



Instrumentation cable with reinforced outer sheath

Aluminium-laminated plastic foil static screen with tin-plated drain wire minimises the interference of high frequency, electromagnetic fields; Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects); Low capacitance due to polyolefin-based insulation



Product description

Application range

- In measurement and control engineering
- Intended for use when modern process computers have to process large volumes of data, e.g. high-capacity computer systems in waste incineration plants or sewage treatment plants
- These cables are suitable for fixed installation in dry or damp rooms, and the version with a black outer sheath can also be used outdoors or for direct burial

Benefits

- Aluminium-laminated plastic foil static screen with tin-plated drain wire minimises the interference of high frequency, electromagnetic fields
- Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects)
- Low capacitance due to polyolefin-based insulation

Product Make-up

- 7-wire bare stranded copper conductor, core insulation made of polyethylene (PE), cores twisted into pairs, pairs stranded in layers
- Complete stranding contains 1 core for communication (core colour orange); the communication core is omitted on single-pair versions
- Foil wrapping, static screening made of aluminium-laminated plastic film with tinned drain wire
- Reinforced outer sheath made of PVC
- Outer sheath colour: black (RAL 9005) or blue (RAL 5015)

Norm references / Approvals

- Based on EN 50288-7

Product features

- Outer sheath colour: black for outdoor applications or blue for intrinsically safe systems
- Flame-retardant according IEC 60332-1-2

Technical Data

Core identification code	a-core: black b-core: white with consecutive numbers: 1-1, 2-2, 3-3, 4-4 etc. Three-way version: black, white, red
Mutual capacitance	(guideline values at 800 Hz): C/C: 0.5 mm ² : max. 75 nF/km (guideline values at 800 Hz): C/C: 1.3 mm ² : max. 100 nF/km
Peak operating voltage	(not for power applications) 300 V
Classification	ETIM 5.0 Class-ID: EC000104 ETIM 5.0 Class-Description: Control cable
Conductor resistance	0.5 mm ² : max. 39.2 ohm/km 1.3 mm ² : max. 14.3 ohm/km
Minimum bending radius	Occasional flexing: 15 x outer diameter Fixed installation: 7.5 x outer diameter
Short-range crosstalk attenuation	At 60 kHz: min. 0.88 dB/km
Test voltage	Core/core: 2000 V Core/screen: 1000 V
Temperature range	Occasional flexing: -5°C to +50°C Fixed installation: -40°C to +80°C
Characteristic impedance	approx. 100 ohms