

Electrical Cables for Instrumentation ENI 0181.00
Flame Retardant Multipaires and Multitriples armoured
cables for Intrinsically Safe installations



Type PE/PVC/SWA/PVC - PE/OS/PVC/SWA/PVC - PE/IS/OS/PVC/SWA/PVC
FEXORAR - FEXOHRAR - FEXHOHRAR

Conductor

Plain annealed copper conductor according to CEI 20-29 class 5

- 0,50 mm² (16/0,2) - 1,5 mm² (28/0,25) - 6,0 mm² (81/0,3)
- 0,75 mm² (24/0,2) - 2,5 mm² (48/0,25) - 10 mm² (77/0,4)
- 1,0 mm² (32/0,2)

Insulation

Low Density Polyethylene according to CEI 20-11

- Identification pairs : - Each pair has one blue and one black core, numbered
- Each triples has one blue and one black one brown core, numbered

Laying up

Core twisted to pairs or triples; Pairs and triples twisted in concentric layers

Individual screen

Each pair/triple shall have a laminated screening tape of aluminium bonded to polyester, white copper tinned drain wire in electrical contact with the metallic side tape. Over the screening tape shall be applied a binder of PET tape.

Overall screen

Over the pair layer will be shielded with aluminium/mylar tape, with copper drain wire 20 AWG placed between the aluminium/mylar tape and further mylar tape. The drain wire is layed up with the other conductors. Telephone conductor arranged in central position.

Inner sheath

PVC type RZ cording to CEI 20-11, blue

Armour

Galvanized steel wires or braid

Outer sheath

PVC type RZ cording to CEI 20-11, Idrocarbon Resistant, blue.

Marking

On the outer sheath " manufacturer's name, year , description cable, ENI Code " with ink-jet printer.

Performance

Reaction to fire - Flame propagation : Test of single cable acc. to CEI 20-35/1-1

Minimum bending radius

10 times overall diameter

Technical data & Electrical properties

Temperature rating : - during operation - 40 + 60°C
- during installation - 15 + 50°C

Conductor resistance : acc. to CEI 20-29

Insulation resistance : > 5.000 Mohm x Km

Mutual capacitance : < 0,06 µF/Km

Inductance : < 0,9 mH/Km

Rated voltage : U/U_o = 300/300 V (Insulation degree 1,5) Test voltage - core/core : 1.500 V

Rated voltage : U/U_o = 450/750 V (Insulation degree 3) Test voltage - core/core : 3.000 V

Test voltage - core/shield : 1.000 V

Test voltage - adjacent shield : 125 V