Product description

Industrial Ethernet Patchcord, Profinet Type A, Cat.5,
straight plug M12 (D-coded) on straight plug RJ45, PVC

This datasheet is also valid for other lengths
configurations. Other lengths configurations on request

Product variations

Article number	Article description	Length (L*) [m]
2171165	IE-PNA-5-M12D-S-1-Y-2-22-1-RJ45	1
2171166	IE-PNA-5-M12D-S-2-Y-2-22-1-RJ45	2
2171167	IE-PNA-5-M12D-S-3-Y-2-22-1-RJ45	3
2171168	IE-PNA-5-M12D-S-5-Y-2-22-1-RJ45	5
2171169	IE-PNA-5-M12D-S-10-Y-2-22-1-RJ45	10
2171170	IE-PNA-5-M12D-S-20-Y-2-22-1-RJ45	20

General properties, Patchcord

Outer diameter, cable	6.5 mm
Number of cores	4
Outer sheath	PVC
Outer sheath, color	green similar to RAL 6018
Mating cycles, M12 connector	100
Mating cycles, RJ45 connector	750
Screening	SF/UTP

General properties, cable

LAPP-Article number of cable	2170893
LAPP-Description of cable	ETHERLINE Y FC Cat.5
Conductor, outer diameter	ca. 0.64 mm
Conductor, material	bare copper-wire
Insulation, outer diameter	ca. 1.5 mm
Insulation, material	PE
Core identification code	acc. to IEC 708-1: white, yellow, blue, orange
Stranding	star quad (optional with central filler)
Wrapping	plastic tape (overlapping) plastic laminated aluminum foil (overlapping)
Screening	on top: braid of copper wire tinned wire, coverage ca. 85%

Electrical properties, cable at 20°C

Resistance (loop)	≤ 115 Ω/km
Insulation material, specific electrical resistance	≥ 500 MΩ*km
Characteristic impedance (1 MHz to 100 MHz)	100 Ω ± 15 Ω
UL-Rating	600 V
Signal propagation time	< 5.3 ns/m
Test voltage (rms 50 Hz, 1 min.), core-core	2000 V
Test voltage (rms 50 Hz, 1 min.), core-screening	2000 V

Mechanical and thermal properties, cable

Minimum bending radius, during laying	15 x cable diameter
Minimum bending radius, fixed installation	10 x cable diameter
Permissible temperature range, during laying	-20 ˚C to +60 ˚C
Permissible temperature range, fixed installation	-40 ˚C to +80 ˚C
Sunlight resistance	sunlight resistant acc. to UL 1581 Sec. 1200
Flame propagation	flame retardant acc. to UL 1685 (CSA FT 4)
General requirements	Dangerous and forbidden substance acc. to RoHS directive (2002/95/EG) are not allowed to the manufacturing

General properties, M12 connector

Coding	D
Protection degree	IP67/IP69 locked connector
Rated voltage max.	250 V
Rated current at 40 °C	4 A
Ambient temperature	-30 °C to +90 °C
Insulation resistance	≥ 10^8 Ω
Locking nut with vibration protection	Yes
Tightening torque	1.0 Nm

Materials, M12 connector

Contacts, base material	CuZn
Contacts, surface	Au
Grip body	TPU
Locking nut, base material	CuZn
Locking nut, surface	Ni

General properties, RJ45 connector

Protection degree	IP20
Rated voltage max.	50 V
Rated current at 40 °C	1 A
Ambient temperature	-40 °C to +70 °C
Insulation resistance	≥ 10^8 Ω

Materials, RJ45 connector

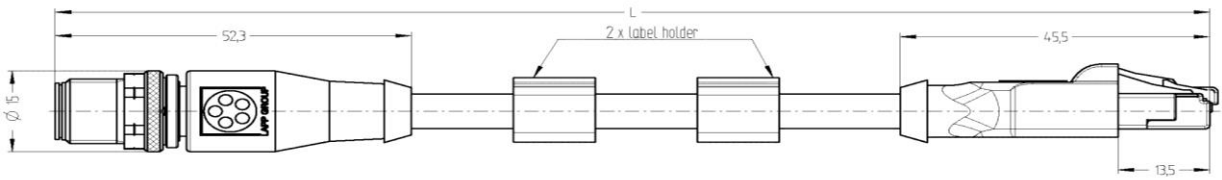
Contacts, base material	CuZn
Contacts, surface	Au

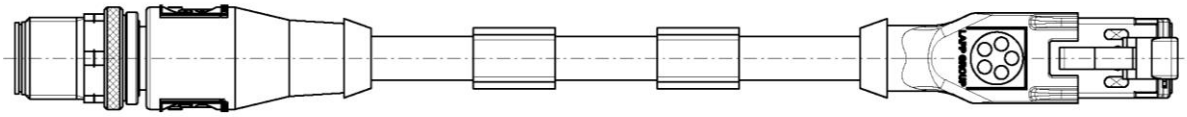
Grip body	TPU

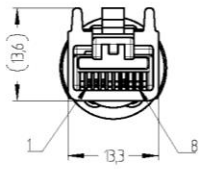
Standards

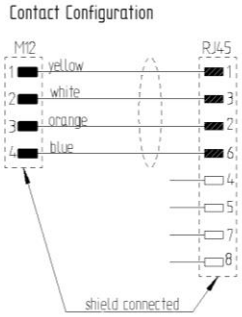
Product standard, M12 connector	DIN EN 61076-2-101
Product standard, RJ45 connector	DIN EN 60603-7-51

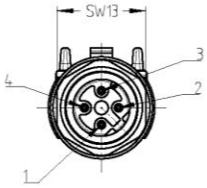
Drawings











Application range

Automation, industrial machinery and plant engineering

Note

Photographs are not true to scale and do not represent detailed images of the respective products.