

# HELUDATA® EN-50288-7 XLPE/LS0H IOSA 300

Instrumentation cable, halogen-free, XLPE/IS/OS/LS0H/SWA/LS0H



HELUDATA® EN-50288-7 XLPE/LS0H IOSA 300 CE

## Technical data

- Instrumentation cable acc. to EN 50288-7
- **Temperature range**  
flexing -5°C to +50°C  
fixed installation -30°C to +90°C
- **Nominal voltage**  
U AC 300 V
- **Test voltage**  
core/core 1500 V  
core/screen 1500 V
- **Minimum bending radius**  
fixed installation 10x outer Ø
- **Insulation resistance**  
> 5000 MΩxkm
- **Mutual capacitance**  
max. 150 pF/m
- **Inductance**  
max. 1 mH/km
- **L/R (ratio)**  
0,5 mm<sup>2</sup> < 25 µH/Ω  
0,75 mm<sup>2</sup> < 25 µH/Ω  
1 mm<sup>2</sup> < 25 µH/Ω  
1,5 mm<sup>2</sup> < 40 µH/Ω  
2,5 mm<sup>2</sup> < 60 µH/Ω

## Cable structure

- Bare copper conductor, multiple wired acc. to DIN VDE 0295 cl.2 / IEC 60228 cl.2
- Core insulation: XLPE acc. to EN 50290-2-29
- Cores stranded in pairs, triads or quads
- Cores twisted together in cable elements in optimal lay length
- Core identification  
pairs: WH, BK  
triads: WH, BK, RD  
quads: WH, BK, RD, GY  
white cores with continuous black numbering
- Individual screen: pairs, triads or quads indiv. screened with AL/PE tape over tinned copper drain wire (solid 0,6 mm)
- Cable elements are stranded in optimal lay length
- Overall screen: AL/PE tape over tinned copper stranded drain wire (7x0,3 mm)
- Inner sheath: LS0H acc. to EN 50290-2-27
- Armouring: single layer of galvanised round steel wires acc. to EN 10257-1
- Outer sheath: LS0H acc. to EN 50290-2-27
- Outer sheath colour: black or blue
- With meter marking

## Properties

- Low level of line attenuations and low mutual capacitances enable long transmission distances
- Cable elements are produced of non-hygroscopic materials

## Tests

- Flame retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- Flame test on bunched wires acc. to DIN VDE 0482-332-3-22 / DIN EN 60332-3-22 / IEC 60332-3-22 (Cat. A)
- Halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- Corrosiveness of combustion gases acc. to DIN VDE 0482-754-2 / DIN EN 60754-2 / IEC 60754-2
- Smoke density acc. to DIN VDE 0482-1034-1+2 / DIN EN 61034-1+2 / IEC 61034-1+2
- Oil resistant acc. to ICEA S-73-532 / NEMA WC 57
- UV resistant acc. to UL 1581 section 1200

## Note

- Alternative denomination: **RE-2X(St)HRH PiMF**
- Suitable for direct burial
- The conductor is metrically constructed (mm<sup>2</sup>). The AWG designation is approximate and purely informative.
- We also offer cable glands **HELUTOP® HT-MS-EX-d / e4**

## Application

For the transmission of digital and analog signals in harsh environments like oil, gas and petrochemical industries. The cables are suitable for fixed installation in dry and damp locations, open spaces and in underground networks.

CE = Product complies to the Low-Voltage Directive 2014/35/EU.

Part no.	Sheath colour	Sheath colour	No.pairs x cross-sec.	AWG-No.	Outer Ø min. - max.	Copper weight	Weight
BK	BU	mm <sup>2</sup>			mm	kg / km	app. kg / km
11010545	11010681	2 x 2 x 0,5	20	12,2 - 15,2	31,6	318	
11010546	11010682	4 x 2 x 0,5	20	13,4 - 16,8	58,2	408	
11010547	11010683	5 x 2 x 0,5	20	14,5 - 18,2	71,4	455	
11010548	11010684	6 x 2 x 0,5	20	15,3 - 19,4	84,7	503	
11010549	11010685	8 x 2 x 0,5	20	16,7 - 21,2	111,2	583	
11010550	11010686	10 x 2 x 0,5	20	18,5 - 23,5	137,8	652	
11010551	11010687	12 x 2 x 0,5	20	19,6 - 24,9	164,4	854	
11010552	11010688	15 x 2 x 0,5	20	21,2 - 27,1	204,1	1011	
11010553	11010689	16 x 2 x 0,5	20	21,2 - 27,1	217,4	1027	
11010554	11010690	20 x 2 x 0,5	20	23,3 - 29,9	270,5	1184	
11010555	11010691	24 x 2 x 0,5	20	25,7 - 33,0	323,6	1329	
11010556	11010692	30 x 2 x 0,5	20	26,9 - 34,6	403,2	1543	
11010557	11010693	36 x 2 x 0,5	20	29,0 - 37,3	482,9	1946	
11010558	11010694	2 x 3 x 0,5	20	13,0 - 16,3	42,0	364	
11010559	11010695	3 x 3 x 0,5	20	13,5 - 16,9	60,5	410	
11010565	11010701	2 x 4 x 0,5	20	14,2 - 17,9	52,4	426	
11010566	11010702	3 x 4 x 0,5	20	15,0 - 18,9	76,0	474	

Continuation ►

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Part no. Sheath colour BK	Sheath colour BU	No.pairs x cross-sec. mm <sup>2</sup>	AWG-No.	Outer Ø min. - max. mm	Copper weight kg / km	Weight app. kg / km
11010572	11010708	2 x 2 x 0,75	19	12,8 - 15,5	42,0	354
11010573	11010709	4 x 2 x 0,75	19	14,4 - 17,5	78,9	454
11010574	11010710	5 x 2 x 0,75	19	15,3 - 18,7	97,3	506
11010575	11010711	6 x 2 x 0,75	19	16,3 - 19,9	115,8	583
11010576	11010712	8 x 2 x 0,75	19	18,0 - 22,0	152,7	657
11010577	11010713	10 x 2 x 0,75	19	20,5 - 25,0	189,6	888
11010578	11010714	12 x 2 x 0,75	19	21,0 - 25,8	226,6	971
11010579	11010715	15 x 2 x 0,75	19	23,0 - 28,2	281,9	1159
11010580	11010716	16 x 2 x 0,75	19	23,0 - 28,2	300,3	1180
11010581	11010717	20 x 2 x 0,75	19	25,3 - 31,0	374,2	1368
11010582	11010718	24 x 2 x 0,75	19	27,7 - 34,1	448,0	1553
11010583	11010719	30 x 2 x 0,75	19	30,0 - 37,0	558,7	2013
11010584	11010720	36 x 2 x 0,75	19	32,4 - 39,9	669,5	2260
11010585	11010721	2 x 3 x 0,75	19	13,7 - 16,7	57,6	410
11010586	11010722	3 x 3 x 0,75	19	14,5 - 17,7	83,8	459
11010592	11010728	2 x 4 x 0,75	19	15,3 - 18,6	73,1	472
11010593	11010729	3 x 4 x 0,75	19	16,0 - 19,5	107,1	553
11010599	11010735	2 x 2 x 1	18	13,2 - 16,3	52,4	393
11010600	11010736	4 x 2 x 1	18	14,8 - 18,4	99,7	494
11010601	11010737	5 x 2 x 1	18	15,8 - 19,7	123,2	575
11010602	11010738	6 x 2 x 1	18	16,8 - 21,1	146,9	644
11010603	11010739	8 x 2 x 1	18	18,6 - 23,3	194,2	870
11010604	11010740	10 x 2 x 1	18	21,1 - 26,6	241,5	980
11010605	11010741	12 x 2 x 1	18	21,9 - 27,6	288,8	1092
11010606	11010742	15 x 2 x 1	18	23,8 - 30,1	359,6	1312
11010607	11010743	16 x 2 x 1	18	23,8 - 30,1	383,3	1339
11010608	11010744	20 x 2 x 1	18	26,3 - 33,3	477,9	1566
11010609	11010745	24 x 2 x 1	18	29,0 - 36,8	572,4	1968
11010610	11010746	30 x 2 x 1	18	31,1 - 39,5	714,2	2273
11010611	11010747	36 x 2 x 1	18	33,5 - 42,6	856,1	2592
11010612	11010748	2 x 3 x 1	18	14,1 - 17,5	73,1	445
11010613	11010749	3 x 3 x 1	18	14,9 - 18,5	107,1	502
11010619	11010755	2 x 4 x 1	18	15,7 - 19,6	93,9	536
11010620	11010756	3 x 4 x 1	18	16,5 - 20,7	138,2	612
11010627	11010763	2 x 2 x 1,5	16	15,3 - 18,4	73,1	467
11010628	11010764	4 x 2 x 1,5	16	17,2 - 20,8	141,2	625
11010629	11010765	5 x 2 x 1,5	16	19,3 - 23,2	175,1	855
11010630	11010766	6 x 2 x 1,5	16	20,6 - 24,9	209,1	964
11010631	11010767	8 x 2 x 1,5	16	22,8 - 27,6	277,1	1106
11010632	11010768	10 x 2 x 1,5	16	25,7 - 31,0	345,2	1275
11010633	11010769	12 x 2 x 1,5	16	26,4 - 31,9	413,2	1411
11010634	11010770	15 x 2 x 1,5	16	29,8 - 36,1	515,2	1902
11010635	11010771	16 x 2 x 1,5	16	29,8 - 36,1	549,2	1941
11010636	11010772	20 x 2 x 1,5	16	33,0 - 40,0	685,3	2254
11010637	11010773	24 x 2 x 1,5	16	36,4 - 44,1	821,2	2577
11010638	11010774	30 x 2 x 1,5	16	38,4 - 46,7	1025,2	3031
11010639	11010775	36 x 2 x 1,5	16	42,1 - 51,1	1229,4	3809
11010640	11010776	2 x 3 x 1,5	16	16,5 - 19,9	104,2	561
11010641	11010777	3 x 3 x 1,5	16	17,4 - 20,9	153,8	644
11010647	11010783	2 x 4 x 1,5	16	18,6 - 22,5	135,3	800
11010648	11010784	3 x 4 x 1,5	16	20,2 - 24,4	200,4	919

Dimensions and specifications may be changed without prior notice.