HELUDATA® EN-50288-7 XLPE/PVC IOSA 300

Instrumentation cable, XLPE/IS/OS/PVC/SWA/PVC

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 mm² < 25 µH/Ω
  0,75 mm² < 25 µH/Ω
  1 mm² < 25 µH/Ω
  1,5 mm² < 40 µH/Ω
  2,5 mm² < 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: PVC acc. to EN 50290-2-22
- Armouring: single layer of galvanised round steel wires acc. to EN 10257-1
- Outer sheath: PVC acc. to EN 50290-2-22
- 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)
- 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)YRY PiMF
- Suitable for direct burial
- The conductor is metrically constructed (mm²). 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 conforms with Low-Voltage Directive 2014/35/EU.

Part no. Sheath colour BK	Sheath colour BU	No.pairs x cross-sec. mm²	AWG-No.	Outer Ø min. - max. mm	Copper weight kg / km	Weight app. kg / km
11012841	11012977	2 x 2 x 0,5	20	12,2 - 15,2	31,6	326
11012842	11012978	4 x 2 x 0,5	20	13,4 - 16,8	58,2	418
11012843	11012979	5 x 2 x 0,5	20	14,5 - 18,2	71,4	467
11012844	11012980	6 x 2 x 0,5	20	15,3 - 19,4	84,7	518
11012845	11012981	8 x 2 x 0,5	20	16,7 - 21,2	111,2	597
11012846	11012982	10 x 2 x 0,5	20	18,5 - 23,5	137,8	663
11012847	11012983	12 x 2 x 0,5	20	19,6 - 24,9	164,4	869
11012848	11012984	15 x 2 x 0,5	20	21,2 - 27,1	204,1	1030
11012849	11012985	16 x 2 x 0,5	20	21,2 - 27,1	217,4	1046
11012850	11012986	20 x 2 x 0,5	20	23,3 - 29,9	270,5	1203
11012851	11012987	24 x 2 x 0,5	20	25,7 - 33,0	323,6	1349
11012852	11012988	30 x 2 x 0,5	20	26,9 - 34,6	403,2	1566
11012853	11012989	36 x 2 x 0,5	20	29,0 - 37,3	482,9	1977
11012854	11012990	2 x 3 x 0,5	20	13,0 - 16,3	42,0	373
11012855	11012991	3 x 3 x 0,5	20	13,5 - 16,9	60,5	420
11012861	11012997	2 x 4 x 0,5	20	14,2 - 17,9	52,4	436
11012862	11012998	3 x 4 x 0,5	20	15,0 - 18,9	76,0	484

Continuation ▸

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Part no. Sheath colour BK	Sheath colour BU	No.pairs x cross-sec. mm²	AWG-No.	Outer Ø min. - max. mm	Copper weight kg / km	Weight app. kg / km
11012868	11013004	2 x 2 x 0,75	19	12,8 - 15,5	42,0	362
11012869	11013005	4 x 2 x 0,75	19	14,4 - 17,5	78,9	465
11012870	11013006	5 x 2 x 0,75	19	15,3 - 18,7	97,3	520
11012871	11013007	6 x 2 x 0,75	19	16,3 - 19,9	115,8	601
11012872	11013008	8 x 2 x 0,75	19	18,0 - 22,0	152,7	673
11012873	11013009	10 x 2 x 0,75	19	20,5 - 25,0	189,6	896
11012874	11013010	12 x 2 x 0,75	19	21,0 - 25,8	226,6	987
11012875	11013011	15 x 2 x 0,75	19	23,0 - 28,2	281,9	1181
11012876	11013012	16 x 2 x 0,75	19	23,0 - 28,2	300,3	1202
11012877	11013013	20 x 2 x 0,75	19	25,3 - 31,0	374,2	1389
11012878	11013014	24 x 2 x 0,75	19	27,7 - 34,1	448,0	1576
11012879	11013015	30 x 2 x 0,75	19	30,0 - 37,0	558,7	2041
11012880	11013016	36 x 2 x 0,75	19	32,4 - 39,9	669,5	2294
11012881	11013017	2 x 3 x 0,75	19	13,7 - 16,7	57,6	419
11012882	11013018	3 x 3 x 0,75	19	14,5 - 17,7	83,8	468
11012888	11013024	2 x 4 x 0,75	19	15,3 - 18,6	73,1	483
11012889	11013025	3 x 4 x 0,75	19	16,0 - 19,5	107,1	564
11012895	11013031	2 x 2 x 1	18	13,2 - 16,3	52,4	402
11012896	11013032	4 x 2 x 1	18	14,8 - 18,4	99,7	505
11012897	11013033	5 x 2 x 1	18	15,8 - 19,7	123,2	590
11012898	11013034	6 x 2 x 1	18	16,8 - 21,1	146,9	663
11012899	11013035	8 x 2 x 1	18	18,6 - 23,3	194,2	889
11012900	11013036	10 x 2 x 1	18	21,1 - 26,6	241,5	996
11012901	11013037	12 x 2 x 1	18	21,9 - 27,6	288,8	1108
11012902	11013038	15 x 2 x 1	18	23,8 - 30,1	359,6	1335
11012903	11013039	16 x 2 x 1	18	23,8 - 30,1	383,3	1362
11012904	11013040	20 x 2 x 1	18	26,3 - 33,3	477,9	1589
11012905	11013041	24 x 2 x 1	18	29,0 - 36,8	572,4	1995
11012906	11013042	30 x 2 x 1	18	31,1 - 39,5	714,2	2302
11012907	11013043	36 x 2 x 1	18	33,5 - 42,6	856,1	2631
11012908	11013044	2 x 3 x 1	18	14,1 - 17,5	73,1	455
11012909	11013045	3 x 3 x 1	18	14,9 - 18,5	107,1	512
11012915	11013051	2 x 4 x 1	18	15,7 - 19,6	93,9	548
11012916	11013052	3 x 4 x 1	18	16,5 - 20,7	138,2	624
11012923	11013059	2 x 2 x 1,5	16	15,3 - 18,4	73,1	477
11012924	11013060	4 x 2 x 1,5	16	17,2 - 20,8	141,2	639
11012925	11013061	5 x 2 x 1,5	16	19,3 - 23,2	175,1	875
11012926	11013062	6 x 2 x 1,5	16	20,6 - 24,9	209,1	990
11012927	11013063	8 x 2 x 1,5	16	22,8 - 27,6	277,1	1129
11012928	11013064	10 x 2 x 1,5	16	25,7 - 31,0	345,2	1276
11012929	11013065	12 x 2 x 1,5	16	26,4 - 31,9	413,2	1431
11012930	11013066	15 x 2 x 1,5	16	29,8 - 36,1	515,2	1932
11012931	11013067	16 x 2 x 1,5	16	29,8 - 36,1	549,2	1971
11012932	11013068	20 x 2 x 1,5	16	33,0 - 40,0	685,3	2282
11012933	11013069	24 x 2 x 1,5	16	36,4 - 44,1	821,2	2609
11012934	11013070	30 x 2 x 1,5	16	38,4 - 46,7	1025,2	3069
11012935	11013071	36 x 2 x 1,5	16	42,1 - 51,1	1229,4	3862
11012936	11013072	2 x 3 x 1,5	16	16,5 - 19,9	104,2	572
11012937	11013073	3 x 3 x 1,5	16	17,4 - 20,9	153,8	656
11012943	11013079	2 x 4 x 1,5	16	18,6 - 22,5	135,3	815
11012944	11013080	3 x 4 x 1,5	16	20,2 - 24,4	200,4	934

Dimensions and specifications may be changed without prior notice.