



Traction cable

RADOX DATABUS 120 OHM 2X1.5 XM S

Product description:

RADOX DATABUS 120 OHM Cable with 1.5 mm² - cores, overall screen
 Impedance: 120 Ohm
 Hazard level: M (extra low temperature resistant, extra oil and fuel resistant)

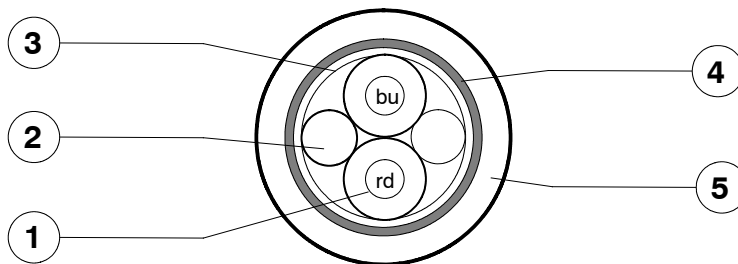
General features:

Halogen-free, electron-beam cross-linked cable with improved behaviour in case of fire, easy to strip, soldering resistant and flexible. Cable for symmetrical data transmission with impedance of 120 Ohm with very good transmission properties at high frequencies.

Application:

The cable is intended for fixed installation inside railway vehicles or for installation in applications where limited alternating bending stresses occur during operation.

Guidelines for selection and installation are described in standard EN 50343.



1.	2 cores 1.5 mm ²	Conductor : flexible tin plated copper	
		Insulation : RADOX FOAM	D : 3.8 mm
		Colours : blue, red	
2.	Fillers	PE-LD	
3.	Wrapping	Tape	
4.	EMC - Screen	Tin plated copper braid	D : 8.80 mm
5.	Sheath	RADOX EM 104, colour : black	D : 11.1±0.4 mm

Marking: HUBER+SUHNER RADOX DATABUS 120 OHM 2X1.5 XM S 12556403- [prod.-no.] [date of manufacture]

Designation legend

X : Core insulation material is not defined in EN 50264- 1
 M : Sheet material EM 104 according to EN 50264- 1
 S : Overall screen

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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	1.5 mm ²	≤ 13.7	Ω / km
Insulation resistance at 20°C		> 100	MΩ · km
Capacitance	core / core	≤ 45	pF / m
Impedance	f = 0.75 ... 3 MHz	120 ± 12	Ω
Attenuation _{nom.}	f = 1.0 MHz	0.8	dB / 100m
	f = 2.0 MHz	1.2	dB / 100m
	f = 3.0 MHz	1.5	dB / 100m
Transferimpedance	f ≤ 20 MHz	≤ 20	mΩ/m
Signal propagation		77	%
Voltage rating		300	V AC
Test voltage		2 000	V AC
Temperature range	fixed installation	- 50 ... + 90	°C
Min. bending radius	fixed installation	3 x D	
	sporadic movement	5 x D	
Cable weight		approx. 15.5	kg / 100m

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, respectively low temperature behaviour tests for static conditions, e.g. for fixed installation according to GOST 20.57.406- 81 - method 204- 1 and GOST 17491- 80.

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, hazard level 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

(according 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