

Fieldbus Foundation H1 100 Ω - Eco

90 °C / 300 V

Flame Retardant

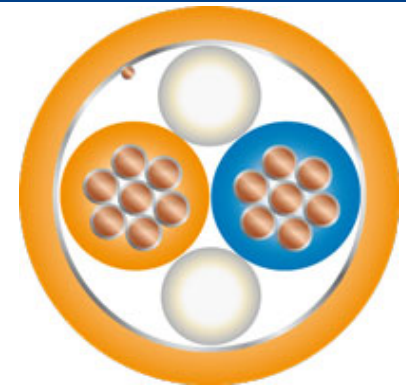
FB-v2X(St)Y-fi

Application

Fieldbus cable, Type A, for bus-systems Fieldbus Foundation acc. to IEC 61158-2. 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.

Construction

Conductor..... tinned annealed copper wire, stranded, size:
 Insulation..... cross-linked polyethylene XLPE
 Colour code..... (+)-core: orange, (-)-core: blue
 Collective screen..... aluminium polyester foil in contact with tinned copper drain wire
 Outer sheath..... polyvinyl chloride PVC, orange, blue for intrinsically safe systems
 Cable marking..... LEONI KERPEN ICON FIELDBUS CABLE IEC 61158-2 TYPE A 100Ω
 FF-844 SIZE STP 300V 90 °C SUN RES PRODUCTION LOT CODE
 LENGTH MARKING



Technical data

Flame propagation
 - Test on single cable IEC 60332-1-2
 - Test on bunched cables IEC 60332-3-24 (Cat. C)
 Limiting Oxygen Index (LOI) ASTM D 2863 (min. 30 %)
 Oil resistance ICEA S-73-532
 Sunlight resistance UL 1581 section 1200

Temperature range
 -30°C up to +90°C
 (during operation)
 -5°C up to +50°C
 (during installation)
 Minimum bending radius
 7.5 x cable diameter

Abbreviations

FB- Fieldbus Cable
 v tinned
 2X XLPE insulation
 (St) collective screen
 Y PVC outer sheath
 -fi reduced flame propagation

Electrical Properties at 20 °C

Property	Max.	Unit	Value
Conductor cross-section			AWG 18
Conductor resistance (loop)	max.	Ω/km	47
Screen resistance	nom.	Ω/km	30
Mutual capacitance	max.	nF/km	80
Inductance	nom.	mH/km	0.7
Capacitance unbalance to earth	max.	nF/km	4
Impedance at f = 31.25 kHz			100 Ω ± 20 Ω
Attenuation at f = 39 kHz	max.	dB/km	3.0
Propagation delay change (f = 7.9 kHz - 39 kHz)	max.	µs/km	1.7
Test voltage U _{rms} (core : core)		V	1500
Test voltage U _{rms} (core : screen)		V	1500
Operating voltage		V	300

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Geometrical data					
No. of elements	Dia. of core approx. (mm)	RT of outer sheath nom. (mm)	Outer dia. approx. (mm)	Weight approx. (kg/km)	Part No. Colour orange
mm²/7					
1	2.9	1.0	8.1	74	LKX819400030000

RT = Radial Thickness