



DEVICENET™ THIN L45467-F16-W15

DEVICENET™ THICK L45467-F21-W55

DEVICENET™ THIN DATAGUARD® 14L45467-F16-W6

DEVICENET™ THICK L45467-F21-W6

Cable excellence engineered through quality

DeviceNet™ Bus Cables for Industrial Automation





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Descriptions are correct at time of publication, however these may be reviewed at any time and are subject to change without notice. E&OE (Errors and Omissions Excepted) which means that whilst every effort has been made to ensure that the information contained within this publication is accurate, specifications may vary or be subject to change at Belcom's discretion. As such, this publication should be used as a guide only. Exact details can be confirmed at point of enquiry. All cable renders are indicative of the product specified.

There are two major differences that separate Belcom from any other source of Fieldbus cables.

The first is stock, available cut to length and with a next day delivery across the UK or standard 2 day delivery to EIRE. The second is an unwavering commitment to providing the best quality Fieldbus cables available, this has been achieved by joining forces with Leoni special cables GmbH whose modern manufacturing plant in Northern Germany bristles with the latest in cable manufacturing technology. 'In process' continual testing cumulating in one of the best final test facilities we have seen, ensure strict adherence to performance standards critical to the performance of today's high speed data transfer requirements in the industrial network.

Many high tech intelligent process projects are functioning faultlessly over Leoni Fieldlink cables across the world, chemical, pharmaceutical, oil and gas, packaging, water treatment, food and beverage, automotive, you can name a process and there is already a strong presence or developing requirement for Fieldlink Fieldbus cables.

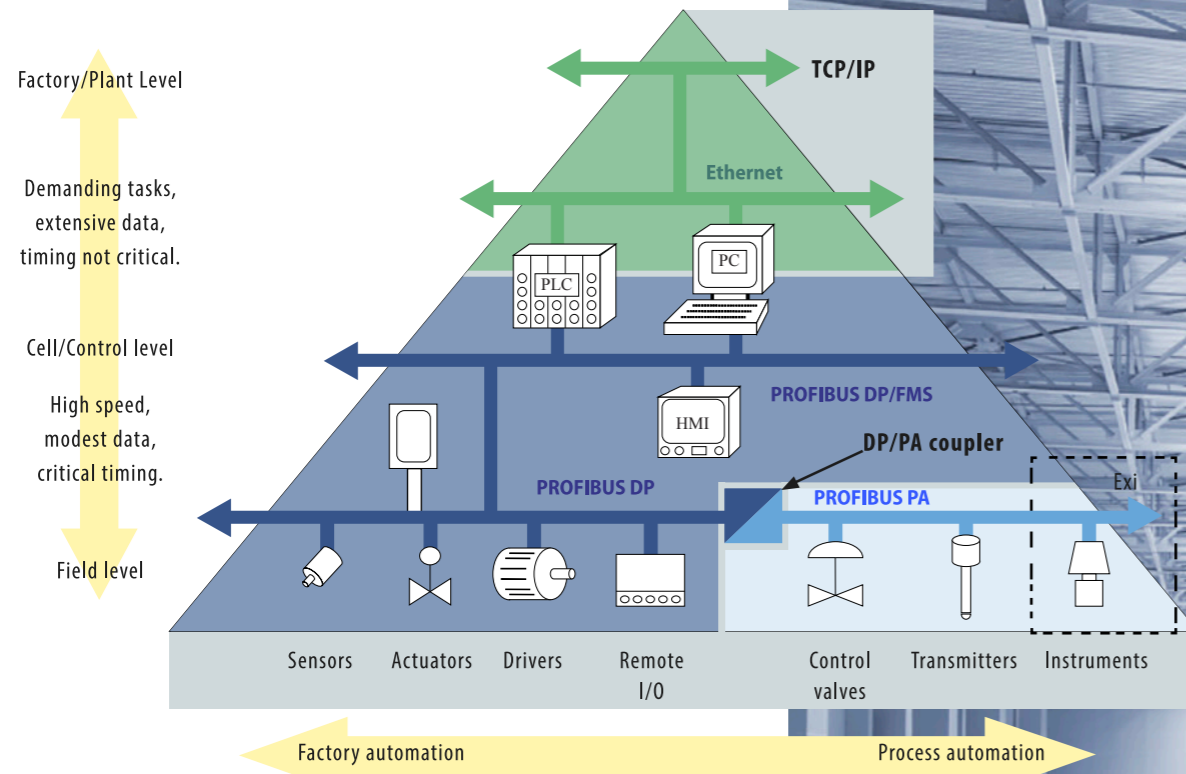
Cable is often an afterthought in the development of new technology process development, which often belies the time, research and testing that goes into producing specific cables for specific applications. With Belcom's range of Leoni Fieldlink cables you have the assurance and confidence that the best cable will be maintaining the integrity of your industrial network.



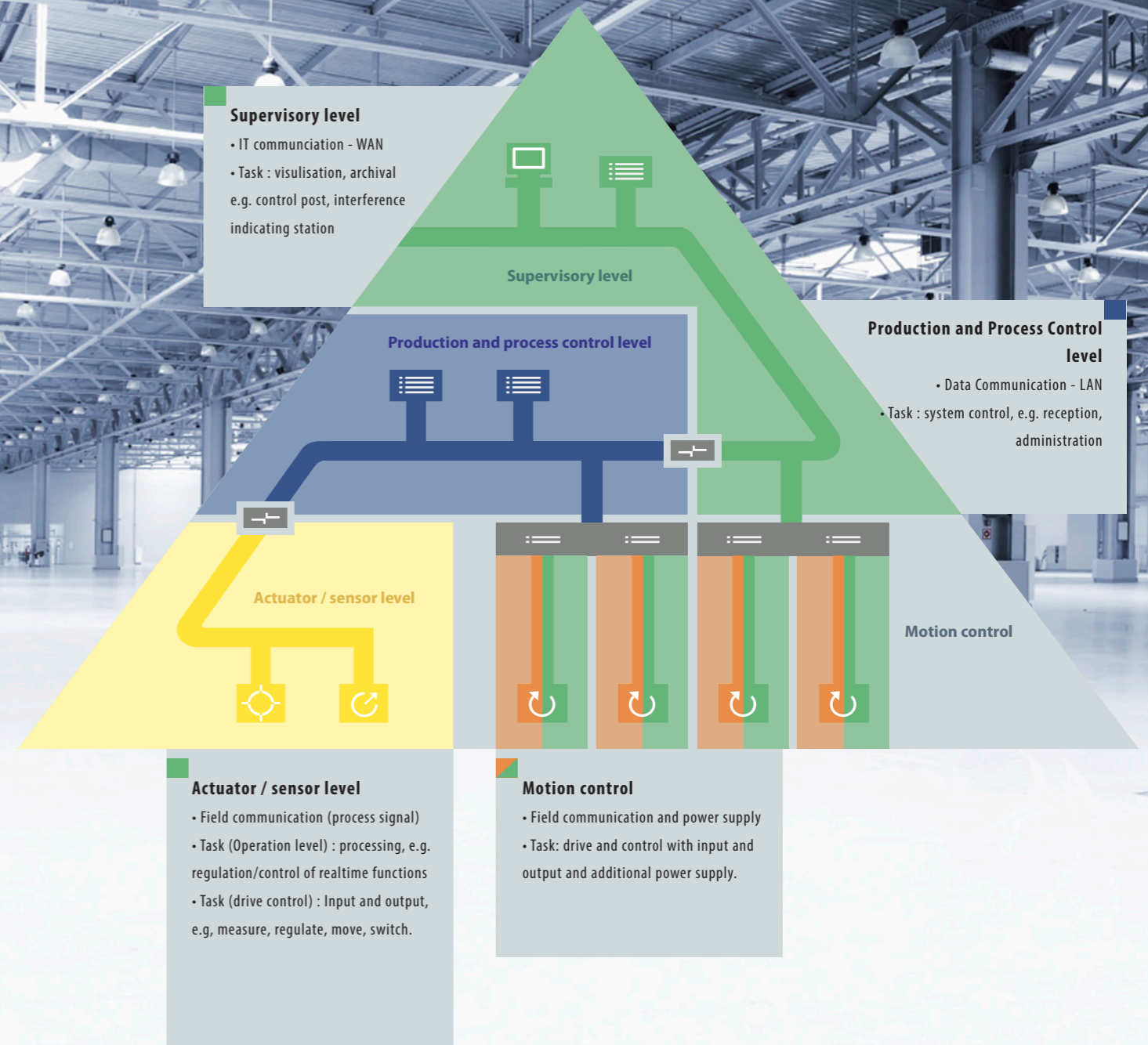
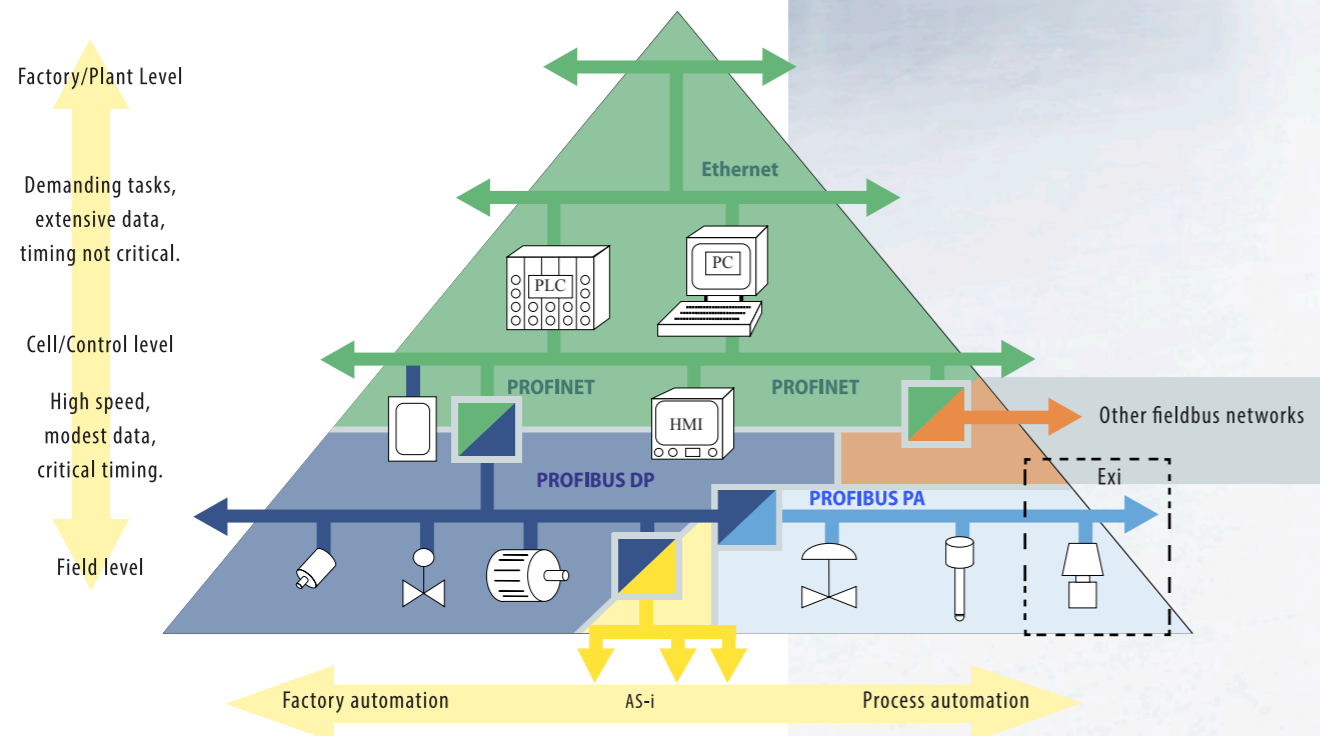
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www.odva.org

Fields of Application



The Control system hierarchy and use of PROFIBUS and Ethernet technology



DeviceNet™

Cable Finder

Click on the cable cross section to view the product specification

Designed with two shielded wire pairs for data transfer plus power supply, these cables meet ODVA standards.

The cable's external sheath is available in robust and highly flexible versions depending on the requirements. The flexible installation types feature a PVC or Low Smoke Zero Halogen (LSZH) sheath. PUR or PVC sheath materials is used for flexible wiring applications. This is suitable for use in mechanical engineering and robotics. Sunlight and oil resistance are two additional features of our DeviceNet Cable types.

In North America, DeviceNet has established itself as the leading bus system for automation technology. To live up to the demands of the US market, all DeviceNet cables produced have American UL approval.

- Flame retardant
- Highly flexible
- Permanent installation
- Trailing cable
- Halogen free
- Silicon free
- Sunlight resistant
- Oil resistant
- Cold resistant
- RoHS compliant



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DeviceNet™

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DeviceNet™

FieldLink®

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	Polyvinylchloride (PVC)	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

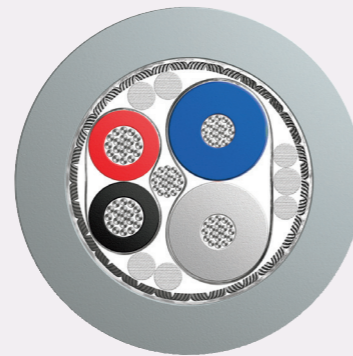
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 12,20 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5
- Oil resistant acc. to UL 13 Sec. 40 (60 °C),

Specification

Part Number	Type
L45467-F21-W5	DeviceNet thick cable for permanent installation, 2x18AWG + 2x15AWG, UL listed: CMG and PLTC



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		≥	20	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		-20 ~ +80	°C
Min. Bending radius allowed	repeated	10	x Ø
Min. Bending radius allowed	single	5	x Ø
Weight (approx.)		197	kg/km



DeviceNet™

FieldLink®

Economy 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	Polyvinylchloride (PVC)	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 8,40 mm

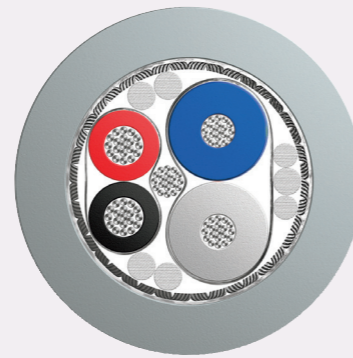
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 11,05 ± 0,50 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5,

Specification

Part Number	Type
L45467-F21-W55	DeviceNet economy thick cable for permanent installation, 2x18AWG + 2x15AWG, UL listed: CMG and PLTC



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		≥	20	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		-20 ~ +80	°C
Min. Bending radius allowed	repeated	10	x Ø
Min. Bending radius allowed	single	5	x Ø
Weight (approx.)		162	kg/km



DeviceNet™

FieldLink®

THIN Cable for Permanent Installation

Cable Design

Data Pair 1x2x23awg

Conductor	Stranded tinned copper wire (19/0,13mm) 23awg	Ø 0,67 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 1,90 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulaminare foil overlapped	

Power Pair 1x2x22awg

Conductor	Stranded tinned copper wire (19/0,16mm) 22awg	Ø 0,75 mm
Insulation	Polyvinylchloride (PVC)	Ø 1,40 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulaminare foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,38mm ² (19/0.16mm)	
1 Pair	1x2x23awg screened	
1 Pair	1x2x22awg screened	
Braid	Tinned copper wire braid, 70% coverage	Ø 4,80 mm

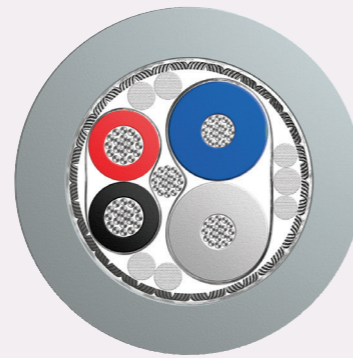
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 6,90 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 4.2.8.5,
- Oil resistant acc. to UL 13 Sec. 40 (60 °C),

Specification

Part Number	Type
L45467-F16-W5	DeviceNet thin cable for permanent installation, 2x23AWG + 2x22AWG, UL listed: CMG and CL2



DEVICENET™ THIN L45467-F16-W5

Electrical Data @ 20 °C

Conductor Resistance	Data pair	≤	90	Ohm/km
Conductor Resistance	Power pair	≤	55	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		≥	20	MOhm*km
Test Voltage (wire/wire/screen 50Hz)		=	2000	V
Attenuation	125 MHz		0,95	dB/100m
Attenuation	500 MHz		1,64	dB/100m
Attenuation	1000 MHz		2,29	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range		-20 ~ +80	°C
Min. Bending radius allowed	repeated	10	x Ø
Min. Bending radius allowed	single	5	x Ø
Weight (approx.)		67	kg/km



DeviceNet™

FieldLink®

Economy THIN Cable for Permanent Installation

Cable Design

Data Pair 1x2x23awg

Conductor	Stranded tinned copper wire (19/0,13mm) 23awg	Ø 0,67 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 1,90 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulaminare foil overlapped	

Power Pair 1x2x22awg

Conductor	Stranded tinned copper wire (19/0,16mm) 22awg	Ø 0,75 mm
Insulation	Polyvinylchloride (PVC)	Ø 1,40 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulaminare foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,38mm ² (19/0.16mm)	
1 Pair	1x2x23awg screened	
1 Pair	1x2x22awg screened	
Braid	Tinned copper wire braid, 70% coverage	Ø 4,60 mm

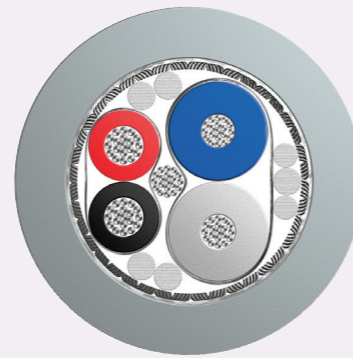
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 6,40 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 4.2.8.5,

Specification

Part Number	Type
L45467-F16-W55	DeviceNet economy thin cable for permanent installation, 2x23AWG + 2x22AWG, UL listed: CMG and CL2



DEVICENET™ THIN L45467-F16-W55

Electrical Data @ 20°C

Conductor Resistance	Data pair	≤	90	Ohm/km
Conductor Resistance	Power pair	≤	55	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		≥	20	MOhm*km
Test Voltage (wire/wire/screen 50Hz)		=	2000	V
Attenuation	125 MHz		0,95	dB/100m
Attenuation	500 MHz		1,64	dB/100m
Attenuation	1000 MHz		2,29	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range		-20 ~ +80	°C
Min. Bending radius allowed	repeated	10	x Ø
Min. Bending radius allowed	single	3,75	x Ø
Weight (approx.)		60	kg/km



DeviceNet™

FieldLink®

THICK Cable for Permanent Installation (LSZH)

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

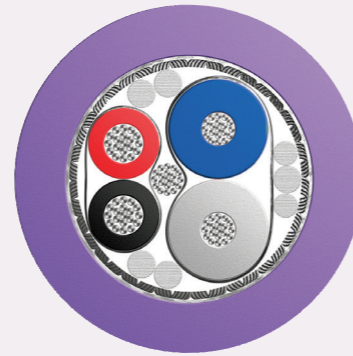
Outer Jacket	LSZH FireFighter®, Violet	Ø 12,20 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Halogen free acc. to IEC 60754,
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5

Specification

Part Number	Type
L45467-F21-W6	DeviceNet thick cable for permanent installation (LSZH), 2x18AWG + 2x15AWG, UL listed: CMG and PLTC



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
Min. Bending radius allowed	single	5	x Ø
Weight (approx.)		189	kg/km

Also available with DataGuard® armoured protection :



DataGuard® SWA
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DeviceNet™

FieldLink®

THIN Cable for Permanent Installation (LSZH)

Cable Design

Data Pair 1x2x23awg

Conductor	Stranded tinned copper wire (19/0,13mm) 23awg	Ø 0,67 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 1,90 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulaminare foil overlapped	

Power Pair 1x2x22awg

Conductor	Stranded tinned copper wire (19/0,16mm) 22awg	Ø 0,75 mm
Insulation	Polyethylene (PE)	Ø 1,40 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulaminare foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,38mm ² (19/0.16mm)	
1 Pair	1x2x23awg screened	
1 Pair	1x2x22awg screened	
Braid	Tinned copper wire braid, 70% coverage	Ø 4,80 mm

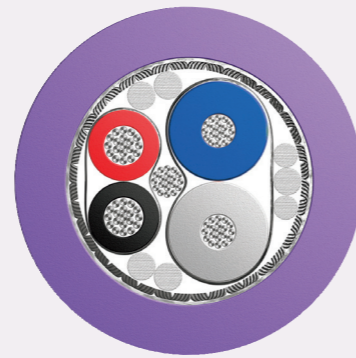
Outer Jacket	LSZH FireFighter®, Violet	Ø 6,90 ± 0,30 mm
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Characteristics

- Flame retardant acc. to IEC 60332-1-2,
- Halogen free acc. to IEC 60754,
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5,

Specification

Part Number	Type
L45467-F16-W6	DeviceNet thin cable for permanent installation (LSZH), 2x23AWG + 2x22AWG, UL listed: CMG and CL2



DEVICENET™ THIN L45467-F16-W6

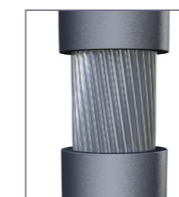
Electrical Data @ 20°C

Conductor Resistance	Data pair	≤	90	Ohm/km
Conductor Resistance	Power pair	≤	55	Ohm/km
Ampacity (up to 25°C)	Power pair	≤	6	A
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		0,95	dB/100m
Attenuation	500 MHz		1,64	dB/100m
Attenuation	1000 MHz		2,29	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range			-25 ~ +80	°C
Min. Bending radius allowed	repeated		10	x Ø
Min. Bending radius allowed	single		5	x Ø
Weight (approx.)			69	kg/km

Also available with DataGuard® armoured protection :



DataGuard® SWA
Page 34-35



DeviceNet™

FieldLink®

THICK Cable for High Flexible Installation

Cable Design

Data Pair 1x2x18awg

Conductor	Stranded tinned copper wire (40/0,18mm) 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	Alulaminare foil overlapped	

Power Pair 1x2x15awg

Conductor	Stranded tinned copper wire (84/0,16mm) 15awg	Ø 1,70 mm
Insulation	Polyvinylchloride (PVC)	Ø 2,70 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulaminare foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,86mm ² (19/0,24mm)	
1 Pair	1x2x18awg screened	
1 Pair	1x2x15awg screened	
Tape	Plastic tape conductiv	
Braid	Tinned copper wire braid, 80% coverage	
Tape	Plastic tape overlapped	Ø 8,80 mm

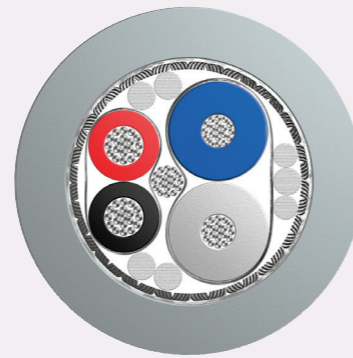
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 12,20 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5
- Oil resistant acc. to UL 13 sec. 40 (60 °C),

Specification

Part Number	Type
L45467-F21-W15	DeviceNet thick cable for high flexible installation, 2x18AWG + 2x15AWG, UL listed: CMG and PLTC



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		≥	20	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		-10 ~ +80	°C
Min. Bending radius allowed	repeated	5	x Ø
Min. Bending radius allowed	single	2,5	x Ø
Weight (approx.)		196	kg/km



DeviceNet™

FieldLink®

Economy THICK Cable for High Flexible Installation

Cable Design

Data Pair 1x2x18awg

Conductor	Stranded tinned copper wire (40/0,18mm) 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 (84/0,16mm) 15awg	Ø 1,70 mm
Insulation	Polyvinylchloride (PVC)	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	
Tape	Plastic tape conductiv	
Braid	Tinned copper wire braid, 80% coverage	
Tape	Plastic tape overlapped	Ø 8,80 mm

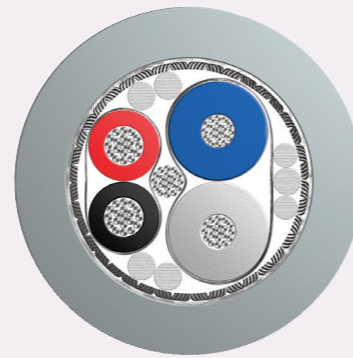
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 11,40 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5,

Specification

Part Number	Type
L45467-F21-W65	DeviceNet economy thick cable for high flexible installation, 2x18AWG + 2x15AWG, UL listed: CMG and PLTC



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		≥	20	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		-10 ~ +80	°C
Min. Bending radius allowed	repeated	5	x Ø
Min. Bending radius allowed	single	2,5	x Ø
Weight (approx.)		172	kg/km



DeviceNet™

FieldLink®

THIN Cable for High Flexible Installation

Cable Design

Data Pair 1x2x23awg

Conductor	Stranded tinned copper wire (19/0,13mm) 23awg	Ø 0,67 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 1,90 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulamine foil overlapped	

Power Pair 1x2x22awg

Conductor	Stranded tinned copper wire (19/0,16mm) 22awg	Ø 0,75 mm
Insulation	Polyvinylchloride (PVC)	Ø 1,40 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulamine foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,38mm ² (19/0.16mm)	
1 Pair	1x2x23awg screened	
1 Pair	1x2x22awg screened	
Tape	Plastic tape conductiv	
Braid	Tinned copper wire braid, 80% coverage	
Tape	Plastic tape overlapped	Ø 5,00 mm

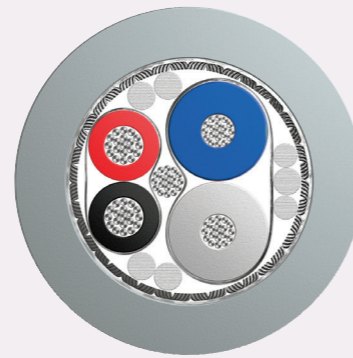
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 6,90 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 4.2.8.5,
- Oil resistant acc. to UL 13 Sec. 40 (60 °C),

Specification

Part Number	Type
L45467-F16-W15	DeviceNet thin cable for high flexible installation, 2x23AWG + 2x22AWG, UL listed: CMG and CL2



Electrical Data @ 20°C

Conductor Resistance	Data pair	≤	90	Ohm/km
Conductor Resistance	Power pair	≤	55	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		≥	20	MOhm*km
Test Voltage (wire/wire/screen 50Hz)		=	2000	V
Attenuation	125 MHz		0,95	dB/100m
Attenuation	500 MHz		1,64	dB/100m
Attenuation	1000 MHz		2,29	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range		-10 ~ +80	°C
Min. Bending radius allowed	single	2,5	x Ø
Weight (approx.)		70	kg/km



DeviceNet™

FieldLink®

Economy THIN Cable for High Flexible Installation

Cable Design

Data Pair 1x2x23awg

Conductor	Stranded tinned copper wire (19/0,13mm) 23awg	Ø 0,67 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 1,90 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulaminare foil overlapped	

Power Pair 1x2x22awg

Conductor	Stranded tinned copper wire (19/0,16mm) 22awg	Ø 0,75 mm
Insulation	Polyvinylchloride (PVC)	Ø 1,40 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulaminare foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,38mm ² (19/0.16mm)	
1 Pair	1x2x23awg screened	
1 Pair	1x2x22awg screened	
Tape	Plastic tape conductiv	
Braid	Tinned copper wire braid, 80% coverage	
Tape	Plastic tape overlapped	Ø 5,00 mm

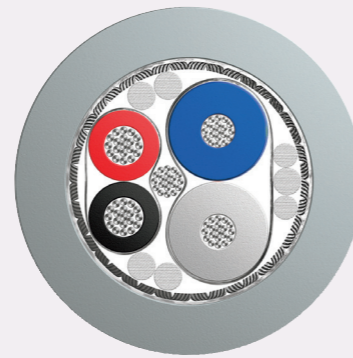
Outer Jacket	Polyvinylchloride (PVC), Grey	Ø 6,80 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 1685 (CSA FT 4),
- Sunlight resistant acc. to UL 2556 4.2.8.5,

Specification

Part Number	Type
L45467-F16-W65	DeviceNet economy thin cable for high flexible installation, 2x23AWG + 2x22AWG, UL listed: CMG and CL2



DEVICENET™ THIN L45467-F16-W65

Electrical Data @ 20°C

Conductor Resistance	Data pair	≤	90	Ohm/km
Conductor Resistance	Power pair	≤	55	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		≥	20	MOhm*km
Test Voltage (wire/wire/screen 50Hz)		=	2000	V
Attenuation	125 MHz		0,95	dB/100m
Attenuation	500 MHz		1,64	dB/100m
Attenuation	1000 MHz		2,29	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range		-10 ~ +80	°C
Min. Bending radius allowed	repeated	5	x Ø
Min. Bending radius allowed	single	2,5	x Ø
Weight (approx.)		67	kg/km



DeviceNet™

FieldLink®

THICK Cable for High Flexible Installation

Cable Design

Data Pair 1x2x18awg

Conductor	Stranded tinned copper wire (40/0,18mm) 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 (84/0,16mm) 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	
Tape	Plastic tape conductiv	
Braid	Tinned copper wire braid, 70% coverage	
Tape	Plastic tape overlapped	Ø 8,80 mm

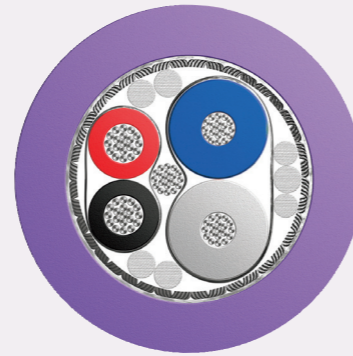
Outer Jacket	Thermoplastic Polyurethane (TPU), Violet	Ø 12,20 ± 0,30 mm
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Characteristics

- Flame retardant acc. to 2556 Sec. 9.4 (VW-1),
- Halogen free acc. to IEC 60754,
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5,
- Oil resistant acc. to UL 13 sec. 40 (60 °C),

Specification

Part Number	Type
L45467-F21-W8	DeviceNet thick cable for high flexible installation, 2x18AWG + 2x15AWG, UL listed: CMX and CL2X



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		-40 ~ +80	°C
Min. Bending radius allowed	repeated	5	x Ø
Min. Bending radius allowed	single	2,5	x Ø
Weight (approx.)		184	kg/km
Trailing cable for following requirements		2,5 million bending cycles	
		bending radius 100mm	
		at a speed of 4 m/s	
		acceleration 4 m/s ²	
		maximum length horizontal of cable 6m	



DeviceNet™

FieldLink®

THIN Cable for High Flexible Installation

Cable Design

Data Pair 1x2x23awg

Conductor	Stranded tinned copper wire (19/0,13mm) 23awg	Ø 0,67 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 1,90 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulaminare foil overlapped	

Power Pair 1x2x22awg

Conductor	Stranded tinned copper wire (19/0,16mm) 22awg	Ø 0,75 mm
Insulation	Polyethylene (PE)	Ø 1,40 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulaminare foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,38mm ² (19/0.16mm)	
1 Pair	1x2x23awg screened	
1 Pair	1x2x22awg screened	
Tape	Plastic tape conductiv	
Braid	Tinned copper wire braid, 80% coverage	
Tape	Plastic tape overlapped	Ø 5,00 mm

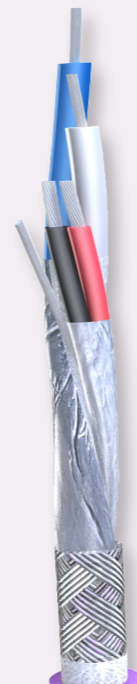
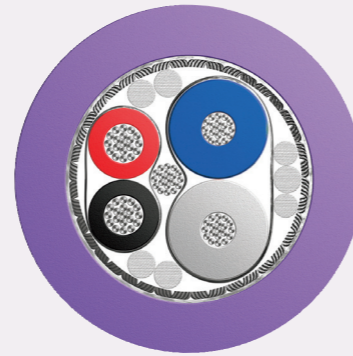
Outer Jacket	Thermoplastic Polyurethane (TPU), Violet	Ø 6,90 ± 0,30 mm
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Characteristics

- Flame retardant acc. to UL 2556 sec. 9.4 (VW-1),
- Halogen free acc. to IEC 60754,
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5,
- Oil resistant acc. to UL 13 Sec. 40 (60 °C),

Specification

Part Number	Type
L45467-F16-W8	DeviceNet thin cable for high flexible installation, 2x23AWG + 2x22AWG, UL listed: CMX and CL2X



DEVICENET™ THIN L45467-F16-W8

Electrical Data @ 20°C

Conductor Resistance	Data pair	≤	90	Ohm/km
Conductor Resistance	Power pair	≤	55	Ohm/km
Capacitance (1 kHz wire/wire)	Data pair	≈	39,8	nF/km
Mutual Capacitance (1 kHz)	Data pair	≈	31,5	nF/km
Mutual Capacitance (1 kHz)	Power pair	≈	78	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
Inductance (1 kHz)	Data pair		885	µH/m
Inductance (1 kHz)	Power pair		698	µH/m
Operating Voltage (peak)		≤	300	V
Insulation Resistance		≥	200	MOhm*km
Test Voltage (wire/wire/screen 50Hz)		=	2000	V
Attenuation	125 MHz		0,95	dB/100m
Attenuation	500 MHz		1,64	dB/100m
Attenuation	1000 MHz		2,29	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range		-40 ~ +80	°C
Min. Bending radius allowed	repeated	5	x Ø
Min. Bending radius allowed	single	2,5	x Ø
Weight (approx.)		67	kg/km



DeviceNet™

FieldLink®

THICK Cable for Permanent Installation DataGuard® (SWA)

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 FireFighter®, Violet	Ø 12,20 ± 0,30 mm

Armour DataGuard® Steel Wire Armour (DSWA)

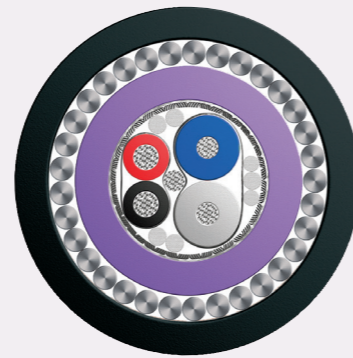
Outer Jacket LSZH FireFighter®, Violet Ø 17,20 ± 0,40 mm
UV-Stable and colourfast

Characteristics

- Flame retardant acc. IEC 60332-2-1
- Halogen free acc. to IEC 60754,
- Smoke density acc. to IEC 61034

Specification

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



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



DeviceNet™

FieldLink®

THIN Cable for Permanent Installation DataGuard® (SWA)

Cable Design

Data Pair 1x2x23awg

Conductor	Stranded tinned copper wire (19/0,13mm) 23awg	Ø 0,67 mm
Insulation	Foamed Polyethylene (PE) with skin	Ø 1,90 mm
Pair	2 insulated conductors twisted to a pair, WH/BU	
Screen	Alulamine foil overlapped	

Power Pair 1x2x22awg

Conductor	Stranded tinned copper wire (19/0,16mm) 22awg	Ø 0,75 mm
Insulation	Polyethylene (PE)	Ø 1,40 mm
Pair	2 insulated conductors twisted to a pair, RD/BK	
Screen	Alulamine foil overlapped	

Core

Central Element	Stranded tinned copper drain wire 0,38mm ² (19/0.16mm)	
1 Pair	1x2x23awg screened	
1 Pair	1x2x22awg screened	
Braid	Tinned copper wire braid, 70% coverage	Ø 4,80 mm
Inner Jacket	LSZH FireFighter®, Violet	Ø 6,90 ± 0,30 mm

Armour DataGuard® Steel Wire Armour (DSWA)

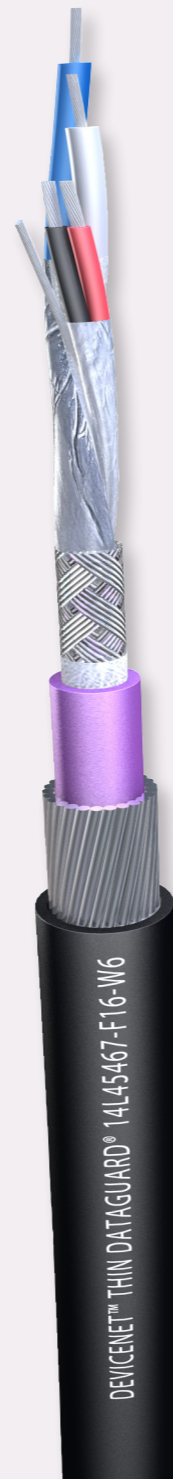
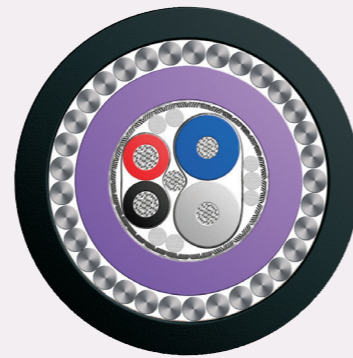
Outer Jacket LSZH FireFighter®, Violet Ø 10,70 ± 0,30 mm
UV-Stable and colourfast

Characteristics

- Flame retardant acc. IEC 60332-2-1
- Halogen free acc. to IEC 60754,
- Smoke density acc. to IEC 61034

Specification

Part Number	Type
14L45467-F16-W6	DeviceNet thin cable for permanent installation (LSZH), 2x23AWG + 2x22AWG, UL listed: CMG and CL2 / DataGuard® (SWA) / FireFighter®



Electrical Data @ 20°C

Conductor Resistance	Data pair	≤	90	Ohm/km
Conductor Resistance	Power pair	≤	55	Ohm/km
Ampacity (up to 25°C)	Power pair	≤	6	A
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		0,95	dB/100m
Attenuation	500 MHz		1,64	dB/100m
Attenuation	1000 MHz		2,29	dB/100m

Mechanical & Thermal Characteristics

Permissible temperature range			-25 ~ +80	°C
Min. Bending radius allowed	repeated		10	x Ø (see Ø tolerance)
Weight (approx.)			359	kg/km



FireFighter®

FireFighter cables are produced to exacting IEC standards for fire performance covering 60332-1 flame resistance for single cables and section 3 for bunched cables as well as low smoke generation (61034) and negligible halogen gas emission (60754-1). In addition to these, all FireFighter® cables are sheathed according to IEC60092-359 where applicable for electrical installation in ships as well as being 600 V rated for Tray Cable applications.

In order to meet demanding and diverse customer applications, FireFighter® performance materials are used in conjunction with other brands including DataGuard® (Armoured Cables), Armada® (MOG Cables), SureLAN® (Local area network cables), SureLIGHT® (Fibre Optic) and EventSeries® (Audio & Broadcast).

Whatever the application or installation, where public safety and reliability are concerned, FireFighter® Low smoke zero halogen properties have been proven to perform. It's not just LSZH sheath, It's a FireFighter® Cable.



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Quality Management

Belcom recognise the importance of quality control and constantly monitor our quality performance to ensure compliance with relevant standards whether they are self imposed, satutory or regulatory.

Our management system is approved by DNV to BS-EN-ISO 9001:2008 standard and is an imperative part of our organisation.

Environmental documentation is available at www.belcom.co.uk/qa-environmental





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