |
| Bending radius (fixed)               | 5 × Outer diameter                |
| Bending radius (dynamic)             | 10 × Outer diameter               |
| No. of bending cycles (C-track)      | 5 Mio. @ 25 °C                    |
| Traversing distance (C-track)        | 5 m @ 25 °C                       |
| Travel speed (C-track)               | 3.3 m/s @ 25 °C                   |
| Acceleration (C-track)               | 5 m/s <sup>2</sup> @ 25 °C        |
| No. of torsion cycles                | 5 Mio.                            |
| Torsion stress                       | 180 °C                            |
| Torsion speed                        | 35 cycles/min                     |