Global Business Unit Electronics
Product Information

Technical Data Sheet - HARTING RJ Industrial® Trailing Cable

p/n : 09 45 600 0101

Design:

Wire:

Stranded tinned wire 7 X 0.25	ø 0.75 mm
Insulation of Polyethylen (PE)	ø 1.5 mm

Core:

Filler as central element
1. layer: 4 wires 2Y 0.75/1.5 LI
Sequence of colors: WH-YE-BU-OG
Plastic laminate, overlapped

Inner jacket: Thermoplastic copolymer (FRNC) NF	ø 3.9 mm

Alulaminate foil overlapped
Shield braiding of tinned copper wires 0.13 mm dia

Coverage about 85%	ø 4.7 mm

Jacket:

Polyurethane (PUR) GN

Wall thickness about 0.9 mm	ø (6.5 ±0.2) mm

Electrical data at 20°C:

Loop resistance		≤ 120 Ohm/km
Resistance difference		5 %
Signal run time		≤ 5.3 ns/m
Insulation resistance		≥ 500 MOhm*km
Characteristic impedance 1 – 100 MHz		(100 ±15) Ohm
Near-end crosstalk attenuation		s. table
Far-end crosstalk attenuation		s. table
Attenuation		s. table
Ground unbalance attenuation at 64 kHz		≥ 43 dB
Capacity unbalanced to ground at 1 kHz		≤ 3300 pF/km
Return loss (dB)	1 ≤ f ≤ 10 MHz	20 + 5 log (f)
	10 ≤ f ≤ 20 MHz	25
	20 ≤ f ≤ 100 MHz	25 - 8.6 log (f/20)
Surface transfer impedance of screen 10 MHz		≤ 10 mOhm/m
Test voltage (wire/wire/screen rms 50Hz 1min)		= 700 V

Near-end crosstalk attenuation

Frequency (MHz)	0.772	1	4	10	16	20	31.25	62.5	100
CAT 5E requirements (dB – 100m) ≥	67	65.3	56.3	50.3	47.3	45.8	42.9	38.4	35
typ. Value (dB – 100m)	≥ 80	≥ 80	76	70	65	63	60	55	50

Far-end crosstalk attenuation

Frequency (MHz)	0.772	1	4	10	16	20	31.25	62.5	100
CAT 5E requirements (dB – 100m) ≥	66	63.8	51.7	43.8	39.7	37.7	33.9	27.8	23.8
typ. Value (dB – 100m)	≥ 80	≥ 80	75	65	59	55	50	47	45

Attenuation

Frequency (MHz)	0.256	0.512	0.772	1	4	10	16	20	31.25	62.5	100
CAT 5E requirements (dB – 100m) ≥	1.3	1.8	2.2	2.4	4.9	7.8	9.8	11.1	14	20.4	26.4
typ. Value (dB – 100m)	0.9	1.1	1.4	1.8	3.6	6.0	7.6	8.7	11.2	17	22

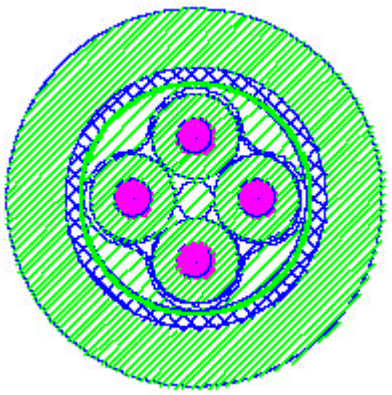
Mechanical and thermal characteristic:
Conductor material acc. to DIN 40500 part 5, E-Cu58 F21-V2
Screen material acc. to DIN 40500 part 5, E-Cu58 F21-V2
Insulating material acc. to DIN VDE 0819, part 103, table 1-L/MD
Jacket material acc. F45052-F5100 (similar to DIN VDE 0282)
Flame test acc. to IEC 60332-1
Oil resistance VDE 0473 part 811-2-1

UL-File E119100 Vol.1 Sec.13
UL-File E119100 Vol.2 Sec. 5 Verified CAT 5E
Electrical requirements acc. to . prEN 50288 (Juni 1999) Category 6

Application / Special feature:
UV-Resistant
Tensile strength ≤ 150N

Trailing cable for following requirements (in work)
- 5 million bending cycles
- daimeter 200 mm

Permissible temperature range: -40°C up to +70°C
During laying: -20°C up to +60°C
Transport temperature range: -50°C up to +70°C
min. bending diameter allowed: multiple 15X ø
single 10X ø
Weight about: 61 Kg/km (40,9 lb/1000ft)



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Version 1.1 - 28.07.2003