



Databus

RADOX MARINE DATABUS 120 OHM

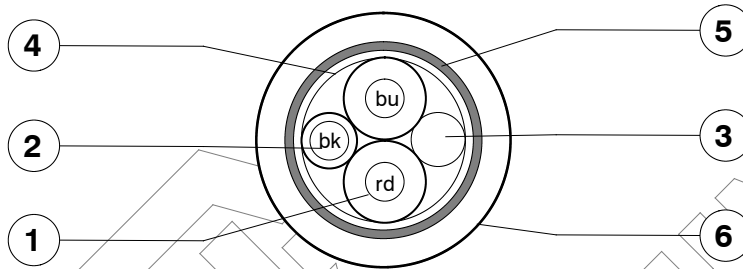
General Properties :

Limited fire hazard electrical installation cable, zero halogen, flame retardant; high temperature, low temperature and ozone resistance, solder iron resistant, easily strippable, flexible, excellent screening properties.

Cable for symmetrical data transmission with impedance of 120 Ω with very good transmission properties at high frequencies.

Application :

For permanent installation inside of ships to connect fixed parts.



- | | |
|---|---|
| 1. n x 2 cores
(Databus) | Conductor: flexible tin plated copper
Insulation: RADOX foam
Colours: See table |
| 2. n x cores 0.5 mm ²
type Radox 125 RW | Conductor: stranded tin plated copper
Insulation: RADOX 125
Colours: See table |
| 3. n fillers | PE-LD |
| 4. Wrapping | PP-E tape |
| 5. EMC - Screen optimised | Tin plated copper braid |
| 6. Sheath | RADOX Elastomer S FH, colour: black |

Cable marking : HUBER+SUHNER RADOX MARINE 120OHM nx2x0.5+nx0.5MM2 SHF2 90C

IEC 60332-1-2 IEC 60332-3-22 [item no]-[batch no] [date of manufacture] [prod- place]

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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 :**Data bus pair n x 2x0.5 mm² :

Conductor resistance at 20°C	≤ see table	Ω / km
Voltage rating	300	V
Test voltage DC, 1 min.	2 000	V
Insulation resistance at 20°C	> 100	MΩ · km
Mutual capacitance wire / wire	f = 1 MHz	≤ 45 pF / m
Capacitive unbalance to shield	f = 1 MHz	< 1.5 pF / m
Impedance	f = 0.75 ... 3 MHz	120 ± 12 Ω
Attenuation	f = 0.25 MHz	≤ 0.67 dB / 100m
	f = 1.0 MHz	≤ 1.35 dB / 100m
	f = 2.0 MHz	≤ 1.80 dB / 100m
	f = 3.0 MHz	≤ 2.30 dB / 100m

Core 0.5 mm² :

Conductor resistance at 20°C	≤ see table	Ω / km
Voltage rating	300	V
Test voltage, DC 1 min.	2 000	V

Cable :

Transfer impedance	f ≤ 20 MHz	≤ 20	mΩ / m
Temperature range	fixed	- 40 ... + 90	°C
	flexing	- 25 ... + 90	°C
Min. bending radius	fixed	3 x cable dia.	
	flexing	5 x cable dia.	
Cable weight per 100m		see table	

The cables are in conformity with:

Fire protection on railway vehicles protection level, HL1, HL2, HL3	EN 45545-2
Vertical flame spread	50 < L ≤ 540mm EN 60332-1-2, IEC60332-1-2
Vertical flame spread, bunched (6 < D < 12mm) L ≤ 2.5m	EN 60332-3-25
Vertical flame spread, bunched (D ≥ 12mm) L ≤ 2.5m	EN 60332-3-24
Vertical flame spread, cat A	L ≤ 2.5m IEC 60332-3-22
Smoke density	T ≥ 70% EN 61034-2, IEC 61034-2
Amount of halogen acid gas	HCL + HBr ≤ 0.5% EN 60754-1, IEC 60754-1
Corrosivity of combustion gases	pH ≥ 4.3, C ≤ 10 μS/mm EN 60754-2, IEC 60754-2
Amount of halogen acid gas	HF ≤ 0.1% EN 60684-2 # 45.2, IEC 60684-2 # 45.2
Toxicity	ITC ≤ 6 EN 50305 # 9.2

Approvals :

DNV GL TAE00002HJ



Databus RADOX MARINE DATABUS 120 OHM

n x mm ²		Databus (pairs and quads)				R125 (singles)				Cable assembly				
no. of cores x csa ⁽¹⁾		Insulation: Radox foam Colours: blue, red				Insulation: Radox 125 Colour: black				Sheat: Radox Elastomer S FH Colour: black				
2 cores	1 core	Conductor ∅ mmD	Core ∅ mm	R ₂₀ max. Ω / km	Core Color	Conductor ∅ mmD	Core ∅ mm	R ₂₀ max. Ω / km	Core Color	Bundle ∅ mm	EMC Screen ∅ mm	Cable outer∅ mm	Weight Cable kg/100m	H + S Part no.
2 x 0.5	-	19 x 0.18	2.30	40.1	rd-bu	-	-	-	-	5.0	5.5	7.9 ± 0.3	8.3	12582660
2 x 0.5	-	19 x 0.18	2.30	40.1	wh-wh	-	-	-	-	5.0	5.5	7.9 ± 0.3	8.3	85125379
2 x 0.5	1 x 0.5	19 x 0.18	2.30	40.1	rd-bu	19 x 0.18	1.40	40.1	bk	5.0	5.5	7.9 ± 0.3	8.7	12582724
4 x 0.5	-	19 x 0.18	2.30	40.1	rd-bu; bn-gy	-	-	-	-	5.7	6.4	8.2 ± 0.3	9.2	85069238
2 x 2 x 0.5	-	19 x 0.18	2.30	40.1	rd-bu; bn-gy	-	-	-	-	8.6	9.4	12.2 ± 0.4	17.4	12584413
2 x 2 x 0.5	2 x 0.5	19 x 0.18	2.30	40.1	rd-bu; bn-gy	19 x 0.18	1.40	40.1	bk, ye	8.6	9.4	12.2 ± 0.4	17.9	12584414

1) csa = cross-sectional area