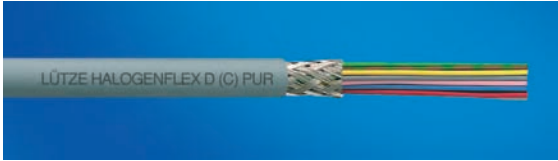


9. Halogen-free data and control cables



Halogen-free data cables · shielded

HALOGENFLEX D(C)PUR



Application

- Ideal for all application locations in which the release of halogens in the event of fire is to be avoided, above all in rooms and public buildings with high concentrations of people as well as machine and device construction, transport and conveyor technology, heating, climate technology
- For trouble-free transmission in all areas of electronics, measuring, control and regulation technology
- Connection and data cable for signal, measurement and data transmission for telephone and voice transmission
- In dry and moist rooms
- As control, measurement and regulation cable medium operating conditions
- For flexible application without compulsory guide

Properties

- Environmentally friendly halogen-free cable
- Halogen-free conductors prevent poisonous and corrosive fire gases from damaging property and causing injury to people
- Very good shielding attenuation
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Rated voltage	300
Test voltage	1200 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-25 °C to +70 °C
fixed	-40 °C to +70 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1
Halogen-free	according to VDE 0482 T. 267-2-1; EN 50267-2-1; IEC 60754-1
Corrosiveness of smoke emissions	according to VDE 0482 T. 267-2-2; EN 50267-2-2; IEC 60754-2

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special-TPE conductor insulation
- Conductors colour-coded according to DIN 47100
- Conductors stranded layers
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Full polyurethane jacket, matt, adhesion-free surface
- Jacket colour grey RAL 7001 or 7032

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.14 mm²				
113780	(2×0.14)	3.9	2.0	0.7
113781	(3×0.14)	4.1	2.4	1.2
113782	(4×0.14)	4.6	2.7	1.4
113783	(5×0.14)	4.9	3.2	1.6
113784	(7×0.14)	5.2	3.9	2.0
113785	(10×0.14)	6.5	5.5	3.3
113786	(12×0.14)	6.7	6.0	3.0
113787	(18×0.14)	7.6	8.8	5.0
113788	(25×0.14)	9.1	11.3	6.3
0.25 mm²				
113791	(3×0.25)	4.7	2.9	1.8
113792	(4×0.25)	4.8	3.4	2.2
113793	(5×0.25)	5.6	4.3	2.5
113794	(7×0.25)	6.0	5.1	3.0
113795	(10×0.25)	7.4	8.0	5.0
113796	(12×0.25)	7.6	9.4	5.0
113797	(18×0.25)	8.8	12.7	7.8
113798	(25×0.25)	10.2	16.5	9.2
0.34 mm²				
113801	(3×0.34)	5.3	3.9	2.0
113802	(4×0.34)	5.3	4.7	2.4
113803	(5×0.34)	6.4	5.8	2.9
113804	(7×0.34)	6.9	7.7	4.4
113805	(10×0.34)	8.4	11.2	6.0
113806	(12×0.34)	8.7	11.8	6.5
113807	(18×0.34)	10.1	17.1	9.5
113808	(25×0.34)	12.3	22.7	14.2
0.5 mm²				
113810	(2×0.5)	5.2	3.6	1.9
113811	(3×0.5)	5.5	4.6	2.5
113812	(4×0.5)	5.9	6.2	3.7
113813	(5×0.5)	6.3	7.6	4.4
113814	(7×0.5)	7.3	9.9	5.8
113815	(10×0.5)	8.8	12.2	7.6
113816	(12×0.5)	9.2	14.1	8.8
113817	(18×0.5)	10.5	21.0	12.1
113818	(25×0.5)	13.0	28.4	18.8
0.75 mm²				
113820	(2×0.75)	5.8	4.7	2.5
113821	(3×0.75)	6.1	5.2	3.7
113822	(4×0.75)	6.8	7.8	4.9
113823	(5×0.75)	7.1	9.0	5.8
113824	(7×0.75)	8.0	12.0	7.8
113825	(10×0.75)	10.0	17.6	12.3
113826	(12×0.75)	10.2	19.7	11.9
113827	(18×0.75)	11.8	20.3	16.8

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

Halogen-free data cables · stranded pairs, shielded

HALOGENFLEX D (C)PUR TP



Application

- Ideal for all application locations in which the release of halogens in the event of fire is to be avoided, above all in rooms and public buildings with high concentrations of people as well as machine and device construction, transport and conveyor technology, heating, climate technology
- In dry and moist rooms
- For trouble-free transmission in all areas of electronics, measuring, control and regulation technology
- As control, measurement and control cable for medium operating conditions
- For flexible use without compulsory guide

Properties

- Environmentally friendly, halogen-free data cable
- High active and passive interference resistance
- High crosstalk attenuation through paired stranding
- Low capacitance, very good electrical properties
- Very good cold flexibility
- Halogen-free, no corrosive gases
- Low adhesion, abrasion-proof, nick-resistant, tear-propagation-resistant, hydrolisis-resistant, microbe-resistant, and rot-resistant
- Widely resistant to acids and bases (see tech. information)
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Rated voltage	300
Test voltage	3000 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-15 °C to +80 °C
fixed	-40 °C to +80 °C
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1
Halogen-free	Halogen-free according to VDE 0482 T. 267-2-1; EN 50267-2-1; IEC 60754-1
Corrosiveness of smoke emissions	according to VDE 0482 T. 267-2-2; EN 50267-2-2; IEC 60754-2

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special-TPE conductor insulation
- Conductors colour-coded according to DIN 47100
- Conductors stranded pairs
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Full polyurethane jacket, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.14 mm²				
113860	(2×2×0.14)	5.5	3.8	2.1
113861	(3×2×0.14)	5.8	4.8	2.5
113862	(4×2×0.14)	6.2	5.4	2.4
113863	(6×2×0.14)	7.3	5.6	3.8
113864	(7×2×0.14)	7.5	9.5	5.3
113865	(12×2×0.14)	9.3	13.7	7.8
0.25 mm²				
113868	(2×2×0.25)	6.0	4.5	2.6
113869	(3×2×0.25)	6.8	6.9	4.1
113870	(4×2×0.25)	7.0	8.3	5.0
113871	(6×2×0.25)	8.0	11.5	6.5
113872	(7×2×0.25)	8.5	11.9	7.0
113873	(12×2×0.25)	10.6	17.6	10.7
113874	(15×2×0.25)	11.8	21.3	12.3
0.34 mm²				
113876	(2×2×0.34)	6.9	6.9	4.2
113877	(3×2×0.34)	7.4	8.4	4.0
113878	(4×2×0.34)	8.0	9.4	5.2
113879	(6×2×0.34)	9.4	14.9	8.4
113880	(7×2×0.34)	10.0	15.4	9.1
113881	(12×2×0.34)	12.5	24.5	13.9
0.5 mm²				
113884	(2×2×0.5)	7.3	7.1	4.1
113885	(3×2×0.5)	7.9	9.2	5.3
113886	(4×2×0.5)	9.0	12.5	6.6
113887	(6×2×0.5)	10.5	17.8	10.7
113888	(7×2×0.5)	11.2	18.6	11.7
113889	(12×2×0.5)	14.5	33.2	20.3
0.75 mm²				
113892	(2×2×0.75)	8.0	10.5	6.4
113893	(3×2×0.75)	8.6	13.8	7.0
113894	(4×2×0.75)	10.0	16.8	10.6
113895	(6×2×0.75)	12.0	23.7	13.8
113896	(7×2×0.75)	12.5	25.4	16.0
113897	(12×2×0.75)	15.8	43.3	24.2

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

Halogen-free data cables · shielded

HALOGENFLEX LIH (C) H-D



Application

- Ideal for all application locations in which the release of halogens in the event of fire is to be avoided, above all in rooms and public buildings with high concentrations of people
- For trouble-free transmission in all areas of electronics, measuring, control and regulation technology
- Connection and data cable for signal, measurement and data transmission for telephone and voice transmission.
- In dry and moist rooms
- As control, measurement and regulation cable medium operating conditions
- For flexible application without compulsory guide

Properties

- Environmentally friendly halogen-free cable
- Halogen-free conductors prevent poisonous and corrosive fire gases from damaging property and causing injury to people
- Very good shielding attenuation
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Rated voltage	300
Test voltage	1200 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-25 °C to +70 °C
fixed	-40 °C to +70 °C
Minimum bending radius	
moving	Cable diameter × 15
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1
Halogen-free	according to VDE 0482 T. 267-2-1; EN 50267-2-1; IEC 60754-1
Corrosiveness of smoke emissions	according to VDE 0482 T. 267-2-2; EN 50267-2-2; IEC 60754-2
Smoke density	VDE 0482 section 268-2; EN 50268-2;

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special conductor insulation HI2 according to VDE 0207 T. 23
- Conductors colour-coded according to DIN 47100
- Conductors stranded layers
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Outer jacket Flame-retardant, halogen-free special thermoplast HM2 according to VDE 0207T. 24
- Jacket colour grey RAL 7001 or 7032

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.14 mm²				
103681	(3×0.14)	4.0	2.4	1.2
103682	(4×0.14)	4.2	2.8	1.4
103683	(5×0.14)	4.9	3.3	1.7
103684	(7×0.14)	4.9	3.9	2.0
103685	(10×0.14)	5.8	5.3	3.4
103686	(12×0.14)	6.6	7.1	3.7
103687	(18×0.14)	7.6	9.4	4.9
103688	(25×0.14)	9.1	12.7	6.3
0.25 mm²				
103690	(3×0.25)	4.7	3.3	1.7
103691	(4×0.25)	5.0	3.9	2.0
103692	(5×0.25)	5.5	4.6	2.4
103693	(7×0.25)	6.1	6.4	3.7
103694	(10×0.25)	6.8	8.4	5.1
103695	(12×0.25)	8.0	10.2	5.7
103696	(18×0.25)	8.4	13.8	8.6
103697	(25×0.25)	11.3	20.1	11.1
0.34 mm²				
103699	(3×0.34)	4.9	3.7	2.0
103700	(4×0.34)	5.3	4.4	2.5
103701	(5×0.34)	6.0	6.1	3.6
103702	(7×0.34)	6.4	7.3	4.4
103703	(10×0.34)	8.3	10.8	6.1
103704	(12×0.34)	8.4	11.7	6.7
103705	(18×0.34)	10.0	17.4	10.7
103706	(25×0.34)	11.9	23.7	13.6
0.5 mm²				
103707	(2×0.5)	5.6	4.1	2.2
103708	(3×0.5)	6.4	6.4	3.4
103709	(4×0.5)	6.8	7.6	4.1
103710	(5×0.5)	7.5	8.8	4.8
103711	(7×0.5)	8.0	11.2	6.1
103712	(10×0.5)	9.6	16.5	9.7
103713	(12×0.5)	10.2	18.3	10.7
103714	(18×0.5)	12.3	26.2	14.6
103715	(25×0.5)	14.3	34.1	18.9
0.75 mm²				
103717	(3×0.75)	7.0	7.7	4.4
103718	(4×0.75)	7.6	10.0	5.4
103719	(5×0.75)	8.3	11.1	6.4
103720	(7×0.75)	9.1	14.8	9.1
103721	(10×0.75)	11.7	21.6	12.6
103722	(12×0.75)	11.8	23.8	14.1
103723	(18×0.75)	13.8	32.9	19.9
103724	(25×0.75)	16.5	44.5	25.9

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

Halogen-free data cables · stranded pairs, shielded

HALOGENFLEX LIH (C) H-D TP



Application

- Ideal for all application locations in which the release of halogens in the event of fire is to be avoided, above all in rooms and public buildings with high concentrations of people
- For trouble-free transmission in all areas of electronics, measuring, control and regulation technology
- Connection and data cable for signal, measurement and data transmission for telephone and voice transmission.
- In dry and moist rooms
- As control, measurement and regulation cable medium operating conditions

Properties

- Environmentally friendly halogen-free cable
- Halogen-free conductors prevent poisonous and corrosive fire gases from damaging property and causing injury to people
- Very good shielding attenuation
- High crosstalk attenuation through paired stranding
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Rated voltage	300 V
Test voltage	1200 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-25 °C to +70 °C
fixed	-40 °C to +70 °C
Minimum bending radius	
moving	Cable diameter × 15
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; IEC 60332-1
Halogen-free	according to VDE 0482 T. 267-2-1; EN 50267-2-1; IEC 60754-1
Corrosiveness of smoke emissions	according to VDE 0482 T. 267-2-2; EN 50267-2-2; IEC 60754-2
Smoke density	VDE 0482 section 268-2; EN 50268-2;

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special conductor insulation HI2 according to VDE 0207 T. 23
- Conductors colour-coded according to DIN 47100
- Conductors stranded pairs, foil banding
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Outer jacket Flame-retardant, halogen-free special thermoplast HM2 according to VDE 0207T. 24
- Jacket colour grey RAL 7001 or 7032

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.14 mm²				
103780	(2×2×0.14)	5.2	3.5	1.9
103781	(3×2×0.14)	5.4	3.8	2.2
103782	(4×2×0.14)	5.5	4.3	3.2
103783	(5×2×0.14)	6.2	4.9	3.5
103784	(8×2×0.14)	7.5	9.5	5.1
103785	(10×2×0.14)	8.3	11.2	6.0
0.25 mm²				
103786	(2×2×0.25)	6.7	4.5	3.1
103787	(3×2×0.25)	7.1	6.7	3.7
103788	(4×2×0.25)	7.9	8.3	4.5
103789	(5×2×0.25)	8.6	8.6	5.3
103790	(8×2×0.25)	9.9	12.3	8.4
103791	(10×2×0.25)	11.2	13.0	10.1
0.34 mm²				
103792	(2×2×0.34)	7.0	6.9	3.5
103793	(3×2×0.34)	7.4	9.4	4.4
103794	(4×2×0.34)	8.3	11.1	5.5
103795	(5×2×0.34)	9.3	12.3	7.5
103796	(8×2×0.34)	10.5	15.9	10.1
103797	(10×2×0.34)	12.2	20.9	12.2
0.5 mm²				
103798	(2×2×0.5)	8.7	7.8	4.7
103799	(3×2×0.5)	9.2	10.9	5.9
103800	(4×2×0.5)	10.8	13.5	7.3
103801	(5×2×0.5)	11.9	16.1	10.1
103802	(8×2×0.5)	13.4	19.4	13.8
103803	(10×2×0.5)	15.1	24.4	16.7
0.75 mm²				
103804	(2×2×0.75)	9.8	10.5	7.1
103805	(3×2×0.75)	10.4	13.8	8.9
103806	(4×2×0.75)	10.7	15.8	11.1
103807	(5×2×0.75)	13.3	19.9	13.3
103808	(8×2×0.75)	15.0	27.1	18.6
103809	(10×2×0.75)	17.5	34.3	22.6

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC