

### Profibus PA 100 Ω - Basic

75 °C / 300 V

Rating: Flame Retardant, Sunlight Resistant, Oil Resistant, LSZH Cable

#### FB-02YS(St+Ce)HSAWAH

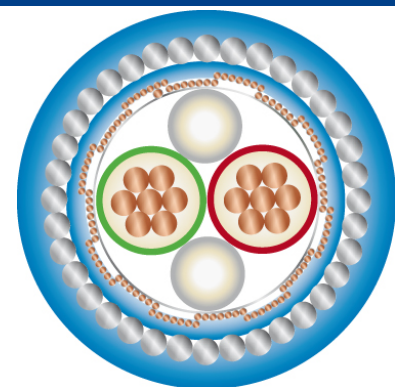
##### Application

Fieldbus cable, Type A, for bus-systems Profibus PA 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; for direct burial. (Please note the relevant legal / local installation requirements)

##### Construction

Conductor.....	plain annealed copper wire, stranded, size: AWG 18
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
Inner sheath.....	low smoke, zero halogen, flame retardant compound LSZH, blue
Armour.....	galvanised round steel wires
Outer sheath.....	low smoke, zero halogen, flame retardant compound LSZH, blue for intrinsically safe systems
Cable marking.....	LEONI KERPEN ICON FIELDBUS CABLE IEC 61158-2 100Ω PLTC PROFIBUS PA Size Shield type (UL) TEMPERATURE SUN RES E-File No. PRODUCTION LOT CODE LENGTH MARKING



##### Technical data

Flame propagation	
- Test on single cable	UL 13 (vertical tray)
- Test on bunched cables	IEC 60332-3-24 (Cat. C)
Smoke density	IEC 61034-1 and 2 (L.T. > 60 %)
Limiting Oxygen Index (LOI)	ASTM D 2863 (min. 30 %)
Amount of halogen acid gas	IEC 60754-1 (0%)
Degree of acidity of gases	IEC 60754-2 (pH ≥ 4.3, C ≤ 10 µS/mm)
Oil resistance	ICEA S-73-532 (*)
Sunlight resistance	UL 1581 section 1200

Temperature range	
-30°C up to +75°C	(during operation)
-5°C up to +50°C	(during installation)
Minimum bending radius	10 x cable diameter

##### Abbreviations

FB-	Fieldbus Cable
02YS	foamed PE insulation with skin layer
(St+Ce)	combined collective screen with drain wire
H	LSZH inner sheath
SWA	steel wire armour
H	LSZH outer sheath

##### Electrical Properties at 20 °C

Property	Max.	Unit	Value
Conductor cross-section			AWG 18
Conductor resistance (loop)	max.	Ω/km	43.6
Screen resistance	nom.	Ω/km	12
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 <sub>rms</sub> (core : core)		V	1500
Test voltage U <sub>rms</sub> (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 armour wire nom. (mm)	RT of outer sheath nom. (mm)	Outer dia. approx. (mm)	Weight approx. (kg/km)	Part No. Colour blue
<b>AWG 18 / 7</b>					
1	0.9	1.0	11.2	252	LKX 7926 100U 0000

RT = Radial Thickness