


0032438	DATA SHEET	
valid from: 01.01.2019	UNITRONIC® RE-2Y(ST)Yv PiMF	

Application

UNITRONIC® RE-2Y(ST)Yv PiMF computer cables are mainly used in measurement and control engineering. They are 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, in case of the black jacketed versions, also for outdoor operation, while they all feature enhanced suitability for direct burial in the ground.

Design

Conductor	7-wire bare stranded copper conductor
Insulation	PE-based compound
Core identification code	a-core: black; b-core: white with consecutive numbers 1/1, 2/2, 3/3, 4/4 etc.
Stranding	2 cores twisted to pairs pair screening made of aluminium-laminated plastic foil with bare copper drain wire PiMF marking using numbered foil pairs stranded together with an orange 7-wire communication core (0,5 mm ²) Exception: one-pair-construction without communication core
Screen	static screen of aluminium-laminated plastic foil with multi-wired, tinned drain-wire
Outer sheath	PVC-based compound, flame retardant, reinforced sheath colour: black (similar RAL 9005); blue (similar RAL 5015)

Diameter of the outer sheath

Article number	Dimension	Outer sheath \varnothing
0032438/0032448	2 x 2 x 0.5 mm ²	ca. 10.0 mm
0032449	4 x 2 x 0.5 mm ²	ca. 11.6 mm
0032450	8 x 2 x 0.5 mm ²	ca. 14.4 mm
0032451	10 x 2 x 0.5 mm ²	ca. 15.9 mm
0032442	12 x 2 x 0.5 mm ²	ca. 16.7 mm
0032453	16 x 2 x 0.5 mm ²	ca. 19.1 mm
0032458/0032464	2 x 2 x 1.3 mm ²	ca. 12.4 mm
0032465	4 x 2 x 1.3 mm ²	ca. 14.2 mm
0032466	8 x 2 x 1.3 mm ²	ca. 18.5 mm
0032467	12 x 2 x 1.3 mm ²	ca. 22.2 mm

Electrical properties at 20°C

Conductor resistance	0.5 mm ² : max. 39.2 Ω /km 1.3 mm ² : max. 14.3 Ω /km
Specific volume resistivity	> 5 G Ω x km
Mutual capacitance	C/C: 0.5 mm ² : approx. 75 nF/km C/C: 1.3 mm ² : approx. 100 nF/km (reference values at 800 Hz)
Inductance	max. 0.65 mH/km
Characteristic impedance	approx. 100 Ω
Near-end cross-talk	min. 102 dB (60 kHz)
Peak operating voltage	300 V (not for power applications) in accordance with VDE 0812 table 4
Test voltage	C/C 2000 V C/S 600 V

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x cable \varnothing fixed installation: 7.5 x cable \varnothing
Temperature range	occasional flexing: -5 °C up to +50 °C fixed installation: -40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

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