

**M12 male 90° D-cod. / RJ45 0° shielded**

TPE 2x2x24AWG SF/UTP CAT5e bu UL/CSA. CM 10m

Art.No.: 7700-44761-S4U1000

Weight: 0.585 kg

Country of origin: DE

Model designation: MSRAL0-DC-TS4U\_10.0-ZS

Ethernet CAT5

Male 90° – male straight

M12 – RJ45, 4-pole

D-coded

Shielded

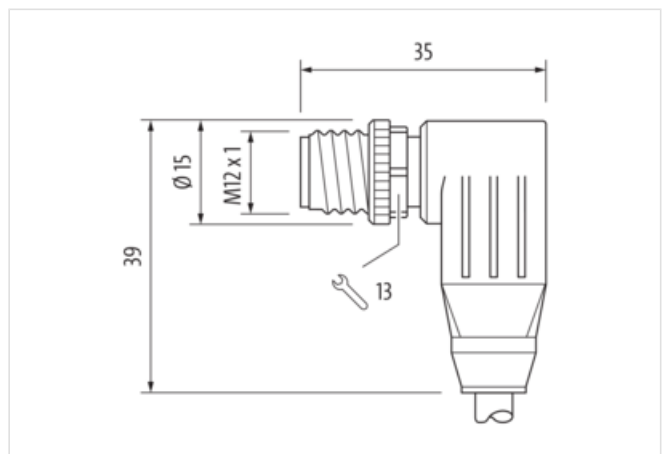
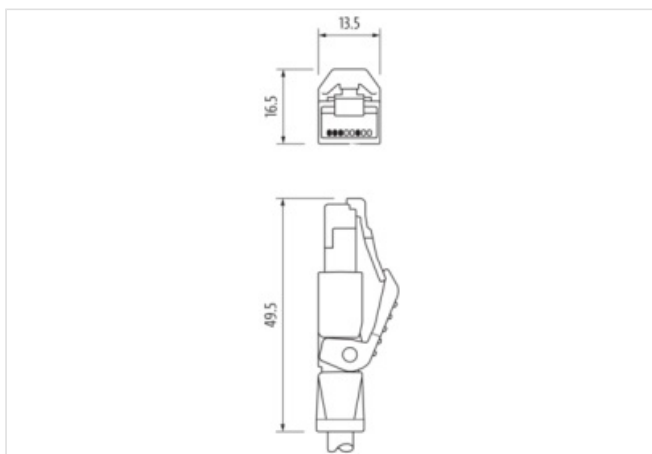
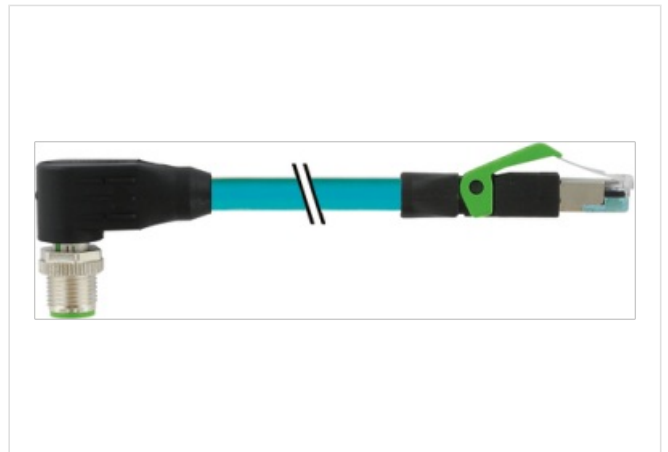
USA

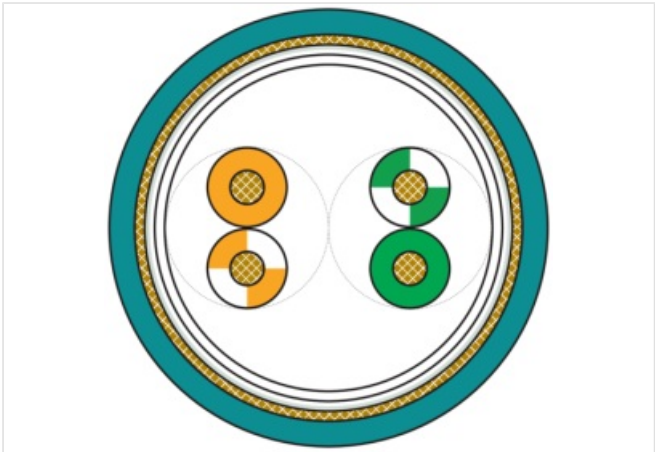
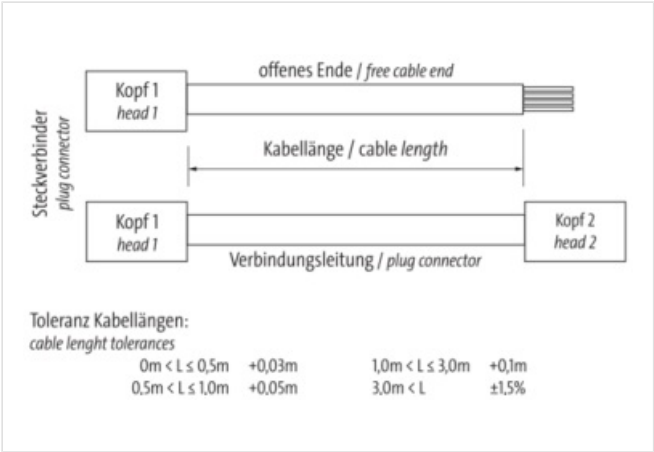
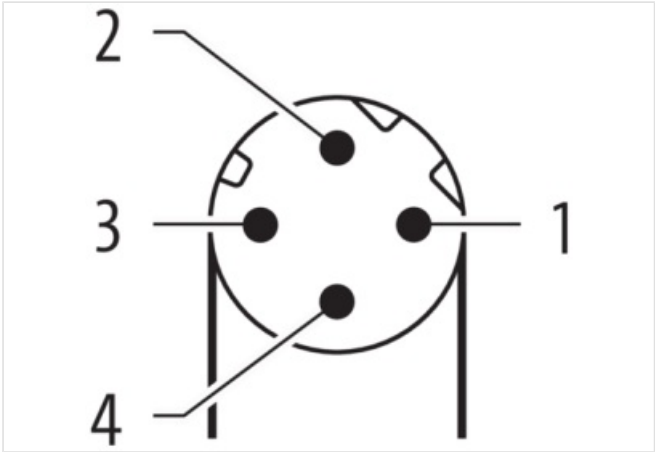
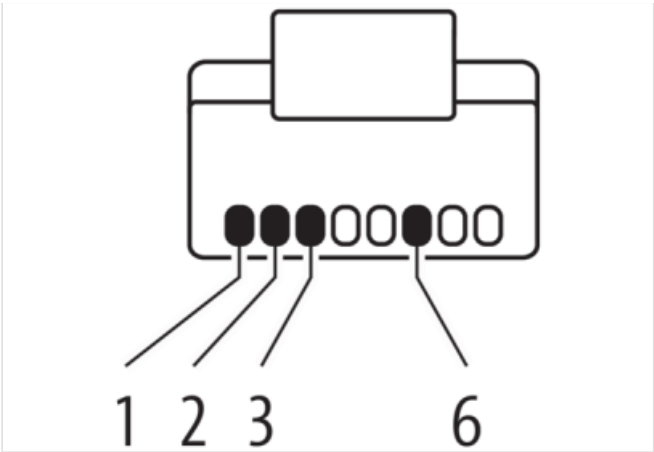
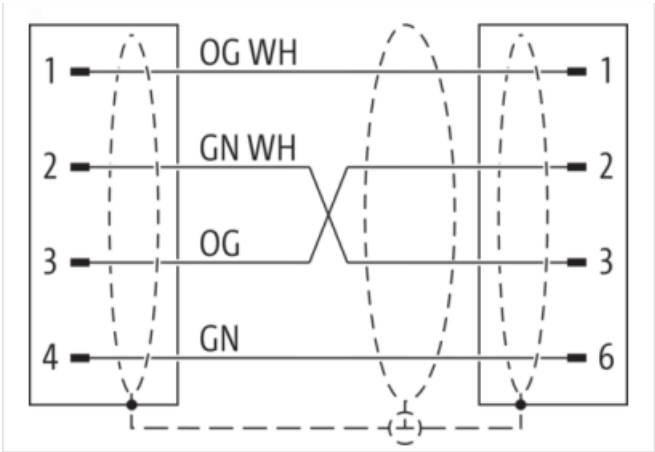
without cable sleeves

Further cable lengths on request.

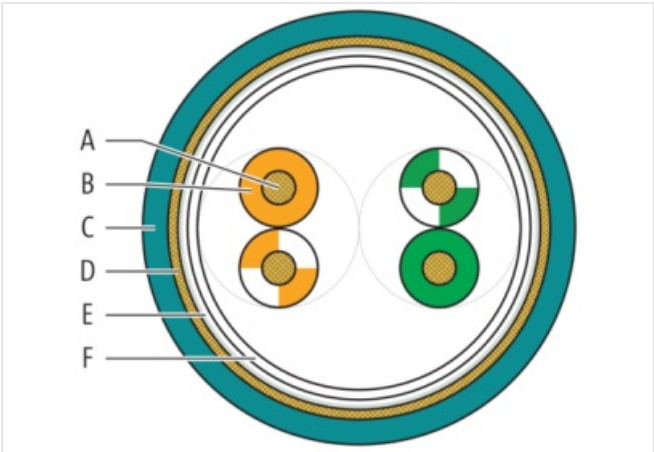
Plastic housings with good resistance against chemicals and oils.

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



Header

|                     |                        |
|---------------------|------------------------|
| Material short text | MSRAL0-DC-TS4U_10.0-ZS |
| Cable length        | 10,00 m                |

**Side 1**

|                                     |                   |
|-------------------------------------|-------------------|
| Family construction form            | M12               |
| No. of poles                        | 4                 |
| Coding                              | D                 |
| Mounting method                     | inserted, screwed |
| Threaded hole                       | M12 x 1           |
| Tightening torque                   | 0,6 Nm            |
| Width across flats                  | SW13              |
| Cable outlet                        | angled            |
| Degree of protection (EN IEC 60529) | IP67              |

**Side 2**

|                                     |           |
|-------------------------------------|-----------|
| Family construction form            | RJ45      |
| No. of poles                        | 4         |
| Mounting method                     | pluggable |
| Cable outlet                        | straight  |
| Degree of protection (EN IEC 60529) | IP20      |

**Commercial data**

|                       |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| URL Webshop           | <a href="https://shop.murrelektronik.com/7700-44761-S4U1000">https://shop.murrelektronik.com/7700-44761-S4U1000</a> |
| GTIN                  | 4048879651073                                                                                                       |
| ECLASS-6.0            | 27061801                                                                                                            |
| ECLASS-6.1            | 27060307                                                                                                            |
| ECLASS-7.0            | 27060307                                                                                                            |
| ECLASS-7.1            | 27060307                                                                                                            |
| ECLASS-8.0            | 27060307                                                                                                            |
| ECLASS-8.1            | 27060307                                                                                                            |
| ECLASS-9.0            | 27060307                                                                                                            |
| ECLASS-9.1            | 27060307                                                                                                            |
| ECLASS-10.0.1         | 27060307                                                                                                            |
| ECLASS-10.1           | 27060307                                                                                                            |
| ECLASS-11.0           | 27060307                                                                                                            |
| ECLASS-11.1           | 27060307                                                                                                            |
| ECLASS-12.0           | 27060307                                                                                                            |
| ECLASS-13.0           | 27060307                                                                                                            |
| ECLASS-14.0           | 27060307                                                                                                            |
| ETIM-5.0              | EC002599                                                                                                            |
| ETIM-6.0              | EC002599                                                                                                            |
| ETIM-7.0              | EC002599                                                                                                            |
| ETIM-8.0              | EC002599                                                                                                            |
| customs tariff number | 85444290                                                                                                            |
| EAN                   | 4048879651073                                                                                                       |
| Packaging unit        | 1                                                                                                                   |

**Electrical data | Supply**

|                                    |       |
|------------------------------------|-------|
| Operating voltage DC max.          | 60 V  |
| Current operating per contact max. | 1,5 A |

**Industrial Communication**

|                             |                                                  |
|-----------------------------|--------------------------------------------------|
| Data transmission rate max. | 100 Mbit/s                                       |
| Transfer parameters         | CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1) |

**Industrial communication | Ethernet functionality**

|        |             |
|--------|-------------|
| duplex | Full duplex |
|--------|-------------|

**Device protection | Electrical**

|                                        |                   |
|----------------------------------------|-------------------|
| Additional condition protection degree | inserted, screwed |
|----------------------------------------|-------------------|

|                                                 |                                                                                                                                                       |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pollution Degree                                | 3                                                                                                                                                     |
| Rated surge voltage                             | 1 kV                                                                                                                                                  |
| Material group (IEC 60664-1)                    | I                                                                                                                                                     |
| <b>Mechanical data</b>                          |                                                                                                                                                       |
| Contour for corrugated hose                     | without                                                                                                                                               |
| <b>Mechanical data   Material data</b>          |                                                                                                                                                       |
| Locking material screw                          | Zinc die-casting                                                                                                                                      |
| Locking screw coating                           | Nickel                                                                                                                                                |
| <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 61076-2-101 (M12)                                                                                                                              |
| <b>Installation   Cable</b>                     |                                                                                                                                                       |
| Cable identification                            | S4U                                                                                                                                                   |
| Function cable                                  | Data                                                                                                                                                  |
| Amount stranding                                | 2                                                                                                                                                     |
| Stranding                                       | 2 wires stranded                                                                                                                                      |
| Amount stranding (type 2)                       | 1                                                                                                                                                     |
| Stranding (type 2)                              | 2 stranding combinations stranded                                                                                                                     |
| Cable shielding (type)                          | copper braid, tinned                                                                                                                                  |
| Cable shielding (coverage)                      | 75 %                                                                                                                                                  |
| Banding                                         | Foil                                                                                                                                                  |
| Cable weight                                    | 50,6 g/m                                                                                                                                              |
| Material wire insulation                        | HDPE                                                                                                                                                  |
| Amount wires                                    | 4                                                                                                                                                     |
| Outer diameter insulation                       | 1,22 mm                                                                                                                                               |
| Outer diameter tolerance core insulation        | ± 0,05 mm                                                                                                                                             |
| Ingredient freeness wire insulation             | lead-free, CFC-free                                                                                                                                   |
| Amount strands (wire)                           | 7                                                                                                                                                     |
| Diameter of single wires                        | 32 AWG                                                                                                                                                |
| Conductor crosssection (wire)                   | 24 AWG                                                                                                                                                |
| Material conductor wire                         | copper stranded wire, tinned                                                                                                                          |
| Outer-diameter (jacket)                         | 6,6 mm                                                                                                                                                |
| Tolerance outer diameter (sheath)               | ± 5 %                                                                                                                                                 |
| Material jacket                                 | TPE                                                                                                                                                   |
| Shore hardness jacket                           | 80 ± 5 Shore A                                                                                                                                        |
| Freedom from ingredients (jacket)               | lead-free, CFC-free                                                                                                                                   |
| Cable length max.                               | 83 m                                                                                                                                                  |
| Conductor resistance (wire)                     | 93.8 Ω/km @ 20 °C                                                                                                                                     |
| Nominal voltage max.                            | 600 V                                                                                                                                                 |
| Loop resistance                                 | 280 Ω/km                                                                                                                                              |
| Withstand voltage (wire - wire)                 | 1.5 kV @ 2 s                                                                                                                                          |
| Withstand voltage (wire - jacket)               | 1.5 kV @ 2 s                                                                                                                                          |
| Current load capacity (standard)                | to DIN VDE 0298-4                                                                                                                                     |
| Current load capacity max. (wire)               | 2,4 A                                                                                                                                                 |
| Characteristic impedance                        | 100 Ω ± 5 % @ 100 MHz                                                                                                                                 |

|                                      |                             |
|--------------------------------------|-----------------------------|
| Operating temperature min. (static)  | -40 °C                      |
| Operating temperature max. (static)  | 80 °C                       |
| Operating temperature min. (dynamic) | -40 °C                      |
| Operating temperature max. (dynamic) | 80 °C                       |
| Storage temperature min.             | -40 °C                      |
| Storage temperature max.             | 80 °C                       |
| Oil resistance                       | good                        |
| UV resistance                        | UL 444 § 7.22               |
| Other resistances                    | resistant to welding sparks |
| Bending radius (fixed)               | 8 × Outer diameter          |
| Bending radius (dynamic)             | 8 × Outer diameter          |
| No. of bending cycles (C-track)      | 35 Mio. @ 25 °C             |
| Traversing distance (C-track)        | 0.6 m @ 25 °C               |
| Travel speed (C-track)               | 1.2 m/s @ 25 °C             |
| Acceleration (C-track)               | 2.4 m/s² @ 25 °C            |
| No. of torsion cycles                | 3 Mio.                      |
| Torsion stress                       | ± 270 °/m                   |
| Torsion speed                        | 60 cycles/min               |