



RADOX® GKW-ZUGBUS

Traction cable

Halogen free, compact, symmetrical 120 Ω data lines with excellent transmission qualities at high frequencies

RADOX® GKW-ZUGBUS are symmetrical 120 Ω data lines for high frequency, low attenuation data transmission. They have excellent resistance to temperatures, ozone and weathering, are flexible, easy to strip and soldering resistant. The tinned copper braid screens are optimised for EMC, ensuring efficient screening.



RADOX® GKW-ZUGBUS cables are designed for permanent installation inside of rolling stock to connect fixed parts. A typical application is a communication system in a locomotive. The system uses a wire backed bus system to the TCN standard for control and instrumentation and for diagnostics. This bus system consists of the rail bus WTB (Wired Train Bus) and the road bus MVB (Multifunction Vehicle Bus) which are connected via redundant gateways.

- Voltage rating 300 V
- Operating temperature -40°C to +100°C
- Electron beam crosslinked RADOX® insulation does not melt or flow at high temperatures
- Halogen free and flame retardant
- Wired Train Bus WTB and Multifunction Vehicle Bus MVB
- Impedance 120 Ω
- High performance screening



RADOX® GKW-ZUGBUS

Traction cable

WTB Wired Train Bus	MVB Multifunction Vehicle Bus
	
<p>Conductor: stranded, tin plated copper Cores: RADOX® Foam Intermediate layer: plastic tape Screen: tin plated copper braid Sheath: RADOX® GKW S, color black</p>	

WTB Wired Train Bus

Cross-section n x mm ²	Impedance f=0.5..2 MHz	Attenuation f=1 MHz	Attenuation f=2 MHz	Transfer impedance f ≤ 30 MHz	Cable Ø nom. mm	Weight kg/100 m	Part No.
2x0.75	120 ± 12 Ω	≤10.0 dB/km	≤14.0 dB/km	≤30 mΩ/m	8.3	9.7	12 552 469

MVB Multifunction Vehicle Bus

Cross-section n x mm ²	Impedance f=0.75..3 MHz	Attenuation f=1 MHz	Attenuation f=2 MHz	Transfer impedance f ≤ 20 MHz	Cable Ø nom. mm	Weight kg/100 m	Part No.
1x2x0.5+ 1x0.5	120 ± 12 Ω	≤12.5 dB/km	≤18.0 dB/km	≤20 mΩ/m	6.8	6.2	12 552 039

MVB Multifunction Vehicle Bus (redundant version)

Cross-section n x mm ²	Impedance f=0.75..3 MHz	Attenuation f=1.5 MHz	Attenuation f=3 MHz	Transfer impedance f ≤ 20 MHz	Cable Ø nom. mm	Weight kg/100 m	Part No.
1x4x0.5+ 4x1x0.25	120 ± 12 Ω	≤17 dB/km	≤25.0 dB/km	≤20 mΩ/m	7.9	9.5	12 553 902

Technical Specification

Voltage rating	300 V
Test voltage	2000 V
Temperature range	-40°C to +100°C

Other Versions

Multicore RADOX® GKW Train Bus Cable UIC with integrated databus lines (WTB), for example 9 core, 10 core, 18 core, 20 core, 22 core.

HUBER+SUHNER Group is certified according to ISO 9001 and ISO 14001

Waiver

While the information contained in this flyer has been carefully compiled to the best of our present knowledge, it is not intended as representation or warranty of any kind on our part regarding the suitability of the products concerned for any particular use or purpose and neither shall any statement contained herein be construed as a recommendation to infringe any industrial property rights or as a license to use any such rights. The suitability of each product for any particular purpose must be checked beforehand with our specialists.

HUBER+SUHNER - Excellence in Connectivity Solutions



HUBER+SUHNER AG
 Wire+Cable Division
 8330 Pfäffikon ZH, Switzerland
 Phone +41 (0)1 952 22 11
 Fax +41 (0)1 952 26 70
www.hubersuhner.com