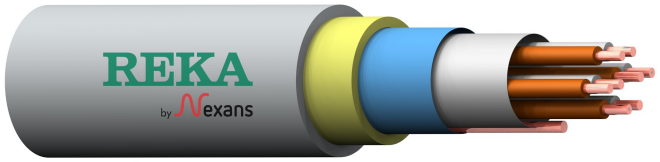
REDAK-HF

Instrumentation cable-HF

300 V



Application

Instrumentation cable for fixed installations indoors and outdoors. Not to be laid in soil nor directly in cast concrete. Installations must be in accordance with national regulations and rules of installations. The cable is halogen-free and flame-retardant according to CPR-class Dca-s2,d2,a2.

Design

Standards	EN 50288-7
Reaction to fire	Dca-s2,d2,a2; EN 13501-6, EN 50575:2014+A1:2016
Conductor	Circular stranded tinned copper, EN/IEC 60228 class 2
Insulation	Halogen free polyethylene
Core Identification	White , orange, with black numbers
Pair lay up	Cores are twisted in pairs
Cable lay up	Insulated cores are twisted in pairs. Maximum lenght of lay 100 mm. Pairs are twisted together (in concentric layers)
Overall shield	Aluminium tape and earthing conductor (tinned copper, 7x0,30mm)
Inner covering	Halogen free filling compound
Separation sheath	Halogen free filling compound
Oversheath	UV-protected halogen-free polyolefin compound, Grey

Temperature limits

Max. conductor temperature °C	70
Max. cond. temp. short circuit max. 5 s °C	160
Min. cable temperature during operation °C	-40
Min. cable temperature during handling °C	-10
Min. cable temperature during transport °C	-40

Additional information

Maximum DC resistance of conductor pair at 20 ºC 81,0 Ω/km (0,5 mm²)
Testing voltage 1 kV AC
Nominal mutual capacitance 80 nF/km
Maximum mutual capacitance 150 nF/km
Nominal inductance (L) 600 µH/km
Maximum inductance to resistance ratio (L/R) 25 µH/Ω

Technical information	2x2x0,5	4x2x0,5	8x2x0,5	12x2x0,5	16x2x0,5	24x2x0,5
Product code	**1147302**	**1147304**	**1147308**	**1147312**	**1147316**	**1147324**
Nominal cross-sectional area of conductor mm²	0,5	0,5	0,5	0,5	0,5	0,5
Nominal diameter of conductor mm	0,9	0,9	0,9	0,9	0,9	0,9
Nominal thickness of insulation mm	0,4	0,4	0,4	0,4	0,4	0,4
Nominal thickness of oversheath mm	0,9	0,9	1,0	1,1	1,1	1,2
Fire load MJ/m	1,060	1,650	2,629	3,696	4,631	6,178
Fire load kWh/m	0,294	0,458	0,730	1,027	1,286	1,716
Nominal cable diameter mm	8,520	11,390	14,160	16,720	18,500	21,680
Nominal cable weight kg/km	91,494	142,440	223,146	318,372	393,792	532,184
Nominal weight of copper kg/m	0,022	0,040	0,076	0,112	0,148	0,221
Maximum forces during installation when pulling by						
Max. pulling force by pulling-eye kN	0,1	0,2	0,4	0,6	0,8	1,2
Minimum bending radii						
Minimum bending radius, handling mm	128	171	212	251	278	325
Minimum bending radius, final bending mm	85	114	142	167	185	217
Minimum bending radii						
During handling and installation, cable cm	13	17	21	25	28	33
In final installation, cable cm	9	11	14	17	19	22
DC resistance						
Max. DC resistance of conductor at 20 °C Ω/km	37,4	37,4	37,4	37,4	37,4	37,4
Electrical values						
Minimum insulation resistance MΩ × km	1000	1000	1000	1000	1000	1000