EN 50288-7 XLPE Insulation OS Armoured Fire Retardant

- Instrumentation cables 170/300 V
- Overall Screen (OS)
- **Oil 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** .They are well adapted to **underground use in industrial application where chemical and mechanical protections are needed (refinery areas, chemical plan…)** .

Design

Conductor:

Stranded bare copper class 2

Insulation:

Cross-linked polyethylene (XLPE)

Overall screen:

Polyester tape

Tinned copper drain wire,

Aluminium backed polyester tape

Inner sheath:

Polyvinyl chloride (PVC).

Colour : black

Armour:

Galvanized steel wires (SWA)

Outer sheath:

Polyvinyl chloride (PVC).

Colour: black.

Other colour on request.

Core identification

Pair: white - black
Quad: white - black - red - blue (2 pair cables assembled as a quad)
White core printed with pair number

Marking

NEXANS 279 XLPE/OA.SCR/PVC/SWA/PVC 170/300V Nber of pairs & cross-section Cu IEC 60332-3-22(A) MM YYYY Manufacturing number + metric marking

Rated Voltage Uo/U (Um)	Mechanical resistance to impacts	Fire retardant	Oil resistance	Electro magnetic interference resistance	Operating temp.	Max.conductor temp.in service
170/300V	**Good**	**EN IEC 60332-3-22 (cat A)**	**Yes**	**Yes**	**-20 ; 60 °C**	**90 °C**

Standards

EN 50288-7 (design guide lines)

CONTACT

Market information
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EN 50288-7 XLPE Insulation OS Armoured Fire Retardant

CHARACTERISTICS

Construction characteristics	
Conductor material	Bare copper
Type of conductor	Stranded, class 2
Insulation	XLPE (Cross-linked Polyethylene)
Overall screen	Tinned copper drain wire + aluminium/polyester tape
Inner sheath	PVC
Armour type	Galvanized steel wires
Outer sheath	PVC
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)
Oil resistance	Yes
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. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1	0.9	1.38	5	6.8	9.1	10.0	172
2	0.9	1.38	5.6	7.4	9.7	10.6	198
5	0.9	1.38	9.1	10.9	13.3	14.6	328
10	0.9	1.38	11.8	13.6	15.9	17.5	453
20	0.9	1.38	15.4	17.2	19.6	21.6	661
30	0.9	1.38	18.3	20.8	23.3	25.7	994

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

Mechanical resistance to impacts
Good

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

Oil resistance
Yes

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
90 °C

EN 50288-7 XLPE Insulation OS Armoured Fire Retardant

SECTION 0.75MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1	1.1	1.58	5.4	7.2	9.5	10.5	194
2	1.1	1.58	6	7.8	10.1	11.2	227
5	1.1	1.58	10.1	11.9	14.3	15.7	384
10	1.1	1.58	13.2	15.0	17.5	19.3	562
20	1.1	1.58	17.2	19.7	22.2	24.5	961
30	1.1	1.58	20.7	23.2	25.8	28.5	1280

SECTION 1.0MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1	1.28	1.76	5.7	7.5	9.8	10.8	208
2	1.28	1.76	6.5	8.3	10.5	11.6	251
5	1.28	1.76	11	12.8	15.1	16.7	431
10	1.28	1.76	14.5	16.3	18.7	20.7	645
20	1.28	1.76	19	21.5	24.0	26.4	1117
30	1.28	1.76	22.8	25.3	27.8	30.7	1480

SECTION 1.5MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1	1.5	2.16	6.5	8.3	10.6	11.7	246
2	1.5	2.16	7.4	9.2	11.5	12.6	302
5	1.5	2.16	13	14.8	17.3	19.0	556
10	1.5	2.16	17.3	19.8	22.3	24.6	979
20	1.5	2.16	22.7	25.2	27.7	30.6	1500
30	1.5	2.16	27.7	30.2	33.0	36.4	2262

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

Mechanical resistance to impacts
Good

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

Oil resistance
Yes

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
90 °C

EN 50288-7 XLPE Insulation OS Armoured Fire Retardant

SECTION 2.5MM²

nb pairs	Conductor diam. [mm]	Diam. over insulation [mm]	Diam. over inner sheath [mm]	Diam. over armour [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
1	1.91	2.57	7.3	9.1	11.4	12.6	293
2	1.91	2.57	8.4	10.2	12.6	13.9	373
5	1.91	2.57	15.1	16.9	19.3	21.3	706
10	1.91	2.57	20.1	22.6	25.2	27.8	1269
20	1.91	2.57	26.6	29.1	31.7	35.0	1997
30	1.91	2.57	32.5	35.7	38.5	42.5	3022

SELLING AND DELIVERY INFORMATION

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

Minimum bending radius:

10 x outer diameter
To be doubled during laying operations

Tinned copper conductors available on request


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


Mechanical resistance to impacts
Good


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


Oil resistance
Yes


Electro magnetic interference resistance
Yes


Operating temp.
-20 ... 60 °C


Max.conductor temp.in service
90 °C