MURR ELEKTRONIK
stay connected

**M23 servo cable**

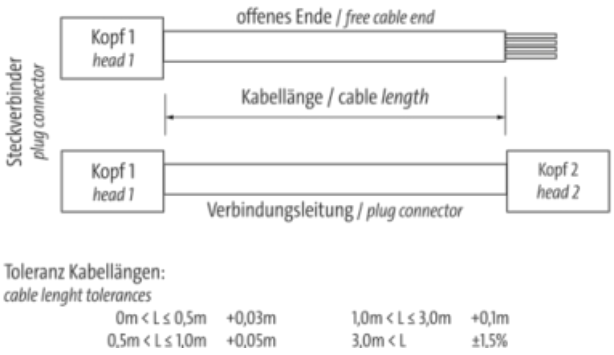
specification: 6FX5002-5DA05-1AF5

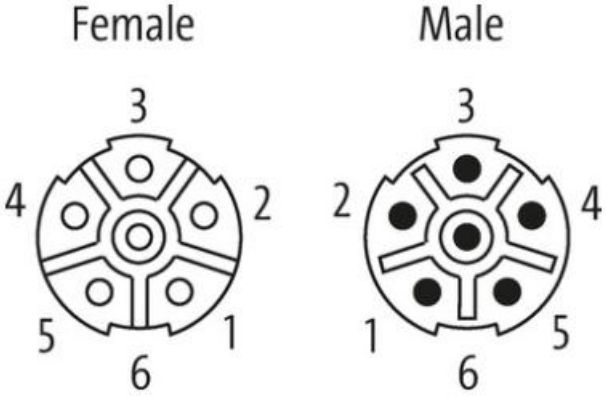
Art.No.: 7000-PS101-8610550
Weight: 1.313
Country of origin: DE
Model designation: M6FX5002-5DA05-1AF5

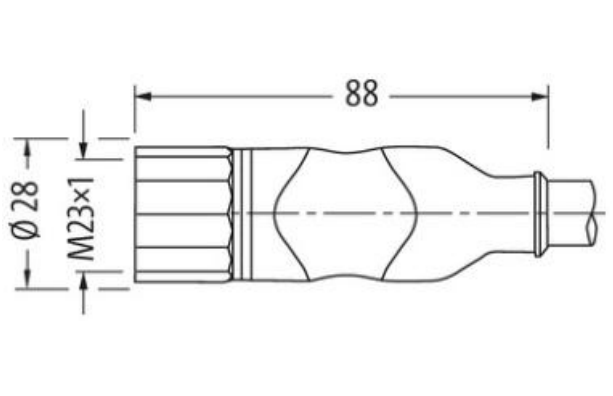
Power cable with brake wires for SINAMICS S120 and motors with M23 connection and holding brake
Female straight – male straight
M23 – M23, 6-pole
shielded
without cable sleeves
Further cable lengths on request.
Plastic housings with good resistance against chemicals and oils.
The resistance to aggressive media should be individually tested for your application. Further details on request.
Power cores: 12 A (1.5 mm²), 15 A (2.5 mm²); brake cores: 5 A (1.5 mm²)

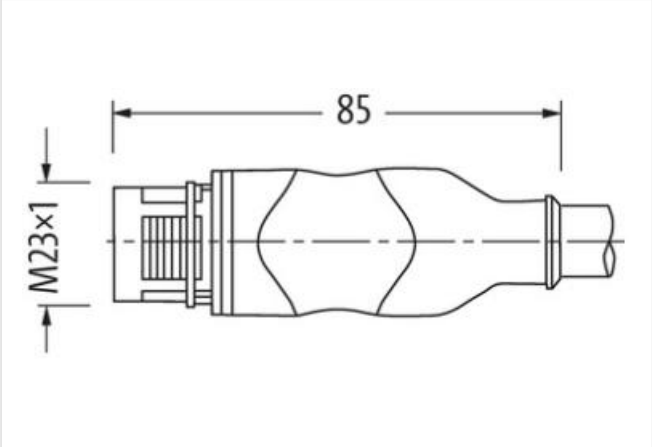
## Link to Product

**Illustration**






Product may differ from Image

| | |
|---|---|
| Cable length | 5,5 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 |
| **Side 2** | |
| Family construction form | M23 |
| suitable for corrugated tube (internal Ø) | 23 mm |
| **Commercial data** | |
| ECLASS-6.0 | 27279218 |
| ECLASS-6.1 | 27279218 |
| ECLASS-7.0 | 27279218 |
| ECLASS-8.0 | 27279218 |
| ECLASS-9.0 | 27060327 |
| ECLASS-10.1 | 27060311 |
| ECLASS-11.1 | 27060311 |
| ECLASS-12.0 | 27060327 |
| ETIM-5.0 | EC000830 |
| customs tariff number | 85444290 |
| EAN | 4048879689236 |
| Packaging unit | 1 |
| **Electrical data \| Supply** | |
| Operating voltage AC per power contact max. | 600 V |
| Operating voltage AC per signal contact max. | 250 V |
| Operating voltage DC per power contact max. | 600 V |
| Operating voltage DC per signal contact max. | 250 V |
| **Device protection \| Electrical** | |
| Degree of protection (EN IEC 60529) | IP65, IP67 |
| Additional condition protection degree | inserted, screwed |
| Pollution Degree | 3 |
| Rated surge voltage power contacts | 4 kV |
| Rated surge voltage signal contacts | 2 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 | **Attention:** Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces. |
| **Installation \| Cable** | |
| wire arrangement | black, white, (black W/L3/D/L-, black U/L1/C/L+, black V/L2, green-yellow) |
| Cable identification | 861 |
| Function cable | Hybrid, Signal, Power |
| Jacket Color | orange |
| Type of Certificate | cURus |
| Amount stranding | 1 |
| Stranding | 2 wires with Filler twisted |
| Amount stranding (type 2) | 1 |
| Stranding (type 2) | 4 wires with Filler around Stranding combination twisted |
| Cable shielding (type) | copper braid, tinned |
| Cable shielding (coverage) | 85 % |
| Pair shielding (type) | copper braid, tinned |
| Banding | Fiber tape, Fleece, Foil |
| Filler | yes |
| wire arrangement | black, white, (black W/L3/D/L-, black U/L1/C/L+, black V/L2, green-yellow) |
| Cable weigth | 203,5 g/m |
| Material jacket | PVC |
| Freedom from ingredients (jacket) | lead-free, CFC-free, silicone-free |
| Outer-diameter (jacket) | 10,4 mm |
| Tolerance outer diameter (sheath) | ± 5 % |
| Material wire insulation | TPM |
| Amount wires | 2 |
| Outer diameter insulation | 2,4 mm |
| Outer diameter tolerance core insulation | ± 5 % |
| Ingredient freeness wire insulation | lead-free, CFC-free, silicone-free |
| Amount strands (wire) | 30 |
| Diameter of single wires | 0,25 mm |
| Conductor crosssection (wire) | 1,5 mm² |
| Material conductor wire | Stranded copper wire, bare |
| Conductor type (wire) | Strand class 5 |
| Outer diameter wire insulation (Power) | 2,4 mm |
| Tolerance outer diameter wire insulation (Power) | ±5 % |
| Ingredient freeness wire insulation (Power) | lead-free, CFC-free, silicone-free |
| Printing colour wire insulation (Power) | white (isolation black) |
| Amount wires (Power) | 4 |
| Amount strands wire (Power) | 30 |
| Diameter of single wires (Power) | 0,25 mm |
| Wire conductor cross section (Power) | 1,5 mm² |

| | |
|---|---|
| Material conductor wire (Power) | Stranded copper wire, bare |
| Conductor type wire (Power) | Strand class 5 |
| Max. rated voltage (conductor - conductor) | 1000 V |
| Max. rated voltage (conductor - ground) | 600 V |
| Current load capacity (standard) | to DIN VDE 0298-4 |
| Current load capacity min. wire | 12,6 A |
| Current carrying capacity min. wire (Power) | 12,6 A |
| Electrical resistance line constant wire | 13,7 Ω/km @ 20 °C |
| Electrical resistance coating wire (Power) | 13,7 Ω/km @20 °C |
| AC withstand voltage (wire - wire) | 2 kV @ 60 s |
| Electrical capacity line constant (wire - wire) | 100000 pF/km |
| Electrical capacity line constant (wire - shield) | 160000 pF/km |
| Power frequency withstand voltage (wire - jacket) | 2 kV @ 60 s |
| AC withstand voltage (wire - shield) | 2 kV @ 60 s |
| Isolation resistance | 5000 MΩ × km |
| Electrical capacity line constant (wire - shield) (power) | 250000 pF/km |
| Electrical capacity line constant (wire - wire) (power) | 150000 pF/km |
| AC withstand voltage power (wire - shield) | 4 kV @ 60 s |
| Power frequency withstand voltage power (wire - jacket) | 4 kV @ 60 s |
| AC withstand voltage power (wire - wire) | 4 kV @ 60 s |
| Min. operating temperature (static) | -25 °C |
| Max. operating temperature (fixed) | 80 °C |
| Operating temperature min. (dynamic) | -5 °C |
| Operating temperature max. (dynamic) | 60 °C |
| Flame resistance | UL 1581 § 1090 \| UL 1581 § 1100 FT2 \| IEC 60332-2-2 |
| chemical resistance | Good, application-related testing |
| Gasoline resistance | Good, application-related testing |
| Oil resistance | DIN EN 60811-404 \| Good, application-related testing |
| Bending radius (fixed) | 5 x Outer diameter |
| Bending radius (dynamic) | 18 x Outer diameter |
| No. of bending cycles (C-track) | 0,1 Mio. @ 25 °C |
| Traversing distance (C-track) | 5 m @ 25 °C |
| Travel speed (C-track) | 0,5 m/s @ 25 °C |
| Torsion stress | ± 30 °/m |