



- Instrumentation cables 170/300 V
- Individual & Overall Screen (IOS)
- **Oil resistant**

STANDARDS

Test IEC 60332-3-22 Cat.A

APPLICATIONS

These Instrumentation and communication are used to **transmit analogue or digital signals in measurement and process control** They are well adapted to **underground use in industrial applications where chemical and mechanical protections are needed (refinery areas, chemical plant...)**. The individual screening of each pair limits the consequence of crosstalk.

Design

Conductor:

Stranded bare copper class 2

Insulation:

Cross-linked polyethylene (XLPE)

Individual screen:

Polyester tape

Tinned copper drain wire

Aluminium backed polyester tape

Polyester tape

Overall screen:

Polyester tape

Tinned copper drain wire

Aluminium backed polyester tape

Inner sheath:

Polyvinyl chloride (PVC)

Armour:

Galvanized steel wires (SWA)

Outer sheath:

Polyvinyl chloride (PVC)

Colour: black

Other colour on request

Fire retardant
EN IEC 60332-3-22
Yes

Oil resistance
Yes



Electro magnetic
interference resistance
Yes



Operating temp.
-20 ... 60 °C



Max. conductor temp.in
service
90 °C



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



Mechanical resistance
to impacts
Good

Core identification

Pair: white - black
White core printed with pair number

CONTACT

Market information
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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
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 U ₀ /U (U _m)	170/300V
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Mechanical characteristics

Mechanical resistance to impacts	Good
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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]
2	0.9	1.38	7.6	9.4	11.7	12.9	261
5	0.9	1.38	9.8	11.6	13.9	15.4	380
10	0.9	1.38	12.7	14.5	16.8	18.5	547
20	0.9	1.38	16.7	18.5	20.9	23.0	836
30	0.9	1.38	19.8	22.3	24.7	27.3	1261



Rated Voltage U₀/U (U_m)
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

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]
2	1.1	1.58	8.3	10.1	12.4	13.6	291
5	1.1	1.58	10.8	12.6	14.9	16.5	444
10	1.1	1.58	14.2	16.0	18.4	20.3	664
20	1.1	1.58	18.5	21.0	23.5	25.9	1147
30	1.1	1.58	22.3	24.8	27.4	30.2	1551

SECTION 1MM²

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]
2	1.28	1.76	9	10.8	13.2	14.5	323
5	1.28	1.76	11.7	13.5	15.8	17.4	493
10	1.28	1.76	15.4	17.2	19.6	21.6	750
20	1.28	1.76	20.3	22.8	25.2	27.8	1322
30	1.28	1.76	24.4	26.9	29.4	32.4	1779

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]
2	1.5	2.16	10.4	12.2	14.6	16.1	388
5	1.5	2.16	13.7	15.5	17.9	19.8	623
10	1.5	2.16	18.2	20.7	23.2	25.6	1099
20	1.5	2.16	24	26.5	29.0	32.0	1705
30	1.5	2.16	29.3	31.8	34.5	38.1	2590

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]
2	1.91	2.57	11.9	13.7	16.0	17.7	484
5	1.91	2.57	15.8	17.6	20.0	22.0	771
10	1.91	2.57	21.1	23.6	26.2	28.9	1391



Rated Voltage U₀/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

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]
20	1.91	2.57	28.3	30.8	33.6	37.0	2272
30	1.91	2.57	34.1	37.3	40.1	44.2	3358

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 U_0/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