EN 50288-7 Hypron® XLPE Insulation OS Armoured Fire Retardant

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

STANDARDS

Test IEC 60332-3-22 Cat.A

APPLICATIONS

These instrumentation and communication cables 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**. They are well adapted to **underground use in industrial applications where chemical and mechanical protections are needed (refinery areas, chemical plant...). Hypron® offers an alternative to conventional lead sheathed cable and is an environmental friendly solution.**.

Design

Conductor:

Stranded bare copper class 2

Insulation:

Cross-linked polyethylene (XLPE)

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

Armour:

Galvanized steel wires (SWA)

Outer sheath:

Polyvinyl chloride (PVC)

Colour: black

Other colour on request

Core identification

Pair: white - black

CONTACT

Market information
industryprojects.business@lynxeogroup.com

Lead free
Yes

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

Mechanical resistance to impacts
Good

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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CHARACTERISTICS

Construction characteristics	
Conductor material	Bare copper
Type of conductor	Stranded, class 2
Insulation	XLPE (Cross-linked Polyethylene)
Inner sheath	PVC
Overall screen	Tinned copper drain wire + aluminium/polyethylene tape
Material of bedding	High-density polyethylene (PE)
Intermediate sheath	Polyamide
Armour type	Galvanized steel wires
Outer sheath	PVC
Lead free	Yes
Protection	Yes
Electrical characteristics	
Rated Voltage Uo/U (Um)	170/300V
Mechanical characteristics	
Mechanical resistance to impacts	Good
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

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	1	0.9	1.38	6	9.2	11.0	16.5	18.2	467
	2	0.9	1.38	6	9.2	11.0	16.5	18.2	473
10187666	5	0.9	1.38	9.4	12.8	14.6	20.0	22.0	613
10164894	10	0.9	1.38	12.1	15.7	17.5	22.8	25.1	786
	20	0.9	1.38	15.6	19.3	21.8	27.0	29.7	1182
	30	0.9	1.38	18.6	22.3	24.8	29.9	33.0	1433

Lead free
Yes


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


Mechanical resistance to impacts
Good


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

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	1	1.1	1.58	6	9.2	11.0	16.5	18.2	472
	2	1.1	1.58	6.3	9.5	11.3	16.8	18.5	497
10187674	5	1.1	1.58	10.4	13.8	15.6	21.0	23.1	687
10187677	10	1.1	1.58	13.5	17	19.5	24.7	27.3	1031
	20	1.1	1.58	17.5	21.2	23.7	28.8	31.8	1387
	30	1.1	1.58	20.9	24.6	27.1	32.1	35.4	1731

SECTION 1.0MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	1	1.28	1.76	6	9.2	11.0	16.5	18.2	475
	2	1.28	1.76	6.8	10	11.8	17.2	19.0	530
10187683	5	1.28	1.76	11.3	14.7	16.5	21.8	24.1	742
10187686	10	1.28	1.76	14.8	18.4	20.9	26.1	28.8	1137
	20	1.28	1.76	19.2	23	25.5	30.6	33.7	1564
	30	1.28	1.76	23	26.7	29.2	34.1	37.7	1959

SECTION 1.5MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	1	1.5	2.16	6.8	10	11.8	17.3	19.0	529
	2	1.5	2.16	7.7	10.9	12.7	18.1	20.0	597
10187691	5	1.5	2.16	13.3	16.6	19.1	24.3	26.9	1012
10187694	10	1.5	2.16	17.6	21.2	23.7	28.8	31.8	1402
	20	1.5	2.16	23	26.7	29.2	34.1	37.7	2168
	30	1.5	2.16	27.6	31.3	34.5	39.3	43.3	2783

Lead free
Yes


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


Mechanical resistance to impacts
Good


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 2.5MM²

Reference	nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. intermediate sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
10187699	1	1.91	2.57	7.6	10.8	12.6	18.0	19.9	585
10187700	2	1.91	2.57	11.7	15.1	16.9	22.2	24.5	769
10187703	5	1.91	2.57	15.4	18.7	21.2	26.4	29.1	1196
10187707	10	1.91	2.57	20.4	23.9	26.4	31.4	34.7	1702
10187712	20	1.91	2.57	26.9	30.6	33.8	38.6	42.6	2732
	30	1.91	2.57	32.4	36.1	39.3	43.9	48.5	3564

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


Mechanical resistance to impacts
Good


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