

Bus and network cables

For use in field bus systems

LUTZE-ELECTRONIC BUS (C)Y
LUTZE-ELECTRONIC ASI BUS

LUTZE-SUPERFLEX® BUS (C)Y
LUTZE-SUPERFLEX® BUS (C)PUR
LUTZE-SUPERFLEX® BUS (C)X PUR
LUTZE-SUPERFLEX®-ETHERNET BUS (C)PUR

Use

For wiring industrial field bus systems such as Profibus, Interbus, F.I.P., SINEC L2 and CAN bus.

Application

Automation technology, machine tools, machine and plant construction, transport and conveying technology, either for fixed routing or continuously moving deployment, e.g. cable tracks.

Technical Data

| | |
|---------------------------------|---|
| Wire conductor structure | E copper uninsulated and/or tin-plated fine and/or superfine strand compliant with VDE 0295 class 5/6 or IEC 60228 class 5/6 |
| Conductor insulation | PE; PP; TPE; PVC or rubber |
| Stranding | Each data pair paired |
| Overall shield | Braiding made of tin-plated copper wires, optical covering approx. 85%. |
| Outer jacket | Special mixture on the basis of PVC, PUR or TPE, violet RAL 4001 |
| Voltage | Signal cable: 250 V supply cable: 300 V |
| Test voltage | Signal cable: 1500 V supply cable: 3000 V |
| Isolation resistance | min. 20 MΩ × km |
| Temperature range | PVC moving - 5 °C to + 70 °C fixed - 30 °C to + 80 °C PUR moving - 20 °C to + 80 °C fixed - 40 °C to + 80 °C |
| Bending radius | moving/fixed: cable diameter × 10/ × 4 shielded version × 12/ × 6 |
| Standards | manufactured based on VDE 0800, 0812, 0814 and 0817 as well as UL appr. 2094, 2464, 20236 and 20236 |
| Packaging | 50 m, 100 m rings, reels |
| Stability | PVC for the most part resistant to oils and greases PUR resistant to mineral oils and greases Special TPE resistant to oils, greases and coolant |

Selection table BUS and network cables

| | Bus cable | LUTZE-ELECTRONIC PVC | | | | | LUTZE-ELECTRONIC ASI BUS | |
|--|----------------------|--|--|--|--|---|---|---|
| | Outer diameter | 4.6 (1 × 2 × 0.22) AWG 24 Part no.: | 7.9 (1 × 2 × 0.34) AWG 22 Part no.: | 7.0 (2 × 2 × 0.22) AWG 24 Part no.: | 7.5 (3 × 2 × 0.22) AWG 24 Part no.: | 10.7 (3×0.75+ 1×2×0.34) AWG 22 – 18 Part no.: | AS-I flat cable 2 × 1.5 TPE (ye, rd) AWG 16 Part no.: | AS-I flat cable 2 × 1.5 TPE (bk) AWG 16 Part no.: |
| Bus system | Standard | | | | | | | |
| AS interface | | | | | | | 104216 104223 | 104217 |
| Bitbus – Modnet 1/SFB | IEEE 1118 | | | 104206 | | | | |
| CAN | ISO 11898 | 104205 | | 104206 | 104207 | | | |
| DIN measurement bus | DIN 66348 | | | | 104207 | | | |
| F.I.P. | | | 104214 | | | | | |
| InterBus – Modnet 1/IS – SUCOnetS | DIN E 19258 | | | | 104207 | | | |
| LON | | | | 104206 | | | | |
| Modbus | | | | 104206 | | | | |
| Modbus plus | | 104205 | | 104206 | | | | |
| Profibus – Modnet 1/P – Modulink P – Sinec L2-FMS – SUCOnet – VariNet P | DIN 19245 T1 + T2 | 104264 104214 104269 | 104292 104293 | | | | | |
| Profibus-DP – Sinec L2-DP | DIN 19245 T3 | | 104214 | | | 104224 | | |

| | Bus cable | LUTZE-SUPERFLEX® for cable tracks | | | | | | | | |
|--|--------------------------|---|---|---|---|---|--|--|--|--|
| | Outer diameter of jacket | 6.0 (1×2× 0.25) PUR AWG 24 Part no.: | 8.6 (1×2× 0.34) PUR AWG 22 Part no.: | 5.9 (2×2× 0.25) PUR AWG 24 Part no.: | 7.8 (3×2× 0.25) PVC AWG 24 Part no.: | 7.7 (3×2× 0.25) PUR AWG 24 Part no.: | 9.8 (3×1.0+ 3×2×0.25) PUR/X PUR AWG 24 – 18 Part no.: | 10.7 (3×0.75+ 1×2×0.34) PUR/X PUR AWG 22 – 18 Part no.: | 13.0 2×(1.0)+ 2×0.75 PUR AWG 18 Part no.: | 7.5 (2×0.94) + 2×0.22) PUR Part no.: |
| Bus system | Standard | | | | | | | | | |
| AS interface | | see also LUTZE-ELECTRONIC ASI BUS | | | | | | | | |
| Bitbus – Modnet 1/SFB | IEEE 1118 | | | 104220 | | | | | | |
| CAN | ISO 11898 | 104252 | | 104220 S 104270 | 104200 | 104208 | | | | |
| DIN measurement bus | DIN 66348 | | | | 104200 | 104208 | | | | |
| F.I.P. | | | 104215 | | | | | | | |
| InterBus – Modnet 1/IS – SUCOnetS | DIN E 19258 | | | | 104200 | 104208 | 104229 104259 | | | |
| LON | | | | 104220 | | | | | | |
| Modbus | | | | 104220 | | | | | | |
| Modbus plus | | 104202 | | 104220 | | | | | | |
| Profibus – Modnet 1/P – Modulink P – Sinec L2-FMS – SUCOnet P – VariNet P | DIN 19245 T1 + T2 | 104202 104265 | | | | | | | | |
| Profibus-DP – Sinec L2-DP | DIN 19245 T1 + T3 | 104215 104265 | | | | | 104225 104227 | | | |
| CAN Device Net Trunk | | | | | | | | 104279 104229 | | |
| Device Net Drop | | | | | | | | | | 104289 |

LUTZE-ELECTRONIC BUS (C)Y

PVC bus cable with **violet** outer jacket.



Use

For wiring industrial field bus systems, e.g. Profibus.

Application

Automation technology, machine tools, machine and plant construction, transport and conveying technology, either for fixed routing or moving deployment. Bus systems, see selection table for bus and network cables.

Technical data page as well as selection table bus and network cable, see page 11.2



| Part-No. | Cable construction | Bus system | Outer \varnothing ca. mm | Loop resistance max. Ω /km | Operating capacitance (800 Hz) nF/km | Impedance | Wire color | Weight kg/100 m | Cu-Index kg/100 m |
|--|-------------------------------------|------------|-------------------------------|---|---|-----------|------------------------|-------------------------------------|----------------------|
| LUTZE-ELECTRONIC-BUS (C) Y Desina | | | | | | | | AWG 22 / 0,34 mm² | |
| 104214*) | (1×2×0,64) | Profibus | 7,9 | 110 | 30 | 150 ± 10% | rd, gn | 5,3 | 2,45 |
| 104224 | (3×0,75 + 1×2×0,34) | Profibus | 10,7 | 110 | 30 | 150 ± 10% | bl, bk, gnye + rd, gn | 14,4 | 5,65 |
| LUTZE-ELECTRONIC-BUS (C) Y UL | | | | | | | | AWG 24 / 0,22 mm² | |
| 104205*) | (1×2×0,22) ²⁾ | CAN-BUS | 4,6 | 186 | 60 | 100 – 120 | wh, br | 2,9 | 1,38 |
| 104206*) | (2×2×0,22) ²⁾ | CAN-BUS | 7,0 | 186 | 60 | 100 – 120 | wh, br, gr, pk | 4,3 | 2,40 |
| 104207*) | (3×2×0,22) ²⁾ | Interbus | 7,5 | 186 | 60 | 100 – 120 | wh, br, gn, ye, gr, pk | 5,5 | 3,87 |
| 104264*) | (1×2×0,64) ¹⁾²⁾ | Profibus | 7,9 | 150 | 30 | 150 ± 10% | rd, gn | 5,3 | 2,45 |
| 104274*) | (3×0,75 + 1×2×0,34) ¹⁾²⁾ | Profibus | 10,7 | 110 | 30 | 150 ± 10% | bl, bk, gnye + rd, gn | 14,4 | 5,65 |

Note

¹⁾ 0.34 mm² corresponds to conductor diameter of 0.64 mm



LUTZE-ELECTRONIC ASI BUS

ASI bus cable



Use

system cable for connection of actor-sensor-interface components.
In the TPE version, particularly suitable in areas in which oils, greases and cooling lubricants are used.

Application

Automation technology, machine tools, machine and plant construction, transport and conveying technology, either for fixed routing or moving deployment.
Also suitable as flat cable for cable tracks.
Bus systems, see selection table for bus and network cables.

Technical data page
as well as selection table bus and network cable,
see page 11.2

| Part-No. | Cable construction | Bus system | Power supply | Conductor insulation | Wire color | Outer jacket | Jacket color | Weight | | Cu-Index |
|---------------------------------|--------------------|------------|--------------|----------------------|------------|---------------|--------------|------------------------------------|----------|----------|
| | | | | | | | | kg/100 m | kg/100 m | |
| LUTZE-ELECTRONIC ASI BUS | | | | | | | | AWG 16 / 1,5 mm² | | |
| 104203*) | 2×1,5 | ASIBUS | 48 V | Rubber | bl, bn | PUR | yellow | 6,8 | 2,88 | |
| 104204*) | 2×1,5 | ASIBUS | 24 V | Rubber | bl, bn | PUR | black | 6,8 | 2,88 | |
| 104216*) | 2×1,5 | ASIBUS | 48 V | PVC | bl, bn | TPE | yellow | 6,8 | 2,88 | |
| 104217*) | 2×1,5 | ASIBUS | 24 V | PVC | bl, bn | TPE | black | 6,8 | 2,88 | |
| 104219*) | 2×1,5 | ASIBUS | 48 V | Rubber | bl, bn | EPDM (rubber) | yellow | 6,8 | 2,88 | |
| 104218*) | 2×1,5 | ASIBUS | 24 V | Rubber | bl, bn | Rubber | black | 6,8 | 2,88 | |

LUTZE-SUPERFLEX® BUS (C)Y

PVC bus cable track cable with **violet** outer jacket.



Use

For wiring industrial field bus systems, e.g. CAN Device Net.

Application

Automation technology, machine tools, machine and plant construction, transport and conveying technology, for continuously moving deployment, e.g. in cable tracks. Bus systems, see selection table for bus and network cables.

Technical data page as well as selection table bus and network cable, see page 11.2



DESINA



| Part-No. | Cable construction | Bus system | Outer Ø ca. mm | Loop resistance max. Ω /km | Operating capacitance (800 Hz) nF/km | Impedance | Wire color | Weight kg/100 m | Cu-Index kg/100 m |
|-------------------------------------|--------------------------|------------|----------------|----------------------------|--------------------------------------|-----------|------------------------|-------------------------------------|-------------------|
| LUTZE-SUPERFLEX® BUS (C)Y | | | | | | | | AWG 24 / 0,25 mm² | |
| 104200*) | (3×2×0,25) | Interbus | 7,8 | 160 | 60 | 100 – 120 | wh, br, gn, ye, gr, pk | 5 | 3,7 |
| LUTZE-SUPERFLEX®-BUS (C)Y UL | | | | | | | | AWG 24 / 0,25 mm² | |
| 104250*) | (3×2×0,25) ¹⁾ | Interbus | 7,8 | 160 | 60 | 100 – 120 | wh, br, gn, ye, gr, pk | 5 | 3,7 |

Note



LUTZE-SUPERFLEX® BUS (C)PUR

– halogen-free –

PUR bus cable track cable with **violet** outer jacket.

Use

For wiring industrial field bus systems, e.g. Profibus, Interbus and CAN Device Net.

Application

Automation technology, machine tools, machine and plant construction, transport and conveying technology, for continuously moving deployment, e.g. in cable tracks. Bus systems, see selection table for bus and network cables.

Technical data page as well as selection table bus and network cable, see page 11.2



| Part-No. | Cable construction | Bus system | Outer Ø ca. mm | Loop resistance max. Ω /km | Operating capacitance (800 Hz) nF/km | Impedance | Wire color | Weight kg/100 m | Cu-Index kg/100 m |
|--|---|------------|----------------|----------------------------|--------------------------------------|-----------|---------------------------------------|-------------------------------------|-------------------|
| LUTZE-SUPERFLEX® BUS (C)PUR | | | | | | | | AWG 24 – 18 / 0,25 – 1,0 mm² | |
| 104202*) | (1×2×0,25) | CAN-BUS | 6,0 | 159,8 | 60 | 100 – 120 | wh, br | 5 | 1,40 |
| 104220*) | (2×2×0,25) | CAN-BUS | 5,9 | 159,8 | 60 | 100 – 120 | wh, br, gr, pk | 5,8 | 2,35 |
| 104208*) | (3×2×0,25) | Interbus | 7,7 | 159,8 | 60 | 100 – 120 | wh, br, gn, ye, gr, pk | 6,9 | 2,85 |
| 104215*) | (1×2×0,25/0,64Ø) | Profibus | 8,0 | 150 | 30 | 150 ± 10% | rd, gn | 6,7 | 2,45 |
| 104225 | (3×0,75 + 1×2×0,25/0,64Ø) ¹⁾ | Profibus | 10,7 | 150 | 30 | 150 ± 10% | bk, bl, gnye + rd, gn | 14,4 | 6,53 |
| 104211*) | (1×2×1,0) ²⁾³⁾ | Interbus | 6,6 | 39,5 | 60 | 100 – 120 | bk with wh printed numbering 1+2 | 11,2 | 2,95 |
| 104229*) | (2×(1,0) + (2×0,75)) | CAN-BUS | 13,0 | 46 | 40 | 120 ± 10% | bl, wh + rd, bk | 19,5 | 10,60 |
| 104210 | (3×1,0 + 1×2×0,25) | CAN-BUS | 7,5 | 159,8 | 60 | 100 – 120 | rd, bl, gnye + wh, br | 11,5 | 7,40 |
| 104209 | (3×1,0 + 3×2×0,25) | Interbus | 9,8 | 159,8 | 60 | 100 – 120 | rd, bl, gnye + wh, br, gn, ye, gr, pk | 13,9 | 8,40 |
| LUTZE-SUPERFLEX®-BUS (C) PUR UL | | | | | | | | AWG 24 – 18 / 0,25 – 1,0 mm² | |
| 104252*) | (1×2×0,25) ⁴⁾ | CAN-BUS | 6,0 | 159,8 | 60 | 100 – 120 | wh, br | 5 | 1,40 |
| 104270*) | (2×2×0,25) ⁴⁾ | CAN-BUS | 7,4 | 159,8 | 60 | 100 – 120 | wh, br, gr, pk | 5,8 | 2,35 |
| 104258*) | (3×2×0,25) ⁴⁾ | Interbus | 7,7 | 159,8 | 60 | 100 – 120 | wh, br, gn, ye, gr, pk | 6,9 | 2,85 |
| 104265*) | (1×2×0,25/0,64Ø) ¹⁾⁴⁾ | Profibus | 8,0 | 150 | 30 | 150 ± 10% | rd, gn | 5,5 | 3,28 |
| 104275 | (3×0,75 + 1×2×0,25/0,64Ø) ¹⁾⁴⁾ | Profibus | 9,8 ±0,2 | 150 | 30 | 150 ± 10% | bk, bl, gnye + rd, gn | 14,4 | 6,53 |
| 104261*) | (1×2×1,0) ²⁾³⁾⁴⁾ | Interbus | 6,6 | 39,5 | 60 | 100 – 120 | bk with wh printed numbering 1+2 | 11,2 | 2,95 |
| 104279*) | (2×(1,0) + (2×0,75)) ⁴⁾ | CAN-BUS | 13,0 | 46 | 40 | 120 ± 10% | bl, wh + rd, bk | 19,5 | 10,60 |
| 104260 | (3×1,0 + 1×2×0,25) ⁴⁾ | CAN-BUS | 7,5 | 159,8 | 60 | 100 – 120 | rd, bl, gnye + wh, br | 11,5 | 7,40 |
| 104259 | (3×1,0 + 3×2×0,25) ⁴⁾ | Interbus | 8,3 | 159,8 | 60 | 100 – 120 | rd, bl, gnye + wh, br, gn, ye, gr, pk | 13,5 | 8,40 |

Note

¹⁾ 0.34 mm² corresponds to conductor diameter of 0.64 mm

²⁾ Special color outer jacket black

³⁾ not halogen-free



LUTZE-SUPERFLEX® BUS (C)X PUR

PUR bus cable track cable with irradiation crosslinked violet outer jacket.



Use

For wiring industrial field bus systems, e.g. Profibus, Interbus with integrated power supply.

Application

Automation technology, machine tools, machine and plant construction, transport and conveying technology, for continuously moving deployments, e.g. cable tracks. Irradiation crosslinking means that, above all in the short-time range, the best possible mechanical, chemical and thermal properties are achieved. Bus systems, see selection table for bus and network cables.

Technical data page as well as selection table bus and network cable, see page 11.2

| Part-No. | Cable construction | Bus system | Outer Ø ca. mm | Loop resistance max. Ω /km | Operating capacitance (800 Hz) nF/km | Impedance | Wire color | Weight kg/100 m | Cu-Index kg/100 m |
|--------------------------------------|---------------------------------|------------|----------------|----------------------------|--------------------------------------|-----------|---------------------------------------|-----------------|-------------------|
| LUTZE-SUPERFLEX® BUS (C)X PUR | | | | | | | AWG 24 – 18 / 0,25 – 1,0 mm² | | |
| 104227 | (3×0,75+1×2×0,34) ¹⁾ | Profibus | 10,7 | 110 | 30 | 150 ± 10% | bk, bl, gnye + rd, gn | 14,4 | 6,53 |
| 104226 | (3×1,0+3×2×0,25) | Interbus | 9,8 | 159,8 | 60 | 100 – 120 | rd, bl, gnye + wh, br, gn, ye, gr, pk | 11,5 | 7,40 |

Note

¹⁾ = 0.34 mm² corresponds to conductor diameter of 0.64 mm