

## FIBER OPTIC CABLE

### Steel-Armoured Multi-fiber Loose Tube Cable

#### Description

##### 24-.../W(ZN)HAR-...82-DNV

- DNV GL Type approved
- DNV GL Certificate no.: TAE0000173
- Outer jacket according to SHF2 class
- Fulfill the flame, fire, oil and drilling fluid resistance acc. NEK 606
- NEK 606 standard for offshore oil and gas, ship and marine applications
- Rodent protected, steel armoured
- For high mechanical and thermal stability
- Low smoke, halogen free and self-extinguishing
- Low fire load for high safety requirements



#### Available Types

##### Type of Fiber

E9/125	according to IEC 60793-2-50 Typ B1.3 + ITU G.652.D
E9/125	according to IEC 60793-2-50 Typ B6_a2.+ ITU G.657.A2
G50/125-OM2	according to IEC 60793-2-10 Typ A1a.+ ITU G.651
G50/125-OM3	according to IEC 60793-2-10 A1a2.+ ITU G.651 BendOptimized
G50/125-OM4	according to IEC 60793-2-10 A1a3.+ ITU G.651 BendOptimized

##### Standard Colours

Fiber:	According to colour code
Tube:	White or natural
Jacket (outer):	Black

#### Technical data

##### Construction

Description / Material	Size	Options / Notice
24 Optical fiber	250 µm	Fiber type, colour
1 Multi-fiber loose tube up to 24 fibers	2.8 mm	Colour, jelly-filled
Reinforcement / aramide yarn		
Jacket / PE flame retardant	5.0 mm	Colour
Steel armouring		
Outer jacket / RADOX	8.2 mm	Colour, inscription

##### Mechanical data

Characteristics	Conditions	Tested acc. to	Values
Weight			114 kg/km
Tensile strength	During installation In service	IEC 60794-1-21 E1	3750 N 2000 N
Minimal bending radius	During installation In service	IEC 60794-1-21 E11	120 mm 80 mm
Crush resistance	5min	IEC 60794-1-21 E3	2'000 N/dm
Impact resistance	Wp = 5J	IEC 60794-1-21 E4	1 impact
Kink resistance	Radius = 80mm	IEC 60794-1-21 E10	Passed
Torsion	Angle = ±180° Length = 1000mm	IEC 60794-1-21 E7	20 cycles

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#### Environmental Data

Characteristics	Conditions	Tested acc. to	Values
Temperature range	During installation In service In storage	IEC 60794-1-2 F1	-20 °C up to +70°C -50 °C up to +85°C -50 °C up to +85°C
Fire load			1.7 MJ/m
Fire propagation	On a vertical single cable On a vertical cable bundle		IEC 60332-1-2 IEC 60332-3-22
Fire Test: smoke density Fire Test: halogen acid gas Fire Test: degree of acidity	Jacket material Jacket material	IEC 61034-2 IEC 60754-1 IEC 60754-2	Passed Halogen free Passed
Oil resistance Drilling fluid resistance Drilling fluid resistance	IRM 902 IRM 903 CaBr <sub>2</sub>	IEC 60092-360 IEC 60092-360 IEC 60092-360	168h; 100°C 168h; 100°C 56d; 70°C
2011/65/EC (RoHS)			Compliant

Specification for singlemode at 1550nm, for multimode at 1300nm..