



CONTACT

Market information
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- Instrumentation cables 300/500 V
- XLPE insulation (Part 1)
- Unarmoured (Type 1)
- Individual & Overall Screen (IOS)
- **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 where chemicals may be present. The individual screening of each pair limits the consequence of crosstalk..**

Design

Conductor:

Solid, stranded or flexible bare copper

Insulation:

Cross-linked polyethylene (XLPE)

Individual screen:

Binder tape

Tinned copper drain wire,

Aluminium/polyester tape

Binder tape

Overall screen:

Binder tape

Tinned copper drain wire,

Aluminium/polyester tape

Outer sheath:

Polyvinyl chloride (PVC)

Colour: black

Other colour on request.

Core identification

Pair: black – white

White core printed with pair number

On request: according to PAS 5308 part 1



Rated Voltage U₀/U (Um)
300/500 V



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



Marking
 Yes



Electro magnetic interference
 resistance
 Yes



Operating temp.
 -20 ... 60 °C



Max. conductor temp.in
 service
 90 °C

NEXANS 279 XLPE/IND.+OA.SCR/PVC 300/500V Nber of pairs & cross-section Cu IEC 60332-3-22(A) MM YYYY Manufacturing number + metric marking

Standards

All drawings, designs, specifications, plans and particulars of weights, size and dimensions
 PAS 5308 Part 1/Type 1 (Design guidelines)
 EN IEC 60332-3-22
 BS EN 50290-2-29
 BS EN 50290-2-29

CHARACTERISTICS

Construction characteristics

| | |
|--------------------|---|
| Conductor material | Bare copper |
| Insulation | XLPE (Cross-linked Polyethylene) |
| Individual screen | Tinned copper drain wire + aluminium/polyester tape |
| Overall screen | Tinned copper drain wire + aluminium/polyester tape |
| Outer sheath | PVC |
| Protection | no |

Electrical characteristics

| | |
|---|-----------|
| Rated Voltage U _o /U (U _m) | 300/500 V |
|---|-----------|

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 | PAS |

CLASS 1 0.5 MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|----------|----------------------|----------------------------|-----------------------|-----------------------|------------------------|
| 2 | 0.8 | 1.8 | 10.2 | 11.5 | 121 |
| 5 | 0.8 | 1.8 | 13.0 | 14.4 | 210 |
| 10 | 0.8 | 1.8 | 16.8 | 18.5 | 390 |
| 20 | 0.8 | 1.8 | 21.6 | 23.9 | 684 |
| 30 | 0.8 | 1.8 | 25.6 | 28.2 | 985 |

CLASS 5 0.5 MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|----------|----------------------|----------------------------|-----------------------|-----------------------|------------------------|
| 2 | 0.9 | 2.1 | 11.3 | 12.6 | 133 |
| 5 | 0.9 | 2.1 | 14.5 | 16.1 | 232 |
| 10 | 0.9 | 2.1 | 18.8 | 20.8 | 462 |
| 20 | 0.9 | 2.1 | 24.3 | 26.9 | 812 |
| 30 | 0.9 | 2.1 | 29.0 | 32.0 | 1174 |



Rated Voltage U_o/U (U_m)
300/500 V



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

CLASS 2 0.75 MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|----------|----------------------|----------------------------|-----------------------|-----------------------|------------------------|
| 2 | 1.1 | 2.3 | 12.0 | 13.4 | 154 |
| 5 | 1.1 | 2.3 | 15.5 | 17.1 | 276 |
| 10 | 1.1 | 2.3 | 20.2 | 22.3 | 569 |
| 20 | 1.1 | 2.3 | 26.2 | 28.9 | 1013 |
| 30 | 1.1 | 2.3 | 31.2 | 34.5 | 1473 |

CLASS 1 1 MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|----------|----------------------|----------------------------|-----------------------|-----------------------|------------------------|
| 2 | 1.14 | 2.34 | 12.2 | 13.6 | 164 |
| 5 | 1.14 | 2.34 | 15.7 | 17.3 | 298 |
| 10 | 1.14 | 2.34 | 20.5 | 22.6 | 612 |
| 20 | 1.14 | 2.34 | 26.6 | 29.3 | 1098 |
| 30 | 1.14 | 2.34 | 31.8 | 35.1 | 1606 |

CLASS 2 1.5 MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|----------|----------------------|----------------------------|-----------------------|-----------------------|------------------------|
| 2 | 1.5 | 2.7 | 13.5 | 15.0 | 197 |
| 5 | 1.5 | 2.7 | 17.5 | 19.3 | 377 |
| 10 | 1.5 | 2.7 | 23.0 | 25.4 | 786 |
| 20 | 1.5 | 2.7 | 29.9 | 33.0 | 1415 |

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 U₀/U (Um)
300/500 V



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