

**Overview**

- M12, male, X-coded, 8-poles; PUR, 1500 cm, shielded; RJ45, male, X-coded, 8-poles
- Dragchain capable; suitable for robotics  $\pm 180^\circ/\text{m}$ , CAT6A, 10Gbit/s
- Head A: IP66K, IP67; Head B: IP20
- Cable: good resistance against flames, oils
- Halogen free



**Technical data**

**Side A**

Head A: Connection	M12
Head A: Angle cable outlet	0°
Head A: Gender	Male
Head A: Coding	X
Head A: No. of poles	8
Head A: LED	No
Head A: Width across flats	AF13
Head A: Tightening torque	0.6 Nm
Head A: Knurled nut material	Zinc-pressure die casting, surface Ni
Head A: Body color	Black
Labeling sleeve side A	Yes

**Side B**

Head B: Connection	RJ45
Head B: Angle cable outlet	0°
Head B: Gender	Male
Head B: No. of poles	8
Head B: LED	No
Head B: Body color	Black
Labeling sleeve side B	Yes

**Cables**

Cable length	1500 cm
Length tolerance	$\pm 22.5$ cm
Shielded	Yes
Conductor structure	7 × 0.203 mm
AWG	24
External sheath: Material	PUR
External sheath: Color	Green
Cable diameter	8.9 mm $\pm 5\%$
Wire cross section	0.227 mm <sup>2</sup>

**Cable**

Cable: Temperature range (mobile)	- 30 ...+ 70 °C
Cable: Temperature range (fixed)	- 40 ...+ 80 °C
Shielded	Yes
Shielding: Covering	approx. 85 %
Characteristic impedance	100 Ohm $\pm 15\%$
Signal delay	5.2 ns/m

**Cable**

Transmission rate	10 Gbit/s
Bending radius (fixed)	71.2 mm
Number of wires	8
Number and diameter of wires	8x0.227
Length tolerance	$\pm 22.5$ cm
Cable length	1500 cm
Acceleration (C-track)	max. 4 m/s <sup>2</sup>
AWG	24
Bending radius (fixed)	min. 8 × outer diameter
Bending radius (mobile)	min. 15 × outer diameter
Cable weight	approx. 116.6 g/m
Conductor structure	7 × 0.203 mm
Cable diameter	8.9 mm $\pm 5\%$
Insulation resistance	min. 5 MOhm x m
Conductor: Material	Copper, bare
External sheath: Material	PUR
Insulation: Material	PE
Shielding: Material	Copper, tinned; PET aluminium coated
No. of bending cycles (C-track)	approx. 2000000 Cycles
Nominal voltage	300 V
No. of torsion cycles	approx. 1000000 Cycles
Paired stranding	Yes
Single wire diameter	0.203 mm
Cable: Test voltage	2 kV AC core-core ; 2 kV AC core-shield
Torsion stress in °	$\pm 180^\circ/\text{m}$
Total stranding	4 x 2 wires strand to pair, pairs strand around central separator
Travel speed (C-track)	max. 4 m/s
Traversing path (horizontal)	max. 5 m
Wire cross section	0.227 mm <sup>2</sup>
Wire processing	No
Wire diameter incl. isolation	1.05 mm $\pm 5\%$
External sheath: Color	Green
Protocols	CAT6A

**Electrical data**

Operating voltage	max. 60 V DC
Nominal voltage	300 V

**Technical data**

**Electrical data**

Contact resistance	max. 30 mOhm
Operating current per contact	max. 0.5 A

**Mechanical data**

Head A: Degree of protection	IP66K, IP67
Head B: Degree of protection	IP20
Bending radius (mobile)	min. 15 × outer diameter
Bending radius (fixed)	min. 8 × outer diameter
No. of bending cycles (C-track)	approx. 2000000 Cycles
Torsion stress in °	± 180 °/m
No. of torsion cycles	approx. 1000000 Cycles
Acceleration (C-track)	max. 4 m/s <sup>2</sup>
Travel speed (C-track)	max. 4 m/s

**Environmental conditions**

Temperature range (mobile)	- 25 ...+ 70 °C
Temperature range (fixed)	- 25 ...+ 80 °C
Cable: Temperature range (fixed)	- 40 ...+ 80 °C

**Environmental conditions**

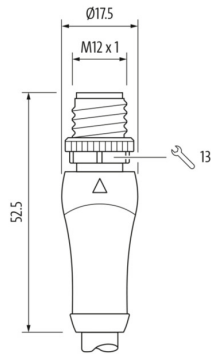
Dragchain capable	Yes
Head A: Chemical resistance	No
Head A: Flame resistance	HB (UL 94)
Head A: Oil resistance	ASTM 1 oil, mineral oils, limited to hydraulic oils
Head A: Acid and alkali resistant	No
Head A: Pollution degree	3
Head B: Chemical resistance	No
Head B: Flame resistance	HB (UL 94)
Head B: Pollution degree	3
Cable: Flame resistance	Conform UL 1581 §1090, §1100 (FT2), IEC 60332-1-2 Std.
Cable: Oil resistance	Conform IEC 60811-2-1, ASTM IRM 901 Std.
Cable: Silicone-free	Yes

**Commercial data**

Eclass	27061801
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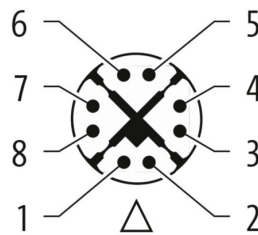
**Side A**

**Technical drawing**



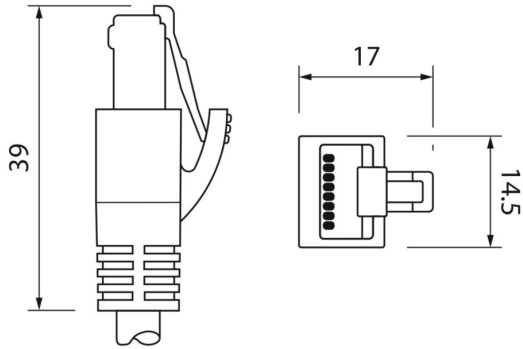
**Side A**

**Coding**



**Side B**

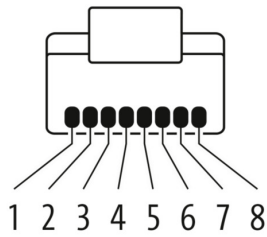
**Technical drawing**



**Dimension drawing**



**Coding**



**Connection diagram**

