



### CONTACT

Market information  
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- Instrumentation cables 250 V
- Overall Screen (OS)
- **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**. They are well adapted to **underground use in industrial applications where hydrocarbons may be present and mechanical protection is needed (refinery areas, chemical plant...)**.

### Nexans code

- 1st serie = number of pairs, triples or quads: 01 to 27 - 2nd serie = pair (IP), triple (IT), quad (IQ)
- 3rd serie = conductor 05 (1 x 0.8 mm), 09 (7 x 0.4 mm) or 15 (7 x 0.52 mm)
- 4th serie = overall screen (EG), individual screen + overall screen (EI)
- 5th serie = mechanical protection: without metal tape (SF), with steel tape (FA), with lead and steel tape (PF)

### Design

#### Conductor:

- Solid plain copper 0.50 mm<sup>2</sup> (1 x 0.80 mm) or stranded plain copper cross-section 0.88 mm<sup>2</sup> (7 x 0.40 mm) or 1.5 mm<sup>2</sup> (7 x 0.52 mm)

#### Insulation:

- Polyvinyl chloride (PVC)

#### Collective screen:

- Polyester tape
- Tinned copper drain wire
- Aluminium/polyester tape

#### Inner sheath:

- Polyvinyl chloride (PVC)

#### Armour:

- Double steel tape

#### Outer sheath:

- Polyvinyl chloride (PVC)
- Colour: light-blue or grey

### Core identification

Pair: natural - red  
Triple: natural - red - blue  
Quad: natural - red - blue - yellow  
Natural cores printed with pair/triple number

### Marking

NEXANS 279 - Number of pair/triple/quad IP/IT/IQ 05/09/15 EG FA IEC 60332-3-22(A) + metric marking



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



Chemical resistance  
Hydrocarbons resistant



Electro magnetic interference resistance  
Yes



Operating temp.  
-20 ... 60 °C



Max. conductor temp. in service  
70 °C

## CHARACTERISTICS

### Construction characteristics

|                    |   |
|--------------------|---|
| Conductor material | Plain copper  |
| Insulation         | PVC   |
| Overall screen     | Tinned copper drain wire + aluminium/polyester tape |
| Outer sheath       | PVC   |
| Armour type        | Steel tapes   |
| Inner sheath       | PVC   |

### Dimensional characteristics

|                            |                     |
|----------------------------|---------------------|
| Conductor cross-section    | 1.5 mm <sup>2</sup> |
| Number of pairs            | 1                   |
| Number of triples          | -                   |
| Number of quads            | -                   |
| Conductor diameter         | 1.55 mm             |
| Diameter over insulation   | 2.55 mm             |
| Minimum outer diameter     | 9.8 mm              |
| Maximum outer diameter     | 11.0 mm             |
| Approximate weight         | 190 kg/km           |
| Diameter over armour       | 8.3 mm              |
| Diameter over inner sheath | 7.3 mm              |

### Electrical characteristics

|                   |       |
|-------------------|-------|
| Operating voltage | 250 V |
|-------------------|-------|

### Usage characteristics

|  |                           |
|--|---------------------------|
| Fire retardant                           | EN IEC 60332-3-22 (cat A) |
| Chemical resistance                      | Hydrocarbons resistant    |
| Electro magnetic interference resistance | Yes                       |
| Operating temperature, range             | -20 ... 60 °C             |
| Max. conductor temperature in service    | 70 °C                     |
| Standard                                 | NFM                       |



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**ELECTRICAL DATA NF M 87202**

**Electrical data**

| Section | Maximum Voltage (V) | Voltage Test (V) | DC Lineic resistance at 20°C (Ω/km) | Self Inductance mH/km |          | Capacitance between cond. (nF/km) |
|---------|---------------------|------------------|-------------------------------------|-----------------------|----------|-----------------------------------|
|         |                     |                  |                                     | Non Armoured          | Armoured |                                   |
| 05      | 250                 | 2 000            | 37.5                                | 0.33                  | 0.38     | ≤145                              |
| 09      | 250                 | 2 000            | 21.4                                | 0.31                  | 0.36     | ≤160                              |
| 15      | 250                 | 2 000            | 12.1                                | 0.31                  | 0.36     | ≤180                              |

**SELLING AND DELIVERY INFORMATION**

Minimum bending radius:

- 10 x outer diameter
- To be doubled during laying operations



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 70 °C