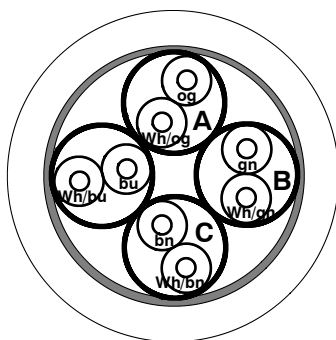


RADOX OFL CAT5 4x(2x24AWG) BK**General Properties:**

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 as category 5 communication cable on: ships, oil & gas platforms, refineries and other harsh environment. The cable can also be used as a CAT6 or CAT7 cable, depending on the installation parameters and cable length.



Size	4x(2x24AWG)
H+S part no	85188410
Construction	
Conductor	Tin plated copper, stranded 7x32AWG (7x0.24mm)
Core insulation	RADOX Foam
Core diameter	1.35 mm
Core colour, numbering, pair	og-wh/og, gn-wh/gn, bn-wh/bn, bu-wh/bu
Wrapping over pair	Aluminium tape
Filler	-
EMC-screen	Braid, tin plated copper
Screen diameter	6.0 mm
Wrapping	Tape
Cable sheath	RADOX Elastomer S FH (SHF2, SHF mud)
Sheath colour	black
Cable diameter	8.1 $\pm$ 0.5mm
Type of installation	fixed
Cable weight nom.	8.8 kg/100m
Pulling force	max. 50 N

Printing on sheath:

HUBER+SUHNER RADOX OFL CAT5e 4X(2X24AWG) SHF2 MUD

IEC 60332-1-2 85188410-[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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Databus

RADOX OFL CAT5 4x(2x24AWG) BK

General technical data:

Voltage rating 125 VAC
 Test voltage, 50 Hz, 5 min. 1000 VAC

Temperature index of sheath TI/20kh > 130 °C
 Max. Operating temperature fixed installation 85* °C
 Min. operating temperature fixed installation -40 °C
 Min. installation and handling temperature -20 °C

Max. storage temperature 40 °C
 Min. storage temperature -40 °C
 Min. bending radius fixed installation 8 x cable dia

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
 Transfer impedance f ≤ 30 MHz ≤ 30 mΩ/m

Frequency (MHz)	Attenuation (dB/100m)	PS NEXT (dB)	PS ACR-F (dB)	Return loss (dB)
	Max.	Min.	Min.	Min.
1**	2.1	-	-	-
4	4.1	53.3	79	23.0
10	6.5	47.3	71	25.0
31.25	12.0	39.9	61.1	23.6
62.5	17.1	35.4	55.1	21.5
100	22.1	32.3	51	20.1
300****	50	62.3	43.0	15.6
600****	73.3	57.8	35.4	15.6

Applications according to the following standards are possible

EN61156-5 Horizontal floor wiring			EN61156-6 Work area wiring Flexible-application		
CAT5***	CAT6	CAT7	CAT5	CAT6	CAT7****
X	-	-	X	X	X

* According IEC60092-379 the max. operating temperature is +80 °C

** 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.

*** 5% deviations of attenuation are possible

**** data for frequencies above 100 Mhz reference the properties for CAT7 cable

Databus

RADOX OFL CAT5 4x(2x24AWG) BK

The cable sheath passes 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 passes 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 ≥ 60 %	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 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 600Mhz – Horizontal floor wiring
NEK TS 606	Cables for offshore installation, halogenfree and/or mud resistant

Approvals :

DNV GL	TAE00004V1
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