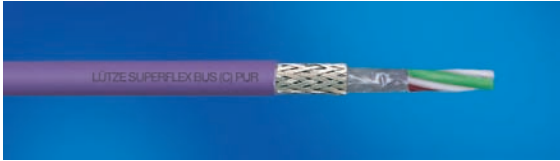


PUR BUS conductors · c-track compatible

LÜTZE SUPERFLEX[®] BUS (C) PUR Profibus



Application

- For the cabling of industrial field bus systems like PROFIBUS DP, SINEC L2, F.I.P.
- For continuous flexible use e.g. in c-tracks or free movement in automation technology, transport and conveyor technology, machine tool manufacture

Properties

- High active and passive interference resistance
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Impedance	150 Ω ± 15 %
Loop resistance	<155 Ω/km
Operating capacitance	< 30 pF/m
Voltage	
Signal	250 V
Supply	300 V
Test voltage	
Signal	1500 V
Supply	3000 V
Temperature range	
moving	-20 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 15
fixed	Cable diameter × 7.5
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1; UL 1581 section VW-1 Flame-Test; CSA FT 1
Halogen-free	according to DIN EN 50264-1; EN 50267-2-1 and EN 60684-2
Approvals	UL approval 60 °C 30 V (see UL article designation)
Note	Instructions for laying of c-track lines in Chapter 2 of catalogue TK1.

Design

- Bare copper wire
- Braid according to AWG
Braid AWG 24/19 = 0.64 mm Ø
- Conductor insulation special polyolefin
- Stranding with filler
- ST static shield
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Special PUR, matt, adhesion-free surface
- Jacket colour violet, RAL 4001

Part-No.	Number of strands/cross-section/ strand colours	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
104215	(1×2×0.64/AWG24/19)StC red, green	8.0	6.7	2.0
104265	(1×2×0.64/AWG24/19)StC UL red, green	8.0	5.5	2.3
104275	(1×2×0.64/AWG24/19+3×0.75)StC UL red, green blue, black greenyellow	9.8	14.4	6.6
With inside jacket, easy stripping				
104287	(1×2×0.64/AWG24/19)StC FC UL red, green	8.0	8.5	2.0

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

Bus cables for Profibus

LÜTZE ELECTRONIC BUS (C) Profibus



Application

- For the cabling of industrial field bus systems like PROFIBUS DP, SINEC L2, F.I.P.
- With solid conductor AWG22/1 for hard wiring or with stranded conductor for moving use without compulsory guide in the automation technology, transport and conveyor technology, machine tool manufacture

Properties

- High active and passive interference resistance
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Impedance	150 Ω ± 15 %
Loop resistance	
Braid AWG 22/7= 0.34 ²	<110 Ω/km
Wire AWG 22/1= 0.34 ²	<110 Ω/km
Braid AWG 24/19= 0.24 ²	<155 Ω/km
Operating capacitance	< 30 pF/m
Voltage	
Signal	250 V
Supply	300 V
Test voltage	
Signal	1500 V
Supply	3000 V
Temperature range	
moving	-5 °C to +70 °C
fixed	-30 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1; UL 1581 section VW-1 Flame-Test; CSA FT 1
Approvals	UL approval 60 °C 30 V (see UL article designation)

Design

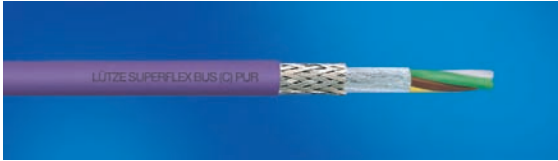
- Bare copper wire
- Braid according to AWG or DIN, solid wire according to DIN
- Braid AWG22/7 0.34 mm² = 0.75 mm ∅
Wire AWG22/1 0.34 mm² = 0.64 mm ∅
Braid AWG24/19 0.24 mm² = 0.64 mm ∅
- Conductor insulation special polyolefin
- Stranding with filler
- ST static shield
- Galvanised copper wire braid, optical coverage ≥ 85 %
- Jacket special thermoplastic, matt, adhesion-free surface
PUR for industrial environment, halogen-free
HM = halogen-free, flame-retardant, low smoke
PE for food areas, halogen-free
Mod-PE can be laid in earth
- Jacket colour violet RAL 4001 or black RAL 9005

Part-No.	Number of strands/cross-section/ strand colours	Jacket colour	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
104214	(1×2×0.64/AWG22/7)StC red, green	PVC violet	7.9	5.3	2.5
104292	(1×2×0.64/AWG22/1)StC red, green	PVC violet	8.1	7.4	2.3
104264	(1×2×0.64/AWG24/19)StC UL red, green	PVC violet	7.9	5.3	2.5
104224	(1×2×0.64/AWG22/7+3×0.75)StC red, green blue, black greenyellow	PVC violet	10.7	14.4	5.7
104290	(1×2×0.64/AWG22/1)StC red, green	PE black	8.0	5.3	2.5
With inside jacket, machinable peel off					
104267	(1×2×0.64/AWG22/1)StC FC red, green	HM violet	8.0	8.8	3.5
104251	(1×2×0.64/AWG22/1)StC FC red, green	PUR violet	8.0	8.8	3.5
104284	(1×2×0.64/AWG22/1)StC FC red, green	Mod-PE black	10.0	12.6	3.5
104291	(1×2×0.64/AWG22/1)StC FC red, green	PE black	8.0	8.8	3.5
104293	(1×2×0.64/AWG22/1)StC FC UL red, green	PVC violet	8.1	9.1	1.9

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PUR BUS conductors · c-track compatible

LÜTZE SUPERFLEX® BUS (C)PUR CAN-BUS, INTERBUS



Application

- For wiring of industrial field bus systems such as CAN-BUS and INTERBUS-S
- For continuous flexible use e.g. in c-tracks or free movement in the automation technology, transport and conveyor technology, machine tool manufacture

Properties

- High active and passive interference resistance
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Impedance	100 or 120 Ω
Loop resistance	
Braid AWG 24/19= 0.24 ²	<155 Ω/km
Braid DIN 0.25 ²	<145 Ω/km
Braid DIN 1.0 ²	<41 Ω/km
Operating capacitance	< 60 pF/m
Voltage	
Signal	300 V
Supply	300 V
Test voltage	
Signal	3000 V
Supply	3000 V
Temperature range	
moving	-20 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1; UL 1581 section VW-1 Flame-Test; CSA FT 1
Halogen-free	according to DIN EN 50264-1; EN 50267-2-1 and EN 60684-2
Approvals	UL approval 80°C 300 V (see UL article designation)
Note	Instructions for laying of c-track lines in Chapter 2 of catalogue TK1.

Design

- Bare copper wire
- Wire according to AWG or DIN
- Conductor insulation special polyolefin
- Conductors stranded pairs, foil banding
- Galvanised copper wire braid, optical coverage ≥ 85 %
- Jacket special-PUR, matt, adhesion-free surface
- Jacket colour violet RAL 4001

Part-No.	Number of strands/cross-section/ strand colours	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
CAN-BUS Impedance 120 Ω				
104202	(1×2×0.25) white/brown	6.1	3.2	2.1
104220	(2×2×0.25/AWG24/19) Star quad Transmission pair: white-brown; green-yellow	6.0	6.7	2.7
104210	(1×2×0.25+3G1.0) BUS: white, brown Supply: red, blue, greenyellow	7.5	11.0	5.1
104252	(1×2×0.25/AWG24/19) UL white/brown	6.1	3.2	2.1
104270	(2×2×0.25/AWG24/19) UL Star quad Transmission pair: white-brown; green-yellow	6.0	5.8	2.4
INTERBUS impedance 100 Ω				
104208	(3×2×0.25) white/brown; green/yellow; grey/pink	7.7	6.0	3.3
104211	(1×2×1.0) Jacket colour black with white numbers Connector black with white numbers	6.8	8.8	3.0
104258	(3×2×0.25/AWG24/19) UL white/brown; green/yellow; grey/pink	7.8	6.0	3.3
104259	(3×2×0.25/AWG24/19+3G1.0) UL white/brown; green/yellow; grey/pink; blue, red, greenyellow	8.3	13.9	8.8

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC BUS conductors

LÜTZE ELECTRONIC BUS (C) Y CAN-BUS, INTERBUS



CANopen



Application

- For wiring of industrial field bus systems such as CAN-BUS and INTERBUS-S
- For hard wiring or moving use without compulsory guide in the automation technology, transport and conveyor technology, machine tool manufacture

Properties

- High active and passive interference resistance
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Impedance	100 or 120 Ω
Loop resistance	
Braid AWG 24/7= 0.22 ²	<165 Ω/km
Braid 0.34 ²	<110 Ω/km
Operating capacitance	< 60 pF/m
Rated voltage	300 V
Test voltage	1500 V
Temperature range	
moving	-5 °C to +70 °C
fixed	-30 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1

Design

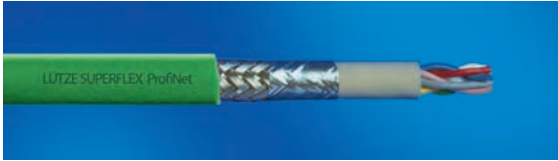
- Bare copper wire
- Wire according to AWG or DIN
- Conductor insulation special polyolefin
- Conductors stranded pairs, foil banding
- Galvanised copper wire braid, optical coverage ≥ 85 %
- Jacket special PVC TM2 according to HD21.1, matt, adhesion-free surface
- Jacket colour violet RAL 4001

Part-No.	Number of strands/cross-section/ strand colours	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
CAN-BUS				
Impedance 120 Ω				
104205	(1×2×0.22/AWG24/7) white/brown	4.7	5.3	2.5
104206	(2×2×0.22/AWG24/7) white/brown, green/yellow	7.0	4.3	2.4
104238	(2×2×0.34) white/brown; green/yellow	10.5	11.8	4.7
INTERBUS				
impedance 100 Ω				
104207	(3×2×0.22/AWG24/7) white/brown, green/yellow, grey/pink	7.5	5.5	3.2

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

BUS conductors · c-track compatible

LÜTZE SUPERFLEX[®] ETHERNET BUS (C) PUR



Application

- For the cabling of industrial field bus systems with the globally accepted TCP/IP protocol
- Applicable in automation technology, transport and conveyor technology, machine tool manufacture
- For continuous flexible application e.g. in c-tracks or free movement

Properties

- High active and passive interference resistance
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Impedance	100 Ω ± 10 % (1–100 MHz)
Loop resistance	
Braid AWG 23/19= 0.30 ²	<130 Ω/km
Braid AWG 24/19= 0.24 ²	<155 Ω/km
Braid AWG 26/19= 0.14 ²	<280 Ω/km
Braid AWG 22/7= 0.34 ²	<110 Ω/km
Operating capacitance	< 50 pF/m
Rated voltage	250 V
Test voltage	1500 V
Temperature range	
moving	-25 °C to +70 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1; UL 1581 section VW-1 Flame-Test; CSA FT 1
Halogen-free	according to DIN EN 50264-1; EN 50267-2-1 and EN 60684-2
Approvals	UL approval 30 V 80°C (see article designation UL)
Note	Instructions for laying of c-track lines in Chapter 2 of catalogue TK1.

Design

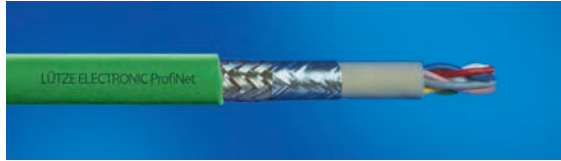
- Bare copper wire
- Braid according to AWG
- Conductor insulation special polyolefin
- ST static shield
- Halogen-free inside jacket
- Galvanised copper wire braid, optical coverage ≥ 85 %
- Jacket special-PUR, matt, adhesion-free surface
- Jacket colour violet RAL 4001; green RAL 6018; black RAL 9005

Part-No.	Number of strands/cross-section/ strand colours	Jacket colour	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
SUPERFLEX Fast Ethernet / ProfiNet					
104304	(2×2×AWG23/19)StC Cat5 UL Star quad; ProfiNet Transmission pair white/blue; yellow/ orange	PUR green	6.6	7.5	3.7
104246	(4×2×AWG24/19) Cat5 UL white/brown, green/yellow, grey/pink, blue/red	PUR violet	9.6	12.5	5.7
104245	(2×2×AWG24/19) Cat5 UL Star quad Transmission pair white/brown; green/ yellow	PUR violet	6.1	6.5	3.7
104242	(4×2×AWG24/19) Cat5 white/brown; green/yellow; grey/pink; blue/red	PUR violet	9.6	12.5	5.7
104241	(2×2×AWG24/19) Cat5 Star quad Transmission pair white/brown; green/ yellow	PUR violet	6.1	6.5	3.7
104303	(2×2×AWG22/7)StC Cat5 UL Star quad; ProfiNet Transmission pair white/blue; yellow/ orange	PUR green	6.5	6.1	3.1
104326	(4×2×AWG26/19) Cat5e whiteblue/blue, whiteorange/orange, whitegreen/green, whitebrown/brown	PUR green	6.3	5.2	3.0
104337	(4×2×AWG24/19) Cat5e whiteblue/blue, whiteorange/orange, whitegreen/green, whitebrown/brown	PUR green	7.8	6.8	5.5
For Siemens Drive-Cliq[®] system					
104310	(2×2×AWG26+2×AWG22)	PUR green	6.8	7.3	3.4
104328	(2×2×AWG24+2×AWG22)	PUR black	6.8	7.3	3.8

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

BUS cables

LÜTZE ELECTRONIC ETHERNET BUS (C) PUR LÜTZE ELECTRONIC ETHERNET BUS (C) PVC



Application

- For the cabling of industrial field bus systems with the globally accepted TCP/IP protocol
- Applicable in automation technology, transport and conveyor technology, machine tool manufacture
- For continuous flexible application e.g. in c-tracks or free movement

Properties

- High active and passive interference resistance
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Impedance	100 Ω ± 10 % (1–100 MHz)
Loop resistance	
Wire AWG 22/1= 0.34 ²	<110 Ω/km
Braid AWG 24/7= 0.22 ²	<165 Ω/km
Braid AWG 26/7=0.14 ²	<273 Ω/km
Operating capacitance	< 50 pF/m
Rated voltage	250 V
Test voltage	1500 V
Temperature range	
moving	-5 °C to +70 °C
run	-30 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1; UL 1581 section VW-1 Flame-Test; CSA FT 1
Halogen-free	according to DIN EN 50264-1; EN 50267-2-1 and EN 60684-2
Approvals	UL approval 30 V 80 °C (see article designation UL)

Design

- Bare copper wire
- Braid according to AWG
- Conductor insulation special polyolefin
- ST static shield
- Galvanised copper wire braid, optical coverage ≥ 85 %
- Jacket special-PUR, matt, adhesion-free surface or PVC
- Jacket colour violet RAL 4001; green RAL 6018

Part-No.	Number of strands/cross-section/ strand colours	Jacket colour	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
ELECTRONIC Fast Ethernet / ProfiNet					
104247	(2×2×0.22/AWG24/7) Cat5 UL Star quad Transmission pair white/brown; green/ yellow	PUR violet	6.1	6.5	2.5
104243	(2×2×0.22/AWG24/7) Cat5 Star quad Transmission pair white/brown; green/ yellow	PUR violet	6.1	6.5	2.5
104301	(2×2×0.64/AWG22/1)StC Cat5 UL Star quad, FC, ProfiNet type A Transmission pair white/blue, yellow/ orange	PVC green	6.5	6.5	3.7
104307	(2×2×0.34/AWG22/7)StC Cat5 UL Star quad, FC, ProfiNet type B Transmission pair white/blue, yellow/ orange	PVC green	6.5	6.5	3.1
104327	(4×2×AWG26/7 StC) Cat5e whiteblue/blue, whiteorange/orange, whitegreen/green, whitebrown/brown	PUR green	6.3	5.0	3.0
104335	(4×2×AWG26/7 StC) Cat5e whiteblue/blue, whiteorange/orange, whitegreen/green, whitebrown/brown	PVC green	6.3	5.4	3.0
104336	(4×2×AWG24/7 StC) Cat5e whiteblue/blue, whiteorange/orange, whitegreen/green, whitebrown/brown	PVC green	7.6	6.7	5.5
104338	(4×(2×AWG26/7)StC) Cat6 whiteblue/blue, whiteorange/orange, whitegreen/green, whitebrown/brown	PVC green	6.4	5.3	3.3
104339	(4×(2×AWG26/7)StC) Cat7 whiteblue/blue, whiteorange/orange, whitegreen/green, whitebrown/brown	PUR green	7.0	6.1	3.3
For Siemens Drive-Cliq® system					
104313	(2×2×AWG26+2×AWG22)	PVC green	6.8	7.3	3.4
104311	(2×2×AWG26+2×AWG22)	PUR green	6.8	7.3	3.4

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PUR BUS conductors · c-track compatible

LÜTZE SUPERFLEX® DeviceNet™ (C) PUR



Application

- For the wiring of industrial devices, sensors, control devices (SPS), valves
- DeviceNet™ is the leading BUS system for industry automation in the USA
- For continuous flexible application e.g. in c-tracks or free movement in the automation technology, transport and conveyor technology, machine tool manufacture

Properties

- 2-pair cable: The pair with the smaller cross section serves for the data transmission, the pair with the larger cross section is for the power supply
- High active and passive interference resistance through double shielding (StC)
- Free from silicon paint wetting disruptive substances (LABS-free)
- RoHS-compliant

Technical data

Impedance	120 Ω ± 10 %
Operating capacitance	< 40 pF/m
Rated voltage	300 V
Test voltage	3000 V
Temperature range	
moving	-20 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1; UL 1581 section VW-1 Flame-Test; CSA FT 1
Halogen-free	according to DIN EN 50264-1; EN 50267-2-1 and EN 60684-2
Approvals	UL approvals 300 V 80°C
Note	Instructions for laying of c-track lines in Chapter 2 of catalogue TK1.

Design

- Bare copper wire
- Conductor insulation special polyolefin
- BUS element statically shielded
- Overall shield: static shield (foil) braid from galvanised Cu wire, optical coverage ≥ 85 %
- Jacket special-PUR, matt, adhesion-free surface
- Jacket colour violet RAL 4001

Part-No.	Number of strands/cross-section/strand colours	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
104279	((2×2)+(2×2))StC-Thick 0.75: blue, white 1.5: red, black	11.9	21.5	7.1
104289	((2×2)+(2×2))StC-Thin 0.22: blue, white 0.34: red, black	6.8	8.5	2.8

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

BUS cables

LÜTZE ELECTRONIC ASI BUS



Application

- System cables for connection of actuator interface components
- Application in the automation technology, in tool and machine construction, plants and device construction, transport and conveyor technology

Properties

- Inverse-polarity-proof flat cable
- Fast contacting through penetration technology
- In the TPE design especially suitable in areas in which oils, greases and cooling lubricants occur
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Rated voltage	300 V
Test voltage	2000 V
Temperature range	
EPDM moving	-30 °C to +85 °C
EPDM fixed	-40 °C to +85 °C
PUR moving	-30 °C to +80 °C
PUR fixed	-40 °C to +80 °C
TPE moving	-5 °C to +70 °C
TPE fixed	-30 °C to +70 °C
Loop resistance	27,4 mΩ/m
Cu-Index	2.9 kg/100 m
Weight	6.8 kg/100 m

Design

- Bare copper wire 1.5 mm²
- Wire according to VDE 0295 class 5
- Conductor insulation coloured, brown and blue
- Moulded outer jacket
- Jacket colour black: for auxiliary power 30 V_{DC}
yellow: data and energy transmission

Part-No.	Number of strands/cross-section	Insulation	Jacket material	Jacket colour
1.5 mm²				
104203	2×1.5	EPDM	PUR	yellow
104204	2×1.5	EPDM	PUR	black
104216	2×1.5	PVC	TPE	yellow
104217	2×1.5	PVC	TPE	black
104219	2×1.5	EPDM	EPDM	yellow
104218	2×1.5	EPDM	EPDM	black

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC