

HSLH (Cross section 0.75mm²-1.0mm²)

CU/XLHF/HFPO



Halogen-free signal cable, with improved properties under fire

Construction

Conductor:	Bare copper conductor, fine wired stranded, class 5 acc. to IEC 60228 / HD 383 / DIN VDE 0295
Insulation:	Cross-linked halogen-free polyolefin polymer, concentrically stranded cores, with green-yellow core, always in external layer (3 cores) or without green-yellow core
Core marking:	(acc. to DIN VDE 0293) black numbered, cores stranded in layers
Sheath:	Halogen free compound ST8 acc. to IEC 60502-1
sheath colour:	Grey (RAL 7001)

Application

Halogen-free signal cable with improved properties under fire, suitable for different applications in control and measuring circuits, in industry and facilities where human lives or valuable property need to be protected against damages caused by fire. Suitable for fixed, same as for mobile installation, but free of mechanical stress; for dry and damp environment, not for outdoor application. Resistant to majority of most frequently used oils.

advantages:

- halogen-free, no release of toxic or corrosive gases under fire
- reduced smoke occurrence under fire
- no flame propagation in vertical cable bundle

Technical data

Temperature during installation:	-5 °C up to +50 °C
Fixed installed Temperature:	-20 °C up to +70 °C
Max. operating temperature:	70 °C
At short circuit of max. 5 s:	up to 150 °C
Nominal voltage:	U /U = 300/500 V
Test voltage:	2000 V
Minimal inner bending radius:	
Fixed installation:	4D
Mobile installation:	15D
Flame retardant:	IEC 60332-1
Halogen-free:	IEC 60754-1
Non-corrosive combustion gases:	IEC 60754-2
Low smoke density:	IEC 61034-2

Design Standards

IEC 60502-1
VDE 0276-603

HSLH(Cross section 0.75mm²-1.0mm²)

CU/XLHF/HFPO

Cable code	number of cores x conductor cross-section	Construction of individual conductor	External diameter	Insulation thickness	Sheath thickness	Conductor resistance at 20 °C	Cable weight	Packing*
	N x mm ²	nominal n x mm	approx. mm	approx. mm	approx. mm	max. /km	approx. kg/km	
Cross section :0.75 mm ²								
9275	2 x 0,75	24 x 0,20	5,5	0,45	0,6	26,0	35	CUT
9375	3 x 0,75	24 x 0,20	6,0	0,45	0,6	26,0	65	CUT
9475	4 x 0,75	24 x 0,20	6,5	0,45	0,7	26,0	80	CUT
9575	5 x 0,75	24 x 0,20	7,3	0,45	0,7	26,0	90	CUT
9775	7 x 0,75	24 x 0,20	7,5	0,45	0,8	26,0	125	CUT
91275	12 x 0,75	24 x 0,20	10,2	0,45	0,9	26,0	195	CUT
91875	18 x 0,75	24 x 0,20	11,9	0,45	1,1	26,0	285	CUT
92575	25 x 0,75	24 x 0,20	14,6	0,45	1,2	26,0	390	CUT
93475	34 x 0,75	24 x 0,20	16,4	0,45	1,4	26,0	650	CUT
93775	37 x 0,75	24 x 0,20	17,2	0,45	1,4	26,0	800	CUT
94175	41 x 0,75	24 x 0,20	17,6	0,45	1,4	26,0	820	CUT
94275	42 x 0,75	24 x 0,20	17,8	0,45	1,5	26,0	821	CUT
95075	50 x 0,75	24 x 0,20	19,8	0,45	1,6	26,0	825	CUT
96175	61 x 0,75	24 x 0,20	20,9	0,45	1,6	26,0	1030	CUT
Cross section :1.0 mm ²								
9210	2 x 1,0	32 x 0,20	5,7	0,45	0,6	19,5	60	CUT
9310	3 x 1,0	32 x 0,20	6,4	0,45	0,6	19,5	65	CUT
9410	4 x 1,0	32 x 0,20	7,0	0,45	0,7	19,5	90	CUT
9510	5 x 1,0	32 x 0,20	7,8	0,45	0,7	19,5	115	CUT
9710	7 x 1,0	32 x 0,20	8,1	0,45	0,8	19,5	150	CUT
9810	8 x 1,0	32 x 0,20	9,4	0,45	0,8	19,5	205	CUT
91010	10 x 1,0	32 x 0,20	10,4	0,45	0,8	19,5	250	CUT
91210	12 x 1,0	32 x 0,20	11,1	0,45	1,0	19,5	235	CUT
91610	16 x 1,0	32 x 0,20	12,0	0,45	1,0	19,5	360	CUT
91810	18 x 1,0	32 x 0,20	13,4	0,45	1,1	19,5	330	CUT
92010	20 x 1,0	32 x 0,20	13,5	0,45	1,1	19,5	440	CUT
92510	25 x 1,0	32 x 0,20	16,2	0,45	1,3	19,5	550	CUT
93410	34 x 1,0	32 x 0,20	17,4	0,45	1,4	19,5	690	CUT
93710	37 x 1,0	32 x 0,20	18,4	0,45	1,4	19,5	850	CUT
94110	41 x 1,0	32 x 0,20	18,9	0,45	1,4	19,5	930	CUT
94210	42 x 1,0	32 x 0,20	18,9	0,45	1,5	19,5	855	CUT
95010	50 x 1,0	32 x 0,20	21,0	0,45	1,6	19,5	980	CUT
96110	61 x 1,0	32 x 0,20	22,2	0,45	1,6	19,5	1150	CUT

HSLH (Cross section 1.5mm²-2.5mm²)

CU/XLHF/HFPO



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sheath colour:	Grey (RAL 7001)

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Fixed installed Temperature:	-20 °C up to +70 °C
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Nominal voltage:	U /U = 300/500 V
Test voltage:	2000 V
Minimal inner bending radius:	
Fixed installation:	4D
Mobile installation:	15D
Flame retardant:	IEC 60332-1
Halogen-free:	IEC 60754-1
Non-corrosive combustion gases:	IEC 60754-2
Low smoke density:	IEC 61034-2

Design Standards

IEC 60502-1
VDE 0276-603

HSLH(Cross section 1.5mm²-2.5mm²)

CU/XLHF/HFPO

Cable code	number of cores x conductor cross-section	Construction of individual conductor	External diameter	Insulation thickness	Sheath thickness	Conductor resistance at 20 °C	Cable weight	Packing*
Cross section : 1.5 mm ²								
9215	2 x 1,5	30 x 0,25	6,3	0,50	0,7	13,3	90	CUT
9315	3 x 1,5	30 x 0,25	7,3	0,50	0,7	13,3	100	CUT
9415	4 x 1,5	30 x 0,25	7,8	0,50	0,8	13,3	120	CUT
9515	5 x 1,5	30 x 0,25	8,9	0,50	0,8	13,3	150	CUT
9715	7 x 1,5	30 x 0,25	9,8	0,50	0,9	13,3	195	CUT
9815	8 x 1,5	30 x 0,25	10,6	0,50	1,1	13,3	280	CUT
91015	10 x 1,5	30 x 0,25	11,7	0,50	1,3	13,3	310	CUT
91215	12 x 1,5	30 x 0,25	13,2	0,50	1,5	13,3	315	CUT
91615	16 x 1,5	30 x 0,25	13,8	0,50	1,6	13,3	420	CUT
91815	18 x 1,5	30 x 0,25	15,9	0,50	1,8	13,3	560	CUT
92015	20 x 1,5	30 x 0,25	15,2	0,50	1,8	13,3	590	CUT
92515	25 x 1,5	30x0,25	19,2	0,50	1,8	13,3	640	CUT
93415	34 x 1,5	30 x 0,25	19,8	0,50	1,8	13,3	900	CUT
93715	37 x 1,5	30 x 0,25	20,2	0,50	1,8	13,3	1150	CUT
95015	50 x 1,5	30 x 0,25	23,7	0,50	1,8	13,3	1420	CUT
96115	61 x 1,5	30 x 0,25	25,3	0,50	1,8	13,3	1650	CUT
Cross section : 2.5 mm ²								
9225	2 x 2,5	50 x 0,25	7,7	0,55	0,8	7,98	130	CUT
9325	3 x 2,5	50 x 0,25	9,0	0,55	0,8	7,98	155	CUT
9425	4 x 2,5	50 x 0,25	10,0	0,55	0,9	7,98	240	CUT
9525	5 x 2,5	50 x 0,25	11,0	0,55	0,9	7,98	250	CUT
9725	7 x 2,5	50 x 0,25	12,7	0,55	1,0	7,98	300	CUT
9825	8 x 2,5	50 x 0,25	13,2	0,55	1,3	7,98	380	CUT
91025	10 x 2,5	50 x 0,25	14,7	0,55	1,5	7,98	450	CUT
91225	12 x 2,5	50 x 0,25	16,5	0,55	1,7	7,98	520	CUT
91625	16 x 2,5	50 x 0,25	17,5	0,55	1,8	7,98	750	CUT
91825	18 x 2,5	50 x 0,25	18,4	0,55	1,8	7,98	760	CUT
92025	20 x 2,5	50 x 0,25	18,7	0,55	1,8	7,98	1080	CUT
92525	25 x 2,5	50 x 0,25	13,8	0,55	1,8	7,98	1030	CUT
93025	30 x 2,5	50 x 0,25	23,7	0,55	1,8	7,98	1290	CUT

HSLH(Cross section 4.0mm²-10.0mm²)

CU/XLHF/HFPO



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Low smoke density:	IEC 61034-2

Design Standards

IEC 60502-1
VDE 0276-603

HSLH(Cross section 4mm²-10mm²)

CU/XLHF/HPPO

Cable code	number of cores x conductor cross-section	Construction of individual conductor	External diameter	Insulation thickness	Sheath thickness	Conductor resistance at 20 °C	Cable weight	Packing*
Cross section : 4 mm ²								
924	2 x 4	56 x 0,30	9,8	0,6	0,9	4,95	200	CUT
934	3 x 4	56 x 0,30	11,5	0,6	0,9	4,95	240	CUT
944	4 x 4	56 x 0,30	11,7	0,6	1,0	4,95	310	CUT
954	5 x 4	56 x 0,30	13,2	0,6	1,1	4,95	360	CUT
974	7 x 4	56 x 0,30	16,0	0,6	1,1	4,95	470	CUT
984	8 x 4	56 x 0,30	17,8	0,6	1,5	4,95	610	CUT
9104	10 x 4	56 x 0,30	19,6	0,6	1,8	4,95	800	CUT
9124	12 x 4	56 x 0,30	20,2	0,6	1,8	4,95	985	CUT
9164	16 x 4	56 x 0,30	22,8	0,6	1,8	4,95	1360	CUT
Cross section : 6 mm ²								
926	2 x 6	84 x 0,30	12,0	0,6	0,9	3,30	260	CUT
936	3 x 6	84 x 0,30	12,7	0,6	1,0	3,30	400	CUT
946	4 x 6	84 x 0,30	14,1	0,6	1,1	3,30	470	CUT
956	5 x 6	84 x 0,30	16,5	0,6	1,2	3,30	590	CUT
976	7 x 6	84 x 0,30	17,6	0,6	1,3	3,30	790	CUT
Cross section : 10mm ²								
9210	2 x 10	80 x 0,40	15,0	0,7	1,1	1,91	500	CUT
9310	3 x 10	80 x 0,40	16,2	0,7	1,2	1,91	760	CUT
9410	4 x 10	80 x 0,40	18,0	0,7	1,3	1,91	770	CUT
9510	5 x 10	80 x 0,40	19,8	0,7	1,4	1,91	920	CUT
9710	7 x 10	80 x 0,40	22,5	0,7	1,8	1,91	1290	CUT

CONDUCTORS

Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DIAMETER OF WIRES IN CONDUCTOR mm	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C
		Plain Wires ohms/km
0.5	0.21	39
0.75	0.21	26
1	0.21	19.5
1.5	0.26	13.3
2.5	0.26	7.98
4	0.31	4.95
6	0.31	3.3
10	0.41	1.91
16	0.41	1.21
25	0.41	0.78

The above table is in accordance with BS EN 60228 (previously BS 6360)