

# HELUDATA® EN-50288-7 FIRE RES IOS 500

Instrumentation cable, fire resistant, halogen-free, XLPE/IS/OS/LS0H



HELUDATA® EN-50288-7 FIRE RES IOS 500 €€

## Technical data

- Instrumentation cable acc. to DIN EN 50288-7
- **Temperature range**  
flexing -10°C to +90°C  
fixed installation -30°C to +90°C
- **Nominal voltage**  
 $U_{AC}$  500 V
- **Test voltage**  
2000 V
- **Minimum bending radius**  
fixed 7,5 x cable Ø
- **Insulation resistance**  
> 5000 MΩxkm
- **Mutual capacitance**  
cable element: < 100 pF/m
- **Inductance**  
max. 1 mH/km
- **L/R (ratio)**  
< 40 μH/Ω

## Cable structure

- Bare copper conductor, multiple wired acc. to DIN VDE 0295 cl. 2 / IEC 60228 cl. 2
- Fire barrier: MICA tape
- Core insulation: XLPE acc. to EN 50290-2-29
- Cores stranded in pairs or triads
- Cores twisted together in cable elements in optimal lay length
- Core identification  
pairs: BU, BK  
triads: BU, BK, RD  
blue cores with continuous black numbering
- Individually 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/PET tape over tinned copper stranded drain wire (7x0,3 mm)
- Outer sheath: LS0H compound acc. to EN 50290-2-27
- Outer sheath colour: orange (RAL 2004)
- With meter marking

## Properties

- Low level of line attenuations and low mutual capacitances enable long transmission distances
- Cable elements have to be produced out of non-hygroscopic materials
- Resistant to hydrocarbons

## Tests

- Fire resistant acc. to IEC 60331-21
- Flame retardant acc. to DIN VDE 482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- Flame test on bunched wires acc. to DIN VDE 0482-332-3-24 / DIN EN 60332-3-24 / IEC 60332-3-24 (Cat. C)
- Flame test on bunched wires acc. to DIN VDE 0482-332-3-22 / DIN EN 60332-3-22 / IEC 60332-3-22 (Cat. A)
- 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 / DIN EN 61034-1 / IEC 61034-1
- Halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- Oil resistant acc. to IEC 60811-532 / NEMA WC 57 / IEC 60811-404
- UV and sunlight resistant acc. to ISO 4892-3 & UL 1581 sect. 1200
- Suitable for usage in explosive atmospheres acc. to IEC 60079-14 sec. 16.2.2

## Note

- The conductor is metrically constructed (mm<sup>2</sup>). The AWG designation is approximate and purely informative.
- Not suitable for direct burial
- Version suitable for installation on ships acc. to IEC 60092-350 on request

## 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. In the case of fire, the cable maintains circuit integrity for min. 180 minutes.

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

| Part no. | No.pairs x cross-sec. mm <sup>2</sup> | AWG-No. | Outer Ø min. - max. mm | Copper weight kg / km | Weight app. kg / km |
|----------|---------------------------------------|---------|------------------------|-----------------------|---------------------|
| 11016566 | 2 x 2 x 1,5                           | 16      | 14,9 - 18,0            | 73,1                  | 206                 |
| 11016567 | 4 x 2 x 1,5                           | 16      | 17,9 - 21,5            | 141,2                 | 340                 |
| 11016568 | 6 x 2 x 1,5                           | 16      | 21,6 - 26,0            | 209,1                 | 534                 |
| 11016569 | 8 x 2 x 1,5                           | 16      | 24,5 - 29,5            | 277,1                 | 669                 |
| 11016570 | 10 x 2 x 1,5                          | 16      | 28,3 - 34,0            | 345,2                 | 798                 |

| Part no. | No.pairs x cross-sec. mm <sup>2</sup> | AWG-No. | Outer Ø min. - max. mm | Copper weight kg / km | Weight app. kg / km |
|----------|---------------------------------------|---------|------------------------|-----------------------|---------------------|
| 11016571 | 12 x 2 x 1,5                          | 16      | 29,3 - 35,2            | 413,2                 | 918                 |
| 11016573 | 2 x 3 x 1,5                           | 16      | 16,8 - 20,2            | 104,2                 | 272                 |
| 11016579 | 4 x 3 x 1,5                           | 16      | 19,9 - 24,0            | 188,4                 | 459                 |

Dimensions and specifications may be changed without prior notice.