

Profibus FMS/DP 150 Ω - Flex

70 °C / 300 V

Low Smoke, Zero Halogen, Flame Retardant

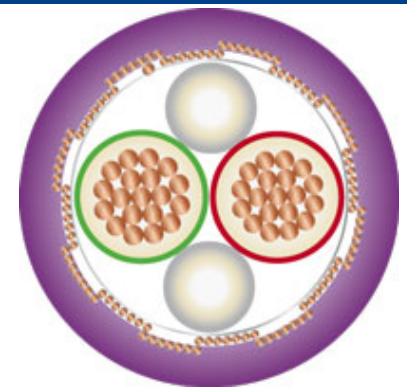
FB-02YS(St+Ce)H

Application

Fieldbus cable, Type A, for bus-systems Profibus FMS/DP and FIP acc. to IEC 61158-2 (interface RS 485). Suitable for use in hazardous classified locations class I and class II division 2 acc. to NEC 501.10(B) and NEC 502.10(B) or zone 1 and zone 2, group II, acc. to IEC 60079-14, resp. Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations; not for direct burial. Suitable for fixed and flexible installation.

Construction

Conductor.....	plain annealed copper wire, multi stranded, size:
Insulation.....	foamed polyethylene with skin layer
Colour code.....	(+)-core: red, (-)-core: green
Collective screen.....	plastic coated aluminium tape, metallic surface outside, in contact with tinned copper drain wire and tinned copper wire braid
Outer sheath.....	low smoke, zero halogen, flame retardant compound LSZH, violet
Cable marking.....	LEONI KERPEN ICON FIELDBUS CABLE IEC 61158-2 150Ω PROFIBUS FMS/DP SIZE 300V TEMPERATURE SUN RES PRODUCTION LOT CODE LENGTH MARKING



Technical data

Flame propagation		Temperature range
- Test on single cable	IEC 60332-1-2	-30°C up to +70°C (during operation)
- Test on bunched cables	IEC 60332-3-24 (Cat. C)	-5°C up to +50°C (during installation)
Smoke density	IEC 61034-1 and 2 (L.T. > 60 %)	Minimum bending radius
Limiting Oxygen Index (LOI)	ASTM D 2863 (min. 30 %)	7.5 x cable diameter
Amount of halogen acid gas	IEC 60754-1 (0%)	
Degree of acidity of gases	IEC 60754-2 (pH ≥ 4.3, C ≤ 10µS/mm)	
Oil resistance	ICEA S-73-532 (*)	
Sunlight resistance	UL 1581 section 1200	

Abbreviations

FB-	Fieldbus Cable
02YS	foamed PE insulation with skin layer
(St+Ce)	collective screen
H	LSZH outer sheath

Electrical Properties at 20 °C

Property	Unit	Value
Conductor cross-section		AWG 22
Conductor resistance (loop)	max. Ω/km	110
Screen resistance	nom. Ω/km	12
Mutual capacitance	max. nF/km	30
Inductance	nom. mH/km	0.9
Capacitance unbalance to earth	max. nF/km	1.5
Impedance at f = 3 MHz		150 Ω ± 15 Ω
Attenuation at f = 0.25 / 0.625 / 1.25 / 3.125 / 16 MHz	nom. dB/km	6 / 9 / 12 / 18 / 40
Test voltage U _{rms} (core : core)	V	1500
Test voltage U _{rms} (core : screen)	V	1500
Operating voltage	V	300

*(Test temperature + 60 °C; duration 4 h. Retention: min. 60 % of tensile strength/min. 60 % of elongation)

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Geometrical data		
No. of elements	Dia. of core approx. (mm)	Part No. Colour violet
mm²/19		
1	2.7	LKX792605030000

RT = Radial Thickness