



Traction cable

RADOX DATABUS 78 OHM 2X0.5 XM S

Product description:

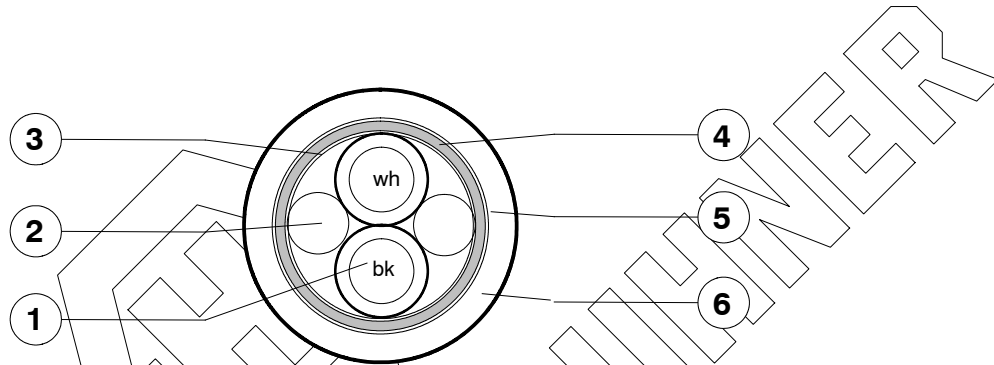
RADOX DATABUS: Cable screened (overall screen)
 Impedance: 78 Ohm
 Hazard level: M (extra low temperature, extra oil and extra fuel resistant)

General properties:

Halogen free, electron beam cross-linked cable with improved behaviour in case of fire, easy to strip, soldering resistant and flexible.

Application:

Databus cable for permanent installation, with impedance of 78 Ω and very good transmission properties at high frequencies. Guidelines for selection and installation are described in the standard EN 50343.



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|--|--|---|
| <ol style="list-style-type: none"> 1. 2 cores 0.5 mm²
(Databus) 2. 2 x Filler 3. Wrapping 4. EMC-screen 5. Wrapping 6. Sheath | <p>Conductor : tin plated copper wire
 Insulation : RADOX Com
 Colours : black, white
 Cores twisted</p> <p>RADOX</p> <p>Tape</p> <p>Tin plated copper braid</p> <p>Tape</p> <p>RADOX EM 104
 Colour : black</p> | <p>D : 1.70 ± 0.1 mm</p> <p>D : 4.20 mm</p> <p>D : 5.5 ± 0.3 mm</p> |
|--|--|---|

Marking: HUBER+SUHNER RADOX DATABUS 78 OHM 2X0.5 XM S 12532267-[Prod.-Nr.]

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The product fulfils the test and specification requirements described in this document for the stated areas of application and operating conditions. HUBER+SUHNER AG does not expressly or implicitly guarantee performance under additional or changed conditions. Deviations are to be agreed upon in writing.

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Technical data:

Conductor resistance at 20 °C	≤ 40.1	Ω / km
Voltage rating U_0/U	300 / 500	V AC
Test voltage, 50 Hz, 1 min	.....	2000	.....	V AC
Capacity	..... core / core	75	.....	pF / m
	..... core / screen	128	.....	pF / m
Impedance	..... f = 1 MHz	320	.....	Ω
	..... f = 10 kHz	132	.....	Ω
	..... f = 100 kHz	87	.....	Ω
	..... f = 200 kHz	83	.....	Ω
	..... f = 1 MHz	79	.....	Ω
	..... f = 4 MHz	78	.....	Ω
Characteristic Impedance	.....	78 ± 10	.....	Ω
Attenuation	..... f = 1 kHz	≤ 0.12	.....	dB / 100m
	..... f = 10 kHz	≤ 0.36	.....	dB / 100m
	..... f = 100 kHz	≤ 0.72	.....	dB / 100m
	..... f = 200 kHz	≤ 1.1	.....	dB / 100m
	..... f = 1 MHz	≤ 2.3	.....	dB / 100m
	..... f = 4 MHz	≤ 4.6	.....	dB / 100m
Transferimpedance	..... f ≤ 30 MHz	≤ 60	.....	mΩ/m
Max. continuous conductor temperature	.....	+ 90	.....	°C
Min. operating temperature	.....	- 40	.....	°C
Min. bending radius	..... fixed	3 x cable dia	.....
Cable weight per 100 m	.....	approx. 4.6	.....	kg

NB:

The upper temperature limit is determined by long term ageing according to EN 50305 Par. 7 and extrapolation to 20,000 hours.
The lower temperature limit is determined by bending and elongation tests according to EN 60811-1-4 Par. 8
The specified bending radii require a careful and proper handling using proven fastening technologies.

The cable is in conformity with:

Fire protection on railway vehicles, level of protection	1 - 4	DIN 5510
Vertical flame spread	50 < L ≤ 540 mm	EN 60332-1-2
Smoke density	T ≥ 60 %	EN 61034-2
Corrosivity of combustion gases	pH ≥ 4.3, C ≤ 10 μS/mm	EN 50267-2-2
Amount of halogen acid gas	HCl + HBr ≤ 0.5 %	EN 50267-2-1
Content of fluorine	HF ≤ 0.1 %	EN 60684-2, 45.2
Toxicity	ITC ≤ 3	EN 50305, 9.2

Requirement of hazard level code M

	(acc. to EN 50264-1 or EN 50306-1)
Extra low temperature	- 40°C
Extra oil resistance	IRM 902, 72h, 100°C
Extra fuel resistance	IRM 903, 168h, 70°C