

## M23 SIGNAL CABLE

Specification: M6FX8002-2CA31-1BC0

Art.No.: 7000-SS261-8111200

Weight: 1.649

Country of origin: DE

Model designation: M6FX8002-2CA31-1BC0

### Advantages of our connectors:

Our connectors are versatile and specially optimised for industrial environments. All connectors are 100% tested during the manufacturing process to ensure the highest quality and reliability.

The contacts are gold-plated, which ensures optimum conductivity. Thanks to the high degree of protection, the connectors are ideal for demanding industrial environments. They are also vibration-resistant - this is ensured by the union nut with vibration protection.

Our connectors are resistant to oils and cooling lubricants, but resistance to aggressive media should be tested for each specific application. Different cable lengths available [on request](#)

If you are missing technical information? Please feel free to use our [dictionary](#) to find more technical details.

### Product details:

Signal cable for SINAMICS S120 and motors with connection M23

Female straight – female 90°

M23, 17-pole – SUB-D25

shielded

without cable sleeves

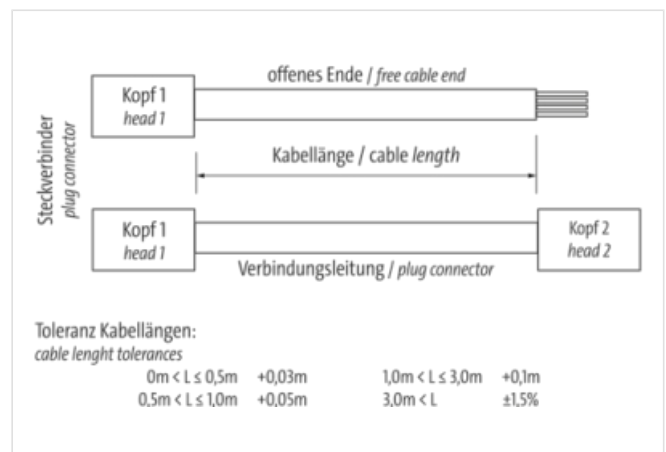
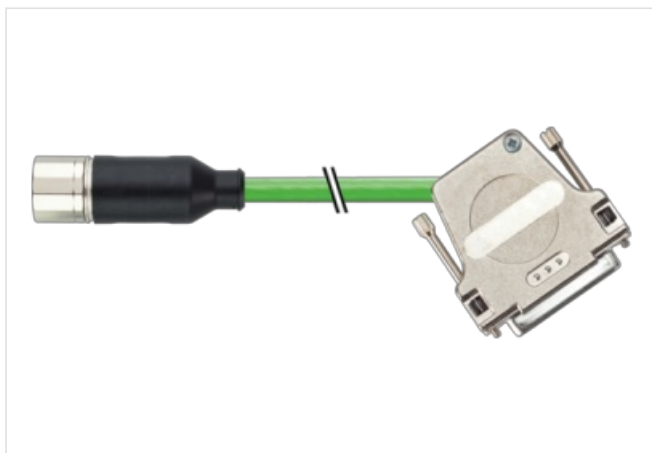
Further cable lengths on request.

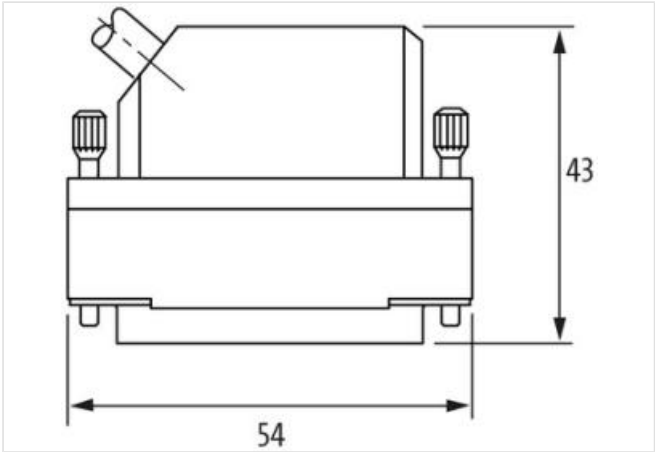
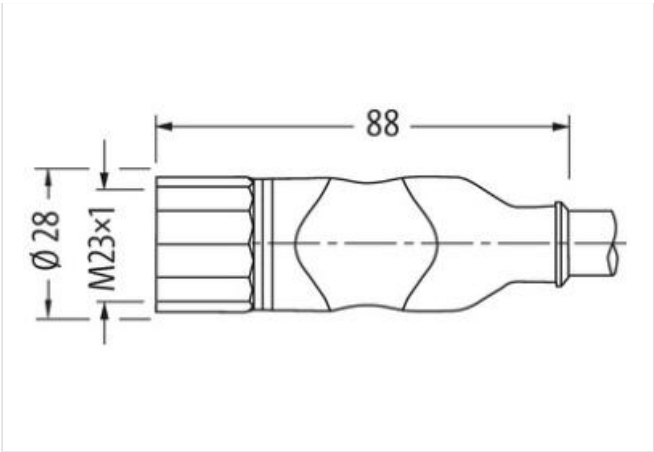
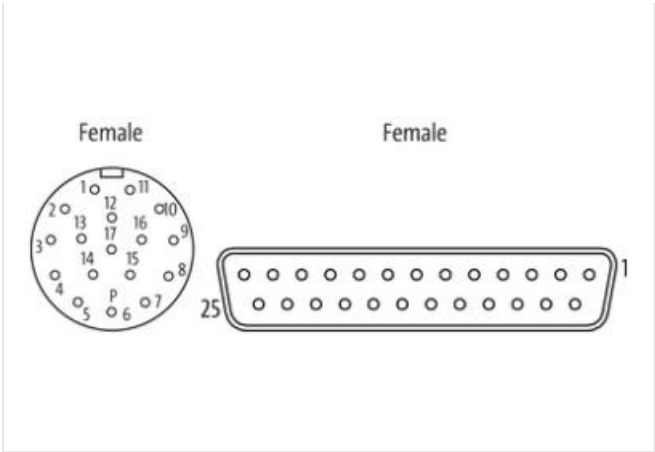
Plastic housings with good resistance against chemicals and oils.

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

### [Link to Product](#)

#### Illustration





Product may differ from Image

Cable length 12 m

Side 1

Tightening torque 2 Nm  
Family construction form M23  
Thread M23 x 1  
suitable for corrugated tube (internal Ø) 16 mm  
Width across flats SW27  
Degree of protection (EN IEC 60529) IP65, IP67

Side 2

Family construction form SUB-D25  
Degree of protection (EN IEC 60529) IP20

Commercial data

ECLASS-6.0 27279218  
ECLASS-6.1 27060307  
ECLASS-7.0 27060307  
ECLASS-8.0 27060307  
ECLASS-9.0 27060307  
ECLASS-10.1 27060307  
ECLASS-11.1 27060307  
ECLASS-12.0 27060307  
ETIM-5.0 EC001855  
customs tariff number 85444290

|                       |               |
|-----------------------|---------------|
| customs tariff number | 85444290      |
| EAN                   | 4048879586894 |
| EAN                   | 4048879586894 |
| Packaging unit        | 1             |
| Packaging unit        | 1             |

**Electrical data | Supply**

|                           |      |
|---------------------------|------|
| Operating voltage AC max. | 30 V |
| Operating voltage DC max. | 30 V |

**Device protection | Electrical**

|                              |        |
|------------------------------|--------|
| Pollution Degree             | 3      |
| Rated surge voltage          | 0,5 kV |
| Material group (IEC 60664-1) | I      |

**Mechanical data | Material data**

|                  |               |
|------------------|---------------|
| Material housing | PUR           |
| Coating locking  | nickel plated |
| Locking material | Brass         |

**Mechanical data | Mounting data**

|                 |                                       |
|-----------------|---------------------------------------|
| Mounting method | inserted, screwed, Shaking protection |
|-----------------|---------------------------------------|

**Environmental characteristics | Climatic**

|                                        |                            |
|----------------------------------------|----------------------------|
| Operating temperature min.             | -25 °C                     |
| Operating temperature max.             | 85 °C                      |
| Additional condition temperature range | depending on cable quality |

**Important installation notes**

|                        |                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note on strain relief  | Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.                                                   |
| 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. |

**Installation | Cable**

|                                   |                                                                                                                                                         |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| wire arrangement                  | brown-red, brown-blue, green-yellow, brown-yellow, brown-gray, black-green, red-green, red, orange, gray, blue, yellow-white, black-white, brown, black |
| Cable identification              | 811                                                                                                                                                     |
| Function cable                    | Hybrid                                                                                                                                                  |
| Jacket Color                      | green                                                                                                                                                   |
| Stranding cable total             | 6 Stranded joints around Core filler twisted                                                                                                            |
| Amount stranding                  | 2                                                                                                                                                       |
| Stranding                         | 4 wires twisted                                                                                                                                         |
| Amount stranding (type 2)         | 1                                                                                                                                                       |
| Stranding (type 2)                | 2 wires twisted                                                                                                                                         |
| Amount stranding (type 3)         | 3                                                                                                                                                       |
| Stranding (type 3)                | 2 wires with Filler twisted                                                                                                                             |
| Cable shielding (type)            | copper braiding, bare                                                                                                                                   |
| Cable shielding (coverage)        | 80 %                                                                                                                                                    |
| Banding                           | Fleece, Foil                                                                                                                                            |
| Filler                            | yes                                                                                                                                                     |
| Drain wire (cross-section)        | 10 mm²                                                                                                                                                  |
| wire arrangement                  | brown-red, brown-blue, green-yellow, brown-yellow, brown-gray, black-green, red-green, red, orange, gray, blue, yellow-white, black-white, brown, black |
| Cable weight                      | 134,2 g/m                                                                                                                                               |
| Material jacket                   | PUR                                                                                                                                                     |
| Freedom from ingredients (jacket) | lead-free, CFC-free, halogen-free, silicone-free                                                                                                        |
| Outer-diameter (jacket)           | 9,5 mm                                                                                                                                                  |
| Tolerance outer diameter (sheath) | ± 5 %                                                                                                                                                   |
| Material wire insulation          | PP                                                                                                                                                      |

|                                                   |                                                      |
|---------------------------------------------------|------------------------------------------------------|
| Amount wires                                      | 10                                                   |
| Outer diameter insulation                         | 0,85 mm                                              |
| Shore hardness wire insulation                    | 65 ± 5 Shore D                                       |
| Amount strands (wire)                             | 7                                                    |
| Diameter of single wires                          | 0,16 mm                                              |
| Conductor crosssection (wire)                     | 0,14 mm <sup>2</sup>                                 |
| Drain wire (cross-section)                        | 10 mm <sup>2</sup>                                   |
| Material conductor wire                           | Stranded copper wire, bare                           |
| Material wire insulation (Data)                   | PP                                                   |
| Outer diameter wire insulation (Data)             | 1 mm                                                 |
| Shore hardness wire insulation (Data)             | 65 ± 5 Shore D                                       |
| Amount wires (Data)                               | 4                                                    |
| Amount strands wire (Data)                        | 7                                                    |
| Diameter of single wires (Data)                   | 0,127 mm                                             |
| Conductor crosssection wire (Data)                | 0,22 mm <sup>2</sup>                                 |
| Material conductor wire (Data)                    | copper stranded wire, tinned                         |
| Material wire insulation (Power)                  | PP                                                   |
| Outer diameter wire insulation (Power)            | 1,3 mm                                               |
| Shore hardness wire insulation (Power)            | 65 Shore D±5 Shore D                                 |
| Amount wires (Power)                              | 2                                                    |
| Diameter of single wires (Power)                  | 0,18 mm                                              |
| Wire conductor cross section (Power)              | 0,5 mm <sup>2</sup>                                  |
| Material conductor wire (Power)                   | copper stranded wire, tinned                         |
| Nominal voltage AC max.                           | 30 V                                                 |
| Current load capacity (standard)                  | to DIN VDE 0298-4                                    |
| Current load capacity min. wire                   | 2,4 A                                                |
| Current load capacity min. Wire (Data)            | 2,4 A                                                |
| Current carrying capacity min. wire (Power)       | 9 A                                                  |
| Characteristic impedance                          | 80 Ω ± 5 % MHz                                       |
| Electrical resistance line constant wire          | 148,9 Ω/km @ 20 °C                                   |
| Electrical resistance coating wire (Power)        | 41 Ω/km @20 °C                                       |
| Electrical resistance coating wire (Data)         | 93,3 Ω/km @ 20 °C                                    |
| AC withstand voltage (wire - wire)                | 0,5 kV @ 60 s                                        |
| Electrical capacity line constant (wire - shield) | 8000 pF/km                                           |
| Power frequency withstand voltage (wire - jacket) | 0,5 kV @ 60 s                                        |
| AC withstand voltage (wire - shield)              | 0,5 kV @ 60 s                                        |
| Isolation resistance                              | 1000 MΩ × km                                         |
| Operating temperature min. (dynamic)              | -25 °C                                               |
| Operating temperature max. (dynamic)              | 80 °C                                                |
| Flame resistance                                  | IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  |
| chemical resistance                               | Good, application-related testing                    |
| Gasoline resistance                               | Good, application-related testing                    |
| Oil resistance                                    | DIN EN 60811-404   Good, application-related testing |
| Bending radius (installation)                     | x Outer diameter                                     |
| Bending radius (fixed)                            | 4 x Outer diameter @ 25 °C                           |
| Bending radius (dynamic)                          | 6 x Outer diameter                                   |
| No. of bending cycles (C-track)                   | 10 Mio. @ 25 °C                                      |
| Traversing distance (C-track)                     | 300 m @ 25 °C   horizontal                           |
| Travel speed (C-track)                            | 3 m/s @ 25 °C                                        |
| Torsion stress                                    | ± 30 °/m @ 25 °C                                     |