



## Instrumentation cable with reinforced outer sheath and pairs in metalfoil

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, pair screening made of aluminium-laminated plastic foil with bare copper drain wire, PiMF marking using numbered foil, pairs stranded in layers
- Complete stranding contains 1 core for communication (core colour orange); the communication core is omitted on single-pair versions
- Aluminium-laminated plastic foil static screen 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

- Computer cable with screened pairs and reinforced outer sheath
- 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<br>b-core: white<br>with consecutive numbers:<br>1-1, 2-2, 3-3, 4-4 etc.                              |
| Mutual capacitance                | (at 800 Hz max):<br>C/C: 0.5 mm <sup>2</sup> : 75 nF/km<br>(at 800 Hz max):<br>C/C: 1.3 mm <sup>2</sup> : 100 nF/km |
| Peak operating voltage            | (not for power applications)<br>300 V   |
| Classification                    | ETIM 5.0 Class-ID: EC000104<br>ETIM 5.0 Class-Description: Control cable  |
| Inductivity                       | max. 0.75 mH/km   |
| Conductor resistance              | 0.5 mm <sup>2</sup> : max. 39.2 ohm/km<br>1.3 mm <sup>2</sup> : max. 14.2 ohm/km                                    |
| Minimum bending radius            | Occasional flexing: 15 x outer diameter<br>Fixed installation: 7.5 x outer diameter                                 |
| Short-range crosstalk attenuation | At 60 kHz: min. 1.02 dB/km  |
| Test voltage                      | Core/core: 2000 V<br>Core/screen: 600 V   |
| Temperature range                 | Occasional flexing: -5°C to +50°C   |

## RE-2Y(ST)Yv PiMF



Characteristic impedance

Fixed installation: -40°C to +80°C  
approx. 100 ohms