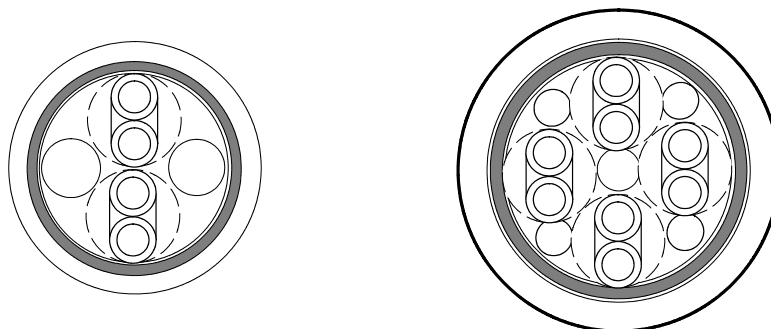


**Databus****RADOX MARINE CAT5e nx(2x0.5mm²)****General Properties:**

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	2x(2x0.5mm ²)	4x(2x0.5mm ²)
H+S part no	85 026 655	85 026 657
Construction		
Conductor	Tin plated copper, stranded 19x0.18 mm	Tin plated copper, stranded 19x0.18 mm
Core insulation	RADOX COM (XLPE)	RADOX COM (XLPE)
Core diameter	2.3 mm	2.3 mm
Core colours	BU- WH/BU, OG- WH/OG	OG- WH/OG, GN- WH/GN, BN- BN/WH, BU- WH/BU,
Wrapping over pair	Tape + plastic laminated Al- tape	Tape + plastic laminated Al- tape
Filler	2, PE- LD	5, PE- LD
EMC- screen	Braid, tin plated copper	Braid, tin plated copper
Braid wire diameter	0.20 mm	0.25 mm
Screen diameter	10.22 mm	13.13 mm
Wrapping	Tape	Tape
Cable sheath	RADOX Elastomer S FH (SHF2, SHF mud)	RADOX Elastomer S FH (SHF2, SHF mud)
Sheath colour	black	black
Cable diameter	12.4 $\pm$ 0.4 mm	17.1 $\pm$ 0.5 mm
Type of installation	fixed	fixed
Cable weight	19.5 kg/100m	35.3 kg/100m
Pulling force	max. 50 N	max. 100N
Sheath thickness	0.9 mm	1.0 mm

Printing on sheath:

HUBER+SUHNER RADOX MARINE CAT5e [number of pairs]x(2x0.5)MM2 SHF2 SHF MUD 90C

IEC 60332- 1- 2[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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**General technical data:**

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

Characteristic Impedance f = 100MHz 100 ± 5 Ω
Resistance at 20 °C ≤ 95 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.
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

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

Min. bending radius fixed installation 6 x cable dia

**The cables pass the following fluid tests**

Drilling fluid resistance for SHF mud	Fulfilled	NEK TS 606, 4.1.1
Mineral oil type IRM 903	7 d / 100 °C	NEK TS 606, 4.1.2
Calcium bromide brine (45 % w/w CaBr ₂ / H ₂ O)	56 d / 70 °C	NEK TS 606, 4.1.2
Base oil EDC 95- 11	56 d / 70 °C	NEK TS 606, 4.1.2
Drilling fluid resistance	Fulfilled	IEC 60092- 360
Mineral oil type IRM 902	24 h / 100 °C	IEC 60811- 2- 1, 10
Mineral oil type IRM 902	7 d / 100 °C	IEC 60092- 360, An. C
Mineral oil type IRM 903	7 d / 100 °C	IEC 60092- 360, An. C
Calcium bromide brine (45 % w/w CaBr ₂ / H ₂ O)	56 d / 70 °C	IEC 60092- 360, An. D

The cables pass the following fire tests

Fire protection in ships	Fulfilled	DNV 827.50- 2
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- 2
Content of fluorine	HF ≤ 0.1 %	IEC 60684- 2, 45.2

Applicable standards :

DNV 827.50- 2 Type approval programme - data communication 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 : Certification Type approval 827.50- 2
Data Communications Cable