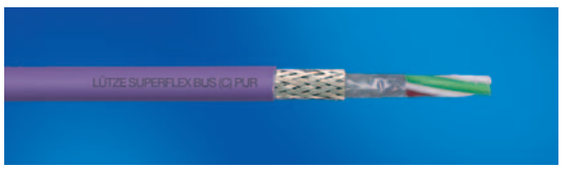
LÜTZE SUPERFLEX® BUS (C)PUR
Profibus



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Application
- For the cabling of industrial field bus systems like PROFIBUS DP, SINEC L2, F.I.P.
- With stranded wire for moving use in automation technology, transport and conveyor technology, tool and machine construction

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
run	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 T. 265-2-1;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 article designation)

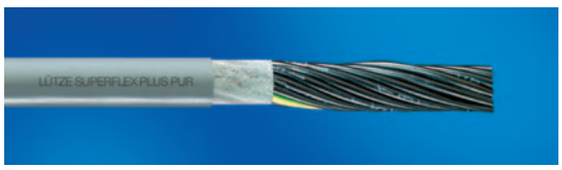
Design
- Bare copper wire
- Braid according to AWG
  Braid AWG 24/19 = 0.64 mm ∅
- Conductor insulation special polyolefin
- Stranding with filler
- ST static shield
- Galvanised copper wire braid, optical coverage ≥ 85 %
- Special PUR, matt, adhesion-free surface
- Jacket colour violet, RAL 4001

Part-No.	Number of strands/cross-section/ strand colours	Outer-∅ 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 green/yellow	9.8	14.4	6.6
With inside jacket, machinable peel off				
104287	(1×2×0,64/AWG24/19)StC **UL** red, green	8.0	8.5	2.0

CE These products are in conformity to the EC Low Voltage Directive73/23/EWG or 93/68/EWG respectively

PUR C-track cable · For the highest requirements

LÜTZE SUPERFLEX® PLUS N PUR



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Application
- Machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions, aggressive coolants and lubricants
- Especially for industrial environments, in machines, plant and device construction

Properties
- Flame-retardant, self-extinguishing
- halogen-free, no corrosive gases
- Very good alternating bending strength
- Good pressure and roll-over resistance
- Low adhesion, abrasion-proof, nick-resistant, tear-propagation-resistant
- Hydrolisis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- Good industrial- and salt water resistance
- Excellent coolant and lubricant resistance
- Widely resistant to oils, greases, alcohol-free benzines and kerosene
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

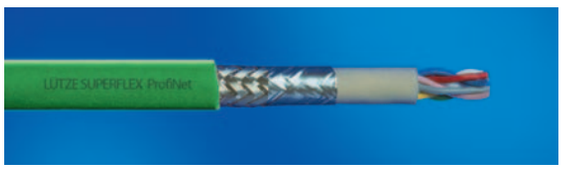
UL approval	300 V 80 °C (0.5 – 1.0 mm^2) 600 V 80 °C (starting with 1.5 mm^2)
Voltage	
U_0/U	300/500 V
UL	300 V (0,5 – 1,0 mm^2) 600 V (ab 1,5 mm^2)
Test voltage	
3000 V	0,5 mm – 1,0 mm^2
6000 V	from 1,5 mm^2
Isolation resistance	min. 100 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 7.5
fixed	Cable diameter × 4
Radiation-resistance	$5×10^7$ cJ/kg
Burning behaviour	Flame-retardant according to VDE 0482 T 265-2-1; 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

Design
- Bare copper wire, finest multi-strand according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE conductor insulation, UL qualified
- Conductors black with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
- Conductors twisted without mechanical stress, layer pitch optimised
- Non-woven material over the stranded cable
- Full polyurethane jacket, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm^2				
113431	2×0,5 OZ	4.7	2.7	1.0
113441	3×0,5	4.9	3.2	1.4
113442	4×0,5	5.2	4.1	1.9
113443	5×0,5	5.6	5.5	2.4
113444	7×0,5	6.6	6.4	3.3
113446	12×0,5	8.0	9.6	5.7
113438	18×0,5	9.0	13.8	8.6
113447	25×0,5	10.8	18.2	12.1
0.75 mm^2				
113432	2×0,75 OZ	5.5	5.4	1.4
113445	3×0,75	5.6	5.7	2.2
113439	3×0,75 OZ	5.6	5.7	2.2
113435	4×0,75	6.1	6.1	2.9
113422	5×0,75	6.5	8.5	3.6
113437	7×0,75	7.8	9.0	6.1
113425	12×0,75	9.1	14.0	8.6
113428	18×0,75	11.0	20.4	13.0
113448	25×0,75	13.0	27.0	18.0
1.0 mm^2				
113484	2×1,0 OZ	5.8	4.7	2.0
113400	3×1,0	6.1	5.0	2.9
113433	4×1,0	6.6	7.2	4.0
113401	5×1,0	7.2	8.5	4.8
113402	7×1,0	8.7	11.5	6.7
113403	12×1,0	10.1	18.0	11.5
113404	18×1,0	11.6	27.0	17.3
113405	25×1,0	14.1	33.9	24.0
1.5 mm^2				
113485	2×1,5 OZ	6.8	7.7	2.9
113406	3×1,5	8.0	7.8	4.4
113412	4×1,5	8.3	9.5	5.9
113407	5×1,5	9.1	11.5	7.4
113408	7×1,5	10.0	17.5	10.3
113409	12×1,5	12.6	26.5	17.6
113410	18×1,5	14.9	35.9	26.5
113411	25×1,5	17.6	52.0	36.9
2.5 mm^2				
113483	3×2,5	9.2	12.1	7.3
113415	4×2,5	9.9	14.3	9.6
113416	5×2,5	10.7	17.5	12.0
113417	7×2,5	12.6	24.5	16.8
113426	12×2,5	15.5	39.0	28.8
113479	18×2,5	17.6	58.1	43.8

CE These products are in conformity with the EC Low Voltage Directive73/23/EWG or 93/68/EWG respectively

LÜTZE SUPERFLEX® ETHERNET BUS (C) PUR
LÜTZE ELECTRONIC ETHERNET BUS (C) PUR



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Application
- For the cabling of industrial field bus systems with the globally accepted TCP/IP protocol
- Applicable in the automation technology, transport and conveyor technology, machine tool manufacture
- **SUPERFLEX PUR**
  For continuous flexible application e.g. in c-tracks or free movement
- **ELECTRONIC PUR**
  for hard wiring or for moving use without compulsory guide

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 23/19= 0.30^2	<130 Ω/km
Wire AWG 24/19= 0.24^2	<155 Ω/km
Wire AWG 24/7= 0.22^2	<165 Ω/km
Operating capacitance	< 50 pF/m
Nominal 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 T. 265-2-1;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

Design
- Bare copper wire
- Braid according to AWG
- Conductor insulation special polyolefin
- All SUPERFLEX cables with inside jacket
- ST static shield
- Galvanised copper wire braid, optical coverage ≥ 85 %
- Jacket special-PUR, matt, adhesion-free surface
- 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
SUPERFLEX Fast Ethernet / ProfiNet					
104304	(2×2×0,3/AWG23/19)StC Cat5 **UL** Star quad; ProfiNet Transmission pair white/blue; yellow/ orange	PUR green	6.6	7.5	3.7
104246	(4×2×0,22/AWG24/19) Cat5 **UL** white/brown; green/yellow; grey/pink; blue/red	PUR violet	9.6	12.5	5.7
104245	(2×2×0,22/AWG24/19) Cat5 **UL** Star quad Transmission pair white/brown; green/ yellow	PUR violet	6.1	6.5	3.7
104242	(4×2×0,22/AWG24/19) Cat5 white/brown; green/yellow; grey/pink; blue/red	PUR violet	9.6	12.5	5.7
104241	(2×2×0,22/AWG24/19) Cat5 Star quad Transmission pair white/brown; green/ yellow	PUR violet	6.1	6.5	3.7
ELECTRONIC Fast Ethernet / ProfiNet					
104303	(2×2×0,3/AWG23/19)StC Cat5 **UL** Star quad; ProfiNet Transmission pair white/blue; yellow/ orange	PUR green	6.5	7.5	3.7
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

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LÜTZE SUPERFLEX® DeviceNet™ (C) PUR

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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
Nominal voltage	300 V
Test voltage	3000 V
Temperature range	
moving	-20 °C to +80 °C
run	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 T. 265-2-1;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

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-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
104279	((2×0,75)+(2×1,5))StC-Thick 0.75: blue, white 1.5: red, black	11.9	21.5	7.1
104289	((2×0,22)+(2×0,34))StC-Thin 0.22: blue, white 0.34: red, black	6.8	8.5	2.8

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