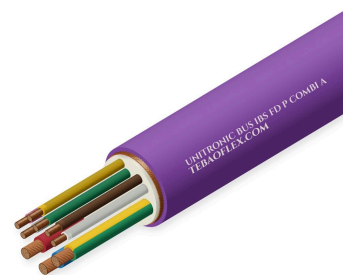


industrial data rf cable series

INTERBUS FD P Combi

Continuous-Flex PUR Hybrid Data & Power Drag-Chain Cable

EN 50254 INTERBUS 100 Ω $3 \times 2 \times 0.25 \text{ mm}^2$ data + $3 \times 1.0 \text{ mm}^2$ power continuous-flex PUR cable



EN 50254 / IEC 61158 INTERBUS

$3 \times 2 \times 0.25 \text{ mm}^2$ (100 Ω) + $3 \times 1.0 \text{ mm}^2$

FD P Drag-Chain PUR · RAL 4001

Application

Continuous-flex drag-chain INTERBUS Remote Bus hybrid cable (UNITRONIC BUS IBS FD P COMBI A) per IEC 61158-2 with $3 \times 2 \times 0.25 \text{ mm}^2$ 100 Ω RS-485 data pairs plus $3 \times 1.0 \text{ mm}^2$ 24 V DC power cores, $\geq 85\%$ tinned braid, and UL AWM 20236 halogen-free PUR sheath.

Typical uses: Automotive Body-in-White & Welding Lines, Machine Tools & Transfer Gantries, Automated High-Bay Warehouses, Woodworking & Packaging Machinery, Phoenix Contact INTERBUS Remote I/O

Construction



Cross-section, not to scale

- 1 Superfine stranded bare copper data & power cores
- 2 Low-capacitance PE (data) & polyolefin (power) insulation
- 3 Core fillers & non-woven sliding fleece wrap
- 4 Overall tinned copper wire braid screen
- 5 Halogen-free polyurethane (TMPU) outer sheath

Technical data

Typical values

Characteristic impedance (data)	100 Ω ± 15 Ω (at 1 MHz to 20 MHz)	Conductor DC resistance @ 20 °C	≤ 79.9 Ω/km (0.25 mm ² data) · ≤ 19.5 Ω/km (1.0 mm ² power)
Mutual capacitance (data pairs)	< 60 nF/km (60 pF/m) at 800 Hz · 66 % VoP	Attenuation @ 1.0 / 4.0 / 16 MHz	1.5 / 2.7 / 5.2 dB/100m (0.25 mm ² pairs)
Peak working & test voltage	250 V (data/power) · 1,500 V AC rms test voltage	Operating temp. (fixed)	-40 °C to +80 °C
Operating temp. (drag-chain)	-30 °C to +70 °C (+80 °C UL AWM)	Current rating (1.0 mm ² power)	Up to 12 A continuous at +30 °C ambient
Core configuration	3 × 2 × 0.25 mm ² (AWG 24) + 3 × 1.0 mm ² (AWG 18)	Overall cable diameter	9.1 mm ± 0.3 mm (116 kg/km total weight)
Min. bending radius	8 × OD (73 mm fixed) · 10–12 × OD (91–109 mm chain)	Drag-chain endurance	≥ 5,000,000 cycles at 5 m/s ² , 10 m travel
Oil & coolant resistance	EN 60811-404 / UL Oil Res I & II	Flame & halogen-free	IEC 60332-1-2, UL FT1/VW-1 & IEC 60754-1/2
Hydrolysis & UV resistance	Polyether-PUR resists microbes, hydrolysis & UV	Standards	EN 50254 / IEC 61158 Type 8 INTERBUS Club

Sizes

8 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Impedance / size	Conductor & dielectric	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard UNITRONIC BUS IBS FD P COMBI A configurations 8 sizes							
☐ IBS FD P COMBI A	3×2×0.25 + 3×1.0 mm ²	Class 6 Cu + PE + PUR Chain	1.00	9.10	65.0	116.0	73
☐ UNITRONIC BUS IBS FD P	3×2×0.25 mm ² (Data Only)	Class 6 Cu + PE + PUR Chain	0.90	7.30	33.0	68.0	58
☐ UNITRONIC BUS IBS COMBI	3×2×0.25 + 3×1.0 mm ² PVC	Fixed Installation PVC	1.00	9.00	65.0	122.0	72
☐ UNITRONIC BUS IBS (Fixed)	3×2×0.25 mm ² PVC	Fixed Remote Bus PVC	0.90	7.20	33.0	71.0	58
☐ IBS FD P COMBI 1.5	3×2×0.25 + 3×1.5 mm ²	Heavy 24V Power Hybrid PUR	1.10	9.80	80.0	142.0	78
☐ IBS ROBOT COMBI Torsion	3×2×0.25 + 3×1.0 mm ²	±180°/m Welding Robot PUR	1.05	9.30	66.0	120.0	75
☐ IBS H COMBI Halogen-Free	3×2×0.25 + 3×1.0 mm ² LSZH	Fixed Halogen-Free LSZH	1.00	9.10	65.0	125.0	73
☐ IBS YV COMBI Direct Burial	3×2×0.25 + 3×1.0 mm ² PE	Reinforced Black Outdoor	1.40	10.60	65.0	148.0	85

– Outer diameters and weights are nominal engineering values for UNITRONIC BUS IBS FD P COMBI A subject to standard manufacturing tolerances per EN 50254 / IEC 61158 Type 8 INTERBUS (3×2×0.25 + 3×1.0 mm² Drag-Chain Hybrid).

RF & electrical data

8 sizes

Configuration	Max. DCR @ 20 °C Ω/km	Char. Z0 Ω	Velocity VoP / L (% or nH/m)	Dielectric test V AC rms
IBS FD P COMBI A (3×2×0.25 + 3×1.0 mm ²)	79.90	100.0	66.0	1,500
UNITRONIC BUS IBS FD P (3×2×0.25 mm ² (Data Only))	79.90	100.0	66.0	1,500
UNITRONIC BUS IBS COMBI (3×2×0.25 + 3×1.0 mm ² PVC)	79.90	100.0	66.0	1,500
UNITRONIC BUS IBS (Fixed) (3×2×0.25 mm ² PVC)	79.90	100.0	66.0	1,500
IBS FD P COMBI 1.5 (3×2×0.25 + 3×1.5 mm ²)	79.90	100.0	66.0	1,500
IBS ROBOT COMBI Torsion (3×2×0.25 + 3×1.0 mm ²)	79.90	100.0	66.0	1,500
IBS H COMBI Halogen-Free (3×2×0.25 + 3×1.0 mm ² LSZH)	79.90	100.0	66.0	1,500
IBS YV COMBI Direct Burial (3×2×0.25 + 3×1.0 mm ² PE)	79.90	100.0	66.0	1,500

– Characteristic impedance, propagation velocity, DC resistance at +20 °C, and dielectric withstand voltages verified per EN 50254 / IEC 61158 Type 8 INTERBUS (3×2×0.25 + 3×1.0 mm² Drag-Chain Hybrid).

Standards and approvals

- ✓ EN 50254 / IEC 61158 Type 8 INTERBUS (3×2×0.25 + 3×1.0 mm² Drag-Chain Hybrid)
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC Compliance Verified

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

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Web

tebaoflex.com/cables/interbus-continuous-flex-pur-hybrid-remote-bus-data-and-power-drag-chain-cable



Typical values for this cable type, based on EN 50254 / IEC 61158 Type 8 INTERBUS (3×2×0.25 + 3×1.0 mm² Drag-Chain Hybrid). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.