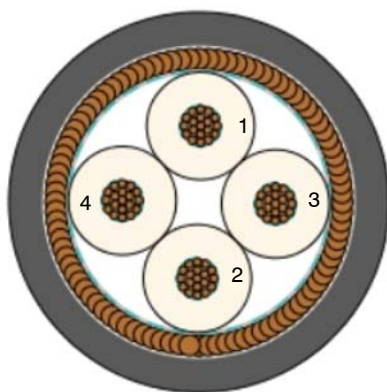


**Databus****RADOX MARINE CAT5e 4x0.5mm²****General Properties:**

Limited fire hazard databus 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 100 Ω with very good transmission properties at high frequencies.

Application:

For permanent installation on: ships, oil- gas platforms, refineries and other harsh environment.



Size	4x0.5mm²
H+S part no	85 066 809
Construction	
Conductor	Tin plated copper, stranded 19x0.18 mm
Core insulation	RADOX COM (XLPE)
Core diameter	2.3 ± 0.03mm
Core colour, numbering, pair	WH(no.1) - WH(no.2) ; WH(no.3) - WH(no.4)
Wrapping over pair	Tape + plastic laminated Al- tape
Filler	-
EMC- screen	Braid, tin plated copper
Braid wire diameter	0.20 mm
Screen diameter	6.56 mm
Wrapping	Tape
Cable sheath	RADOX Elastomer S FH (SHF2, SHF mud)
Sheath colour	black
Cable diameter	8.1 ± 0.3mm
Type of installation	fixed
Cable weight nom.	10.5 kg/100m
Pulling force	max. 50 N

Printing on sheath:

HUBER+SUHNER RADOX MARINE CAT5e 4X0.5MM2 SHF2 SHF MUD 90C

IEC 60332- 1- 2 IEC 60332- 3- 22 85066809- [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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**General technical data:**

Voltage rating 300 VAC
Test voltage, 50 Hz, 5 min. 2000 VAC

Temperature index of sheath TI/20kh >120 °C
Max. operating temperature fixed installation 90 °C
Min. operating temperature fixed installation -50 °C
Min. installation and handling temperature -40 °C

Max. storage temperature 40 °C
Min. storage temperature -50 °C
Min. bending radius fixed installation 6 x cable dia

Characteristic Impedance f = 100MHz 100 ± 5 Ω
Resistance at 20 °C ≤ 40.1 Ω / km
Capacitance core / core ≤ 65 pF / m
..... core / screen ≤ 100 pF / m
Transferimpedance f ≤ 30 MHz ≤ 30 mΩ/m

Frequency (MHz)	Attenuation (dB/100m)	PS NEXT (dB)	EL FEXT (dB)	Return loss (dB)
	Max.	Min.	Min.	Min.
* 1	2.4	-	-	-
4	4.1	53.3	52.0	23.0
10	6.5	47.3	44.0	25.0
31.25	11.7	39.9	34.1	23.6
62.5	17.0	35.4	28.1	21.5
100	22.0	32.3	24.0	20.1

* The cable performance between 1 MHz and 4 MHz is achieved by design only and it is therefore not necessary to test for this performance below 4 Mhz.

**The cable sheath pass the following fluid tests**

Enhanced oil resistance	Fulfilled	NEK TS 606
Mineral oil type IRM 902	7 d / 100 °C	NEK TS 606, table 1
Mineral oil type IRM 903	7 d / 100 °C	NEK TS 606, table 1

Mud resistance	Fulfilled	NEK TS 606
Calcium bromide brine (45 % CaBr ₂ / H ₂ O)	56 d / 70 °C	NEK TS 606, table 1
Base oil EDC 95- 11	56 d / 70 °C	NEK TS 606, table 1

Enhanced oil resistance	Fulfilled	IEC 60092- 360
Mineral oil type IRM 902	7 d / 100 °C	IEC 60092- 360, An. C

Drilling fluid resistance	Fulfilled	IEC 60092- 360
Mineral oil type IRM 903	7 d / 100 °C	IEC 60092- 360, An. C
Calcium bromide brine (45 % CaBr ₂ / H ₂ O)	56 d / 70 °C	IEC 60092- 360, An. D

The cable pass the following fire tests

Fire protection in ships	Fulfilled	DNV GL- CP- 0403
Vertical flame spread of a single cable	50 < L ≤ 540 mm	IEC 60332- 1- 2
Smoke density	T ≥ 70 %	IEC 61034- 2
Corrosivity of combustion gases	pH ≥ 4.3, C ≤ 10 μS/mm	IEC 60754- 2
Amount of halogen acid gas	HCl+HBr ≤ 0.5%	IEC 60754- 1
Content of fluorine	HF ≤ 0.1 %	IEC 60684- 2, 45.2

Applicable standards :

DNV GL- CP- 0403	Type approval - Data communication cables- category cables
IEC 61156- 5	Multicore and symmetrical pair/quad cables for digital communications - Symmetrical pair/quad cables with transmission characteristics up to 1000 Mhz - Horizontal floor wiring
NEK TS 606	Cables for offshore installation, halogenfree and/or mud resistant

Approvals :

DNV GL	TAE00002G1
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