

HELUDATA® EN-50288-7 XLPE/PVC IOS 500

Instrumentation cable, XLPE/IS/OS/PVC



HELUDATA® EN-50288-7 XLPE/PVC IOS 500 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 500 V
- **Test voltage**
core/core 2000 V
core/screen 2000 V
- **Minimum bending radius**
fixed installation 7,5x outer Ø
- **Insulation resistance**
> 5000 MΩxkm
- **Mutual capacitance**
single pair 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: BU, BK
triads: BU, BK, RD
quads: BU, BK, RD, GY
blue 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)
- 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)Y PiMF
- Not 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

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 |
|---------------------------------|---------------------|---------------------------------|---------|------------------------------|--------------------------|------------------------|
| 11012569 | 11012705 | 2 x 2 x 0,5 | 20 | 9,6 - 12,2 | 31,6 | 110 |
| 11012570 | 11012706 | 4 x 2 x 0,5 | 20 | 11,3 - 14,4 | 58,2 | 163 |
| 11012571 | 11012707 | 5 x 2 x 0,5 | 20 | 12,3 - 15,7 | 71,4 | 203 |
| 11012572 | 11012708 | 6 x 2 x 0,5 | 20 | 13,6 - 17,3 | 84,7 | 247 |
| 11012573 | 11012709 | 8 x 2 x 0,5 | 20 | 15,4 - 19,7 | 111,2 | 287 |
| 11012574 | 11012710 | 10 x 2 x 0,5 | 20 | 17,4 - 22,4 | 137,8 | 337 |
| 11012575 | 11012711 | 12 x 2 x 0,5 | 20 | 18,2 - 23,3 | 164,4 | 386 |
| 11012576 | 11012712 | 15 x 2 x 0,5 | 20 | 20,4 - 26,1 | 204,1 | 499 |
| 11012577 | 11012713 | 16 x 2 x 0,5 | 20 | 20,4 - 26,1 | 217,4 | 517 |
| 11012578 | 11012714 | 20 x 2 x 0,5 | 20 | 22,8 - 29,3 | 270,5 | 621 |
| 11012579 | 11012715 | 24 x 2 x 0,5 | 20 | 25,5 - 32,7 | 323,6 | 734 |
| 11012580 | 11012716 | 30 x 2 x 0,5 | 20 | 26,9 - 34,7 | 403,2 | 895 |
| 11012581 | 11012717 | 36 x 2 x 0,5 | 20 | 29,3 - 37,7 | 482,9 | 1074 |
| 11012582 | 11012718 | 2 x 3 x 0,5 | 20 | 10,8 - 13,7 | 42,0 | 132 |
| 11012583 | 11012719 | 3 x 3 x 0,5 | 20 | 11,4 - 14,6 | 60,5 | 170 |
| 11012589 | 11012725 | 2 x 4 x 0,5 | 20 | 12,3 - 15,6 | 52,4 | 167 |
| 11012590 | 11012726 | 3 x 4 x 0,5 | 20 | 13,2 - 16,9 | 76,0 | 207 |

Continuation ►

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Instrumentation cable, XLPE/IS/OS/PVC

| 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 |
|---------------------------------|---------------------|---------------------------------|---------|------------------------------|--------------------------|------------------------|
| 11012596 | 11012732 | 2 x 2 x 0,75 | 19 | 10,4 - 12,7 | 42,0 | 125 |
| 11012597 | 11012733 | 4 x 2 x 0,75 | 19 | 12,1 - 14,9 | 78,9 | 196 |
| 11012598 | 11012734 | 5 x 2 x 0,75 | 19 | 13,4 - 16,5 | 97,3 | 236 |
| 11012599 | 11012735 | 6 x 2 x 0,75 | 19 | 14,6 - 18,0 | 115,8 | 289 |
| 11012600 | 11012736 | 8 x 2 x 0,75 | 19 | 16,6 - 20,3 | 152,7 | 347 |
| 11012601 | 11012737 | 10 x 2 x 0,75 | 19 | 18,9 - 23,3 | 189,6 | 399 |
| 11012602 | 11012738 | 12 x 2 x 0,75 | 19 | 19,6 - 24,1 | 226,6 | 468 |
| 11012603 | 11012739 | 15 x 2 x 0,75 | 19 | 21,9 - 27,0 | 281,9 | 602 |
| 11012604 | 11012740 | 16 x 2 x 0,75 | 19 | 21,9 - 27,0 | 300,3 | 626 |
| 11012605 | 11012741 | 20 x 2 x 0,75 | 19 | 24,6 - 30,3 | 374,2 | 752 |
| 11012606 | 11012742 | 24 x 2 x 0,75 | 19 | 27,4 - 33,8 | 448,0 | 889 |
| 11012607 | 11012743 | 30 x 2 x 0,75 | 19 | 29,3 - 36,1 | 558,7 | 1087 |
| 11012608 | 11012744 | 36 x 2 x 0,75 | 19 | 31,8 - 39,3 | 669,5 | 1304 |
| 11012609 | 11012745 | 2 x 3 x 0,75 | 19 | 11,5 - 14,1 | 57,6 | 160 |
| 11012610 | 11012746 | 3 x 3 x 0,75 | 19 | 12,2 - 15,0 | 83,8 | 200 |
| 11012616 | 11012752 | 2 x 4 x 0,75 | 19 | 13,3 - 16,4 | 73,1 | 194 |
| 11012617 | 11012753 | 3 x 4 x 0,75 | 19 | 14,2 - 17,4 | 107,1 | 253 |
| 11012623 | 11012759 | 2 x 2 x 1 | 18 | 10,8 - 13,6 | 52,4 | 140 |
| 11012624 | 11012760 | 4 x 2 x 1 | 18 | 12,7 - 15,9 | 99,7 | 223 |
| 11012625 | 11012761 | 5 x 2 x 1 | 18 | 13,9 - 17,4 | 123,2 | 279 |
| 11012626 | 11012762 | 6 x 2 x 1 | 18 | 15,3 - 19,3 | 146,9 | 332 |
| 11012627 | 11012763 | 8 x 2 x 1 | 18 | 17,1 - 21,7 | 194,2 | 399 |
| 11012628 | 11012764 | 10 x 2 x 1 | 18 | 19,6 - 24,8 | 241,5 | 471 |
| 11012629 | 11012765 | 12 x 2 x 1 | 18 | 20,5 - 25,9 | 288,8 | 555 |
| 11012630 | 11012766 | 15 x 2 x 1 | 18 | 22,9 - 29,0 | 359,6 | 699 |
| 11012631 | 11012767 | 16 x 2 x 1 | 18 | 22,9 - 29,0 | 383,3 | 729 |
| 11012632 | 11012768 | 20 x 2 x 1 | 18 | 25,7 - 32,5 | 477,9 | 878 |
| 11012633 | 11012769 | 24 x 2 x 1 | 18 | 28,6 - 36,4 | 572,4 | 1057 |
| 11012634 | 11012770 | 30 x 2 x 1 | 18 | 30,5 - 38,7 | 714,2 | 1292 |
| 11012635 | 11012771 | 36 x 2 x 1 | 18 | 33,1 - 42,1 | 856,1 | 1552 |
| 11012636 | 11012772 | 2 x 3 x 1 | 18 | 11,9 - 15,0 | 73,1 | 182 |
| 11012637 | 11012773 | 3 x 3 x 1 | 18 | 12,8 - 16,2 | 107,1 | 230 |
| 11012643 | 11012779 | 2 x 4 x 1 | 18 | 13,8 - 17,4 | 93,9 | 230 |
| 11012644 | 11012780 | 3 x 4 x 1 | 18 | 14,7 - 18,6 | 138,2 | 292 |
| 11012651 | 11012787 | 2 x 2 x 1,5 | 16 | 12,1 - 14,7 | 73,1 | 177 |
| 11012652 | 11012788 | 4 x 2 x 1,5 | 16 | 14,3 - 17,3 | 141,2 | 287 |
| 11012653 | 11012789 | 5 x 2 x 1,5 | 16 | 15,8 - 19,3 | 175,1 | 358 |
| 11012654 | 11012790 | 6 x 2 x 1,5 | 16 | 17,3 - 21,0 | 209,1 | 427 |
| 11012655 | 11012791 | 8 x 2 x 1,5 | 16 | 19,6 - 23,9 | 277,1 | 518 |
| 11012656 | 11012792 | 10 x 2 x 1,5 | 16 | 22,4 - 27,3 | 345,2 | 613 |
| 11012657 | 11012793 | 12 x 2 x 1,5 | 16 | 23,4 - 28,5 | 413,2 | 724 |
| 11012658 | 11012794 | 15 x 2 x 1,5 | 16 | 26,2 - 31,9 | 515,2 | 912 |
| 11012659 | 11012795 | 16 x 2 x 1,5 | 16 | 26,2 - 31,9 | 549,2 | 952 |
| 11012660 | 11012796 | 20 x 2 x 1,5 | 16 | 29,4 - 35,8 | 685,3 | 1167 |
| 11012661 | 11012797 | 24 x 2 x 1,5 | 16 | 33,0 - 40,2 | 821,2 | 1383 |
| 11012662 | 11012798 | 30 x 2 x 1,5 | 16 | 34,9 - 42,6 | 1025,2 | 1697 |
| 11012663 | 11012799 | 36 x 2 x 1,5 | 16 | 38,1 - 46,5 | 1229,4 | 2063 |
| 11012664 | 11012800 | 2 x 3 x 1,5 | 16 | 13,6 - 16,5 | 104,2 | 223 |
| 11012665 | 11012801 | 3 x 3 x 1,5 | 16 | 14,5 - 17,5 | 153,8 | 297 |
| 11012671 | 11012807 | 2 x 4 x 1,5 | 16 | 15,8 - 19,2 | 135,3 | 295 |
| 11012672 | 11012808 | 3 x 4 x 1,5 | 16 | 16,8 - 20,4 | 200,4 | 380 |
| 11012678 | 11012814 | 2 x 2 x 2,5 | 14 | 13,9 - 17,5 | 114,6 | 245 |
| 11012679 | 11012815 | 4 x 2 x 2,5 | 14 | 16,5 - 20,9 | 224,1 | 405 |
| 11012680 | 11012816 | 5 x 2 x 2,5 | 14 | 18,2 - 23,0 | 278,7 | 508 |
| 11012681 | 11012817 | 6 x 2 x 2,5 | 14 | 19,9 - 25,3 | 333,5 | 622 |
| 11012682 | 11012818 | 8 x 2 x 2,5 | 14 | 22,8 - 28,9 | 443,0 | 756 |
| 11012683 | 11012819 | 10 x 2 x 2,5 | 14 | 26,1 - 33,1 | 552,5 | 893 |
| 11012684 | 11012820 | 12 x 2 x 2,5 | 14 | 27,0 - 34,2 | 662,0 | 1055 |
| 11012685 | 11012821 | 15 x 2 x 2,5 | 14 | 30,4 - 38,6 | 826,2 | 1348 |
| 11012686 | 11012822 | 16 x 2 x 2,5 | 14 | 30,4 - 38,6 | 881,0 | 1410 |
| 11012687 | 11012823 | 20 x 2 x 2,5 | 14 | 34,2 - 43,3 | 1100,0 | 1722 |
| 11012688 | 11012824 | 24 x 2 x 2,5 | 14 | 38,3 - 48,6 | 1318,9 | 2043 |
| 11012689 | 11012825 | 30 x 2 x 2,5 | 14 | 40,8 - 51,8 | 1647,3 | 2533 |
| 11012690 | 11012826 | 36 x 2 x 2,5 | 14 | 44,3 - 56,3 | 1975,9 | 3072 |
| 11012691 | 11012827 | 2 x 3 x 2,5 | 14 | 15,7 - 19,8 | 166,4 | 325 |
| 11012692 | 11012828 | 3 x 3 x 2,5 | 14 | 16,7 - 21,1 | 247,1 | 425 |
| 11012698 | 11012834 | 2 x 4 x 2,5 | 14 | 18,2 - 23,0 | 218,3 | 415 |
| 11012699 | 11012835 | 3 x 4 x 2,5 | 14 | 19,4 - 24,6 | 324,9 | 557 |

Dimensions and specifications may be changed without prior notice.