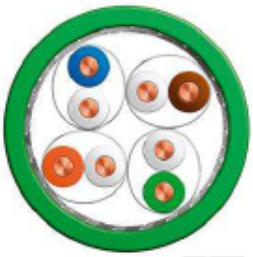
LEONI

LEONI Special Cables GmbH

Technisches Datenblatt – Technical Data Sheet –Technisches Datenblatt – Technical Data Sheet –Technisches Datenblatt – Technical Data Sheet

FieldLink®

LEONI Industrial Ethernet Cat 7



Design

Wire:
Bare copper wire AWG 23/1
Isolierung aus Zell-Polyethylene (PE) mit Skin — ø 1.4 mm (0.055 in dia)
Wall thickness about 0.4 mm

Pair:
Each pair shielded with aluminium foil

Core:
4 pairs twisted
Sequence of colours: WH/BU - WH/OG - WH/GN - WH/BN
Shield braiding of tinned copper wires 0.1 mm dia (38 AWG)
Coverage about 55%
Platic tape overlapped — ø 6.8 mm (0,268 in dia)

Jacket:
Polyurethane (PUR) GN
Wall thickness about 0.6 mm — ø (8.0 ±0.2) mm (0,315 ±0,008 in dia)

Printing: "sequential length in metres" LEONI L INDUSTRIAL ETHERNET STANDARD CABLE PUR CAT 7 *
23AWG * AWM STYLE 20963 80°C 30V * "year/internal order number"

Electrical data at 20°C

Loop resistance			≤ 146	Ohm/km
Resistance difference			2	%
Insulation resistance			≥ 5000	MOhm*km
Signal run time ≥ 10 MHz			5.0	ns/m
Skew			5	ns/100m
Capacitance (1 kHz)			≈ 43	nF/km
Characteristic impedance	0.064	MHz	(125 ± 25)	Ohm
Characteristic impedance	1 - 100	MHz	(100 ± 15)	Ohm
	101 - 250	MHz	(100 ± 18)	Ohm
	251 - 600	MHz	(100 ± 25)	Ohm
Surface transfer impedance	10	MHz	≤ 10	mOhm/m

Ground unbalance attenuation	64 kHz (1000m)	≥	46	dB
Ground unbalance attenuation	1 MHz (100m)	≥	40	dB
Ground unbalance attenuation	100 MHz (100m)	≥	20	dB
Unbalance to ground	0,001 MHz	≤	1000	pF/km
Relative velocity of propagation			79	%
Test voltage (wire/wire/screen rms 50Hz 1min)			700	V

Frequency	1	10	16	20	31.25	62.5	100	250	600
Next (dB) *	80	80	80	80	80	75.1	72.4	65.3	60.8
typ.	100	100	100	100	100	96	94	86	73
PSNext (dB) *	77	77	77	77	77	72.5	69.4	62.3	57.8
typ.	97	97	97	97	97	93	91	83	70
ELFext (dB) *	80	74.0	69.9	68	64.1	58.1	54	44.5	38.4
typ.	92	92	92	92	89	85	82	64	47
PSELFext (dB) *	77	71	66.9	65	61.1	55.1	51	41.5	35.4
typ.	90	90	90	90	87	83	80	62	45
Attenuation * dB/100m)	2.0	5.7	7.2	8.1	10.1	14.5	18.5	33.3	48.9
typ.	1.9	5.6	7.1	8.0	9.9	13.9	17.5	31.7	45.0

* Transmission characteristics acc. to category 7, EN 50288-4-1 (100m installed cable)

Mechanical and thermal characteristics

Conductor material acc. to DIN EN 13602 Cu-ETP-A...
Screen material acc. to DIN EN 13602 Cu-ETP-A...-B
Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3) (02Y)
Jacket material acc. F45052-F5100 (similar to DIN VDE 0282)
Flame retardant acc. to IEC 60332-1-2
Oil resistant acc. to IEC 60811-2-1

UL-Style 20963 (80°C/30V)

Other characteristics:

Corrosivity of fumes acc. to IEC 60754-1

Permissible temperature range : -40 °C (-40 °F) up to 70 °C (158 °F)
Min. bending radius allowed : repeated 8X ø, single 5X ø
Weight about : 61 Kg/km (41 lb/1000ft)

Designation of order:

L45467-J816-C38
210432
02YSC11Y 4X2X0.6/1.4-100 FRNC GN PIMF
2000 m (6562 ft) on non-returnable reel