EN 50288-7 Hypron® XLPE Insulation IOS Unarmoured Fire Retardant

- Instrumentation cables 170/300 V
- Individual & Overall Screen (IOS)
- Lead free
- **Aliphatic and aromatic hydrocarbons resistant**

STANDARDS

Test IEC 60332-3-22 Cat.A

APPLICATIONS

These instrumentation and communication cable are used to **transmit analogue or digital signals in measurement and process control in moist areas and where aliphatic and aromatic hydrocarbons may be present. The individual screening of each pair limits the consequence of crosstalk. Hypron® offers an alternative to conventional lead covered cable and is an environmental friendly solution.**

Design

Conductor:

Stranded bare copper class 2

Insulation:

Cross-linked polyethylene (XLPE)

Individual screen:

Binder tape

Tinned copper drain wire

Aluminium backed polyester tape

Binder tape

Binder tape

Bedding

Inner sheath:

Polyvinyl chloride (PVC)

Colour: black

Overall screen/sealing barrier:

Tinned copper drain wire

Aluminium backed polyethylene tape

Bedding:

High density polyethylene (PE)

Colour: black

Special sheath(intermediate sheath):

Polyamide

Outer sheath:

Polyvinyl chloride (PVC)

Colour: black

Other colour on request

Lead free
Yes


Rated Voltage Uo/U (Um)
170/300V


Flame test
EN IEC 60332-3-22 (cat A)


Chemical resistance
Aliphatic and aromatic hydrocarbons resistant


Electro magnetic interference resistance
Yes


Operating temp.
-20 ... 60 °C


Max.conductor temp.in service
90 °C

CONTACT

Market information
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EN 50288-7 Hypron® XLPE Insulation IOS Unarmoured Fire Retardant

CHARACTERISTICS

Construction characteristics	
Conductor material	Bare copper
Type of conductor	Stranded, class 2
Insulation	XLPE (Cross-linked Polyethylene)
Individual screen	Tinned copper drain wire + aluminium/polyester tape
Inner sheath	PVC
Overall screen	Tinned copper drain wire + aluminium/polyethylene tape
Material of bedding	High-density polyethylene (PE)
Intermediate sheath	Polyamide
Outer sheath	PVC
Lead free	Yes
Protection	no
Electrical characteristics	
Rated Voltage Uo/U (Um)	170/300V
Usage characteristics	
Fire retardant	EN IEC 60332-3-22 (cat A)
Chemical resistance	Aliphatic and aromatic hydrocarbons resistant
Electro magnetic interference resistance	Yes
Operating temperature, range	-20 ... 60 °C
Max. conductor temperature in service	90 °C
Standard	EN

SECTION 0.5MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
2	0.9	1.38	7.9	11.3	16.8	18.5	306
5	0.9	1.38	10.2	13.5	18.9	20.9	411
10	0.9	1.38	13.1	16.6	21.9	24.2	571
20	0.9	1.38	16.9	20.6	25.8	28.5	836
30	0.9	1.38	20.1	23.8	28.9	31.9	1092

Lead free
Yes


Rated Voltage Uo/U (Um)
170/300V


Fire retardant
EN IEC 60332-3-22 (cat A)


Chemical resistance
Aliphatic and aromatic hydrocarbons resistant


Electro magnetic interference resistance
Yes


Operating temp.
-20 ... 60 °C


Max.conductor temp.in service
90 °C

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SECTION 0.75MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Min. outer diam. [mm]	Approx. weight [kg/km]	Max. outer diam. [mm]
2	1.1	1.58	8.6	12	17.5	336	19.3
5	1.1	1.58	11.2	14.5	19.9	469	21.9
10	1.1	1.58	14.6	18.1	23.4	671	25.8
20	1.1	1.58	18.8	22.5	27.6	1006	30.5
30	1.1	1.58	22.5	26.2	31.2	1332	34.5

SECTION 1.0MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
2	1.28	1.76	9.3	12.7	18.1	20.0	364
5	1.28	1.76	12.1	15.4	20.8	22.9	514
10	1.28	1.76	15.7	19.2	24.4	27.0	749
20	1.28	1.76	20.5	24.2	29.3	32.3	1147
30	1.28	1.76	24.6	28.3	33.3	36.7	1540

SECTION 1.5MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
2	1.5	2.16	10.7	14.1	19.5	21.5	421
5	1.5	2.16	14	17.3	22.6	24.9	622
10	1.5	2.16	18.5	22	27.2	30.0	943
20	1.5	2.16	24.3	28	33.0	36.4	1484
30	1.5	2.16	29.2	32.9	37.7	41.6	2025

SECTION 2.5MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
2	1.91	2.57	12.2	15.6	21.0	23.1	505
5	1.91	2.57	16.1	19.4	24.6	27.2	761
10	1.91	2.57	21.5	25	30.1	33.2	1193

Lead free
Yes

Rated Voltage Uo/U (Um)
170/300V

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Aliphatic and aromatic hydrocarbons resistant

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
90 °C

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nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
20	1.91	2.57	28.2	31.9	36.8	40.6	1927
30	1.91	2.57	34	37.7	42.4	46.8	2679

SELLING AND DELIVERY INFORMATION

Other fire performances IEC 60332-1 or IEC 60332-3-24(C) on request.

Minimum bending radius:

15 x outer diameter
To be doubled during laying operations

Tinned copper conductors available on request

Lead free
Yes

Rated Voltage Uo/U (Um)
170/300V

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Aliphatic and aromatic hydrocarbons resistant

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
90 °C