

DataGuard® (SWA)

DeviceNet™ THICK Cable for Permanent Installation



Cable Design

Data Pair 1x2x18awg

Conductor	Stranded tinned copper wire (19/0,25mm) 18awg	Ø 1,30 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 3,80 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulamine foil overlapped	

Power Pair 1x2x15awg

Conductor	Stranded tinned copper wire (19/0,34mm) 15awg	Ø 1,70 mm
Insulation	Polyethylene (PE)	Ø 2,70 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulamine foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,86mm ² (19/0.24mm)	
1 Pair	1x2x18awg screened	
1 Pair	1x2x15awg screened	
Fillers	Fillers in interstices	
Braid	Tinned copper wire braid, 70% coverage	Ø 8,60 mm
Inner Jacket	LSZH (Low Smoke Zero Halogen), Violet	Ø 12,20 ± 0,30 mm

Armour DataGuard® Steel Wire Armour (DSWA)

Outer Jacket LSZH FireFighter®, Black Ø 17,50 ± 0,50 mm



Characteristics

- Indoor/Outdoor applications
- Mechanical protection
- Rodent Protection
- UV-Stable and colourfast
- Flame retardant acc. IEC 60332-2-1
- Halogen free acc. to IEC 60754,
- Smoke density acc. to IEC 61034

ENET™ THICK DATAGUARD® 14L45467-F21-W6

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Electrical Data @ 20 °C

Conductor Resistance	Data pair	≤	22,6	Ohm/km
Conductor Resistance	Power pair	≤	11,7	Ohm/km
Capacitance (1 kHz wire/wire)	Data pair	≈	39,8	nF/km
Characteristic Impedance (1 MHz)	Data pair		120±12	Ohm
Signal Run Time	Data pair	≤	4,46	ns/m
Capacity Unbalanced to ground	Data pair	≤	3937	pF/km
Operating Voltage (peak)		≤	300	V
Insulation Resistance		≥	200	MOhm * km
Test Voltage (wire/wire/screen 50Hz)		=	2000	V
Attenuation	125 MHz		0,42	dB/100m
Attenuation	500 MHz		0,81	dB/100m
Attenuation	1000 MHz		1,31	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range			-25 ~ +80	°C
Min. Bending radius allowed	repeated		10	x Ø (see Ø tolerance)
Weight (approx.)			498	kg/km

Specification

Part Number	Type
14L45467-F21-W6	DeviceNet thick cable for permanent installation (LSZH), 2x18AWG + 2x15AWG, DataGuard® (SWA) / LSZH FireFighter®

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