



## TECHNICAL DATASHEET

RE-2X(St)YSWAY

Release 2022/08

### INSTRUMENTATION CABLE

#### STANDARD EN 50288-7

Single & Multi-Pair, XLPE-Insulation,  
Collective Screen, Armour, PVC-Sheath



#### Application

For transmission of analogue and digital signals in instrument and control systems; allowed for use in zone 1 and zone 2 group II classified areas (IEC60079-14); not allowed for direct connection to low impedance source, e.g. the public mains electricity supply. Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations, suitable for direct burial. (Please note the relevant legal / local installation requirements)

#### Construction

Type	RE	instrumentation cable EN 50228-7
Conductor		plain annealed copper wire, stranded class 2
Cross section		0.5 mm <sup>2</sup> , 0.75 mm <sup>2</sup> , 1 mm <sup>2</sup> , 1.3 mm <sup>2</sup> , 1.5 mm <sup>2</sup> , 2.5 mm <sup>2</sup>
Insulation	2X	cross-linked polyethylene XLPE
Colour code		black / white, continuously numbered for multi-element
Wrapping		at least 1 layer of plastic tape
Collective screen	(St)	aluminium / PETP tape over tinned copper drain wire, 0.5 mm <sup>2</sup>
Inner sheath	Y	polyvinyl chloride PVC, black
Armour	SWA	galvanised round steel wires
Outer sheath	Y	polyvinyl chloride PVC, black or blue for intrinsically safe systems
Cable marking		VOLTEC – RE-2X(St)YSWAY <size> – 300V – EN50288-7 IEC60332-3 IEC60332-1 EN50575:2014+A1:2016 CPR Class <class> <batch> <meter marking>

#### Technical data

Fire properties	IEC 60332-1, IEC 60332-3-24		
CPR	EN 50575:2014+A1:2016	Cca-s2,d1,a3 or better	
Limiting Oxygen Index (LOI)	ASTM D 2863	min. 30%	
Smoke Density	IEC 61034		
Amount of halogen acid gas	IEC 60754-1	max. 15%	
Acidity (ph value) and conductivity	IEC 60754-2		
Low Voltage Directive (LVD)	2014/35/EU		

#### Electrical and mechanical properties

Cross section acc. IEC 60228	0.5	0.75	1.0	1.3	1.5	2.5	nom. mm <sup>2</sup>
DC resistance @20°C		25.5		14.8			max Ω/km
Insulation		1.6		2.0			nom. mmØ
Mutual Capacitance		115		120			max nF/km
Inductance		1		1			max mH/km
L/R ratio	25	25	25	40	40	60	max µH/Ω
Insulation resistance @20°C				1000			MΩ*km
Test voltage				2000			V
Operating voltage				300			V
Temperature range							
- during installation		-5 up to +50					°C
- during operation		-30 up to +90					°C
Min. bending radius		14 x cable diameter					



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Black



Blue  
intrinsically safe

Range	Diameter Ømm	Pulling tension max N	Cu kg/km	Weight kg/km	Part no. Black	Part no. Blue
1x2x0.75	9.5	71	17.4	200	6934 0202	6934 0203
2x2x0.75	11.8	142	37.5	301	6934 0402	6934 0403
4x2x0.75	13.1	285	69.5	382	6934 0802	6934 0803
8x2x0.75					6934 1602	6934 1603
12x2x0.75					6934 2402	6934 2403
16x2x0.75	20.0	1139	261.8	861	6934 3202	6934 3203
20x2x0.75	23.6	1424		1180	6934 4002	6934 4003
24x2x0.75					6934 4802	6934 4803

Range	Diameter Ømm	Pulling tension max N	Cu kg/km	Weight kg/km	Part no. Black	Part no. Blue
1x2x1.3	10.3	121		244	6937 0202	6937 0203
2x2x1.3					6937 0402	6937 0403
4x2x1.3	14.8	486	110.6	484	6937 0802	6937 0803
8x2x1.3					6937 1602	6937 1603
12x2x1.3					6937 2402	6937 2403
16x2x1.3					6937 3202	6937 3203
20x2x1.3					6937 4002	6937 4003
24x2x1.3					6937 4802	6937 4803

