

# PROFIBUS PA ES Cable for Permanent Installation

## DataGuard® (SWA) / LSZH FireFighter®

### Cable Design

#### Wire

Conductor	Solid bare copper wire (18awg)	Ø 1,05 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 2,55 mm

#### Core

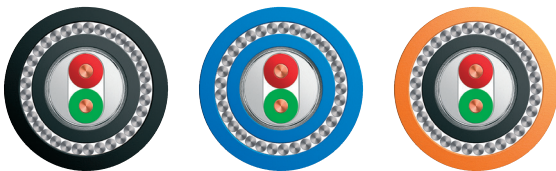
Pair	2 wires twisted to a pair (RD-GN)	
Tape	Plastic tape overlapped	
Easystrip Jacket	Soft Thermoplastic copolymer	Ø 5,40 mm
Screen	Alulminate foil overlapped	
Braid	Tinned copper wire braid, 85% coverage	Ø 6,20 mm
Inner Jacket	LSZH FireFighter®, Black or Blue	Ø 8,0 ± 0,40 mm
Flame retardant	acc. to IEC 60331-2, IEC 60332-3-24	
Halogen free	acc. to IEC 60754-1/2	
Smoke density	acc. to IEC 61034	
Oil resistant	acc. to UL 758 Sec. 15 (60 °C),	
Sunlight resistant	acc. to UL 1581 Sec. 1200,	

#### Armour

DataGuard® Steel Wire Armour (DSWA)

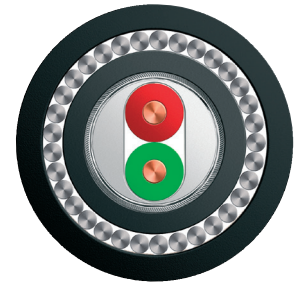
#### Outer Jacket

LSZH FireFighter®, Black, Blue or Orange  
UV-Stable and colourfast



### Specification

Part Number	Type
14L45467-J20-C46	Black 18/1awg Profibus PA <ES> IEC61158-2 LSZH FireFighter IEC60332-1 DataGuard
14L45467-J20-C86	Blue 18/1awg Profibus PA <ES> IEC61158-2 LSZH FireFighter IEC60332-1 DataGuard
14L45467-J20-C186	Orange 18/1awg Profibus PA <ES> IEC61158-2 LSZH FireFighter IEC60332-1 DataGuard



## Electrical Data @ 20° C

Conductor resistance		≤	22	Ohm/km
Insulation resistance		≥	10	MOhm*km
Capacitance (1 kHz)	wire/wire	≈	50	nF/km
	wire/screen	≈	92	nF/km
Characteristic Impedance	31,25 kHz		100±20	Ohm
Attenuation	39 kHz	≤	3	dB/100m
Capacitance unbalance e		≤	2	nF/km
Inductance	31,25 kHz		650	μH/km
Surface transfer impedance	20 MHz	≤	5	mOhm/m
Rel. Velocity of Propagation		≈	81	%
Operating voltage			100	V
UL-Rating			600	V
Test Voltage (wire/wire/screen rms 50Hz 1min.)			2000	V

## Mechanical & Thermal Characteristics

Permissible temperature range			-20 ~ +80	°C
Min. Bending radius allowed			10	x Ø (see Ø tolerance)
Weight (approx.)			386	kg/km