



UIC 558 18-pole WTB & PA railway jumper

UIC 558 Jumper Assembly

18-pole UIC 558 WTB train bus, push-pull remote control & PA inter-coach railway jumper

UIC 558 (18-Pole)

120 Ω WTB Train Bus

EN 45545-2 HL3



Application

18-pole RIC inter-coach railway jumper built to UIC 558 (superseding 13-pole UIC 568), IEC 61375 Wire Train Bus (WTB, 120 Ω), EN 50264 and EN 45545-2 HL3 for push-pull remote control (ZMS/ZWS), PA, lighting and doors.

Typical uses: RIC International Passenger Coaches, Push-Pull Locomotive & Driving Trailer Consists (ZWS/ZMS), IEC 61375 Wire Train Bus (WTB) Retrofits, Passenger Information (PIS) & Public Address (PA), Automated Lateral Door & Coach Lighting Control

Construction



Cross-section, not to scale

- 1 Fine-stranded tinned copper control & bus conductors
- 2 Cross-linked EI 109 & low-loss foam-skin PE
- 3 Individual pair & overall EMC copper braids
- 4 Torsion-slip non-woven separating tape
- 5 Cross-linked LSZH elastomer (EN 50264 EM 104)

Technical data

Typical values

Rated operating voltage	110 V DC / 250 V AC (cable 300/500 V to EN 50264)	Contact current rating	16 A (2.5 mm² pins) · 10 A (1.5 mm² & data pins)
WTB bus impedance (Pins 14–15, 17–18)	120 ± 12 Ω at 0.75–1.5 MHz (IEC 61375-2-3)	Contact plating	Hard gold over nickel (WTB data pins) & silver (control pins)
AC dielectric test	2.0 kV AC rms for 1 min	Ambient operating range	–40 °C to +85 °C
Max. conductor temperature	+90 °C continuous	Total pole count	18 poles (Pins 1–13 backward compatible with UIC 568)
Cable outer diameter	20.5 mm to 22.0 mm nominal	Vibration & shock	IEC 61373 Category 2
Mating durability	≥ 1,500 coupling cycles	Min. bend radius	6 × OD dynamic inter-coach loop
Fire & smoke safety	EN 45545-2 HL3 (R15/R16) · Zero halogen EN 60754-1/2	Ingress protection	IP66 / IP67 mated or parked in dummy socket
Chemical & oil resistance	EN 50264 mineral oil, fuel, oxalic acid & alkali wash	Standards	UIC Leaflet 558 (and legacy UIC 568)
Standard packing	Individually boxed with serialized 18-pin & WTB TDR test report		

Sizes

12 standard constructions

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

Order designation	Connector Configuration	18-Core Cable Architecture	Length mm	Cable OD mm	Assy Wt kg	Fire Class EN 45545-2
18-Pole UIC 558 Plug-to-Plug (PP) & Plug-to-Junction-Box (PJ) Assemblies 8 sizes						
☐ UIC558-PP-18P-1300	18P Plug ↔ 18P Plug	2×2.5 + 8×1.5 + 4×(2×0.75)C	1,300	21.2	3.15	HL3 (R15/R16)
☐ UIC558-PP-18P-1500	18P Plug ↔ 18P Plug	2×2.5 + 8×1.5 + 4×(2×0.75)C	1,500	21.2	3.35	HL3 (R15/R16)
☐ UIC558-PP-18P-1650	18P Plug ↔ 18P Plug	2×2.5 + 8×1.5 + 4×(2×0.75)C	1,650	21.2	3.50	HL3 (R15/R16)
☐ UIC558-PP-18P-1800	18P Plug ↔ 18P Plug	2×2.5 + 8×1.5 + 4×(2×0.75)C	1,800	21.2	3.65	HL3 (R15/R16)
☐ UIC558-PP-18P-2000	18P Plug ↔ 18P Plug	2×2.5 + 8×1.5 + 4×(2×0.75)C	2,000	21.2	3.85	HL3 (R15/R16)
☐ UIC558-PJ-18P-1500	18P Plug → M32 EMC Gland + Lugs	2×2.5 + 8×1.5 + 4×(2×0.75)C	1,500	21.2	2.75	HL3 (R15/R16)
☐ UIC558-PJ-18P-1800	18P Plug → M32 EMC Gland + Lugs	2×2.5 + 8×1.5 + 4×(2×0.75)C	1,800	21.2	3.05	HL3 (R15/R16)
☐ UIC558-PJ-18P-2200	18P Plug → M32 EMC Gland + Lugs	2×2.5 + 8×1.5 + 4×(2×0.75)C	2,200	21.2	3.45	HL3 (R15/R16)
UIC 558 ↔ UIC 568 (18P/13P) Transition Jumpers & Coach Receptacle Kits 4 sizes						
☐ UIC558-568-PP-1500	18P UIC 558 ↔ 13P UIC 568 Plug	13-Core Active UIC 568 Subset	1,500	21.2	3.25	HL3 (R15/R16)
☐ UIC558-568-PP-1800	18P UIC 558 ↔ 13P UIC 568 Plug	13-Core Active UIC 568 Subset	1,800	21.2	3.55	HL3 (R15/R16)
☐ UIC558-REC-18P-1500	18P Coach Socket + 1.5 m Tail	2×2.5 + 8×1.5 + 4×(2×0.75)C	1,500	21.2	3.40	HL3 (R15/R16)
☐ UIC558-ETH-18P-1650	18P UIC 558 + Integrated Cat5e Quad	UIC 558 + 100Ω ETB Ethernet Quad	1,650	22.0	3.70	HL3 (R15/R16)

– UIC 558 pin summary: Pins 1–4 = PA & Crew Intercom (screened pairs), Pins 5–12 = Lighting, Door Closing & Priority Control, Pin 13 = Common Return (2.5 mm²), Pins 14–15 = WTB Backup / ZMS Pair (120 Ω), Pin 16 = Aux Supply (2.5 mm²), Pins 17–18 = Primary WTB / ZWS Pair (120 Ω).

Standards and approvals

- ✓ UIC Leaflet 558 (18-Pole) & Legacy UIC 568 (13-Pole) Compliant
- ✓ IEC 61375-2-3 (120 Ω WTB) & EN 45545-2 HL3 Certified

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

info@tebaoflex.com

Web

tebaoflex.com/cables/uic-558-18-pole-remote-control-and-passenger-information-railway-jumper-assembly



Typical values for this cable type, based on UIC 558 / IEC 61375-2-3 (WTB) / EN 50264-3-2 / EN 45545-2 HL3. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.