# $\textbf{SHIPFLEX}^{\texttt{@}}~\textbf{109}_{\texttt{cable}}~\textbf{for drag}~\textbf{chain, halogen-free, EMC}~\textbf{prefered}$

### type, meter marking





**HELUKABEL SHIPFLEX 109** 

CE



#### **Technical data**

- Special screened drag chain cable
- UL-Style 20234
- Temperature range flexing -40°C to +80°C fixed installation -40°C to +80°C
- Installation temperature min. -25°C
- Nominal voltage to VDE U<sub>0</sub>/U 0,6/1 kV UL 1000 V
- Insulation resistance min. 200 MOhm x km
- Minimum bending radius 7,5x cable Ø
- Coupling resistance max. 250 Ohm/km
- Radiation resistance up to 100x10<sup>6</sup> cJ/kg (up to 100 Mrad)

## **Cable structure**

- Bare copper-conductor, to DIN VDE 0295 cl.6, extra fine-wire, BS 6360 cl.6, IEC 60228 cl.6
- Special core insulation
- Black cores imprinted with U1, V2, W3
- GN-YE conductor depends on conductor cross-section may cut into thirds
- Cores stranded together with optimal lay-length
- Core wrapping between the layers of stranding
- Braided screening of tinned copper wires, coverage approx. 85%
- Full polyurethane outer sheath to UL std. 1581 Tab. 50227
- Sheath colour orange (RAL 2003)
- with meter marking

#### **Properties**

- Flame retardant to DIN VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- Halogen-free to DIN VDE 0482 part 267/ DIN EN 50267-2-1/IEC 60754-1 (equivalent DIN VDE 0472 part 815)
- Oil resistant to IEC 60092-350, appendix F
- Behaviour at low temperature at -40°C to IEC 60092-350, appendix E
- Weather, ozon and UV-resistant
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

#### **Note**

 AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.

## Application

HELUKABEL® SHIPFLEX® 109 is a new developed and successfully tested special drag chain cable with overall screening which meets the requirements of the strict standards for application in offshore-areas. For this two-line standard there is a **Lloyds Register approval**. The outer sheath insulation of non-adhesive Polyurethan allows the application in extremely oily and rough environmental conditions. For applications which go beyond standard solutions we recommend that you fill out our especially developed questionnaire for drag chains. Before installation in cable drag chains please read the installation instructions.

**EMC** = Electromagnetic compatibillity

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

**C** €= The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Part no.	No.cores x cross-sec. mm²	AWG-No.	Outer Ø app. mm	Cop. weight kg/km	Weight app. kg/km	
19810	4 G 1	18	9,0	84,0	124,0	
19811	4 G 1,5	16	10,5	105,0	175,0	
19812	4 G 2,5	14	11,7	157,0	265,0	
19813	4 G 4	12	13,4	231,0	390,0	
19814	4 G 6	10	15,6	332,0	570,0	
19815	4 G 10	8	19,2	527,0	804,0	
19816	4 G 16	6	23.9	794 0	1450.0	

Part no.	No.cores x cross-sec. mm²	AWG-No.	Outer Ø app. mm	•	Weight app. kg/km	
19817	4 G 25	4	27,6	1180,0	1660,0	
19818	4 G 35	2	32,7	1600,0	2400,0	
19819	4 G 50	1	37,0	2165,0	2600,0	
19820	4 G 70	2/0	43,0	3196,0	4600,0	
19969	3 G 95	3/0	41,0	3090,0	4480,0	
19821	4 G 95	3/0	48,0	4606,0	5350,0	

Dimensions and specifications may be changed without prior notice. (RW01)