



TECHNICAL DATASHEET

RE-2X(St)YSWBV

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 ² , 0.75 mm ² , 1 mm ² , 1.3 mm ² , 1.5 mm ² , 2.5 mm ²
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 ²
Inner sheath	Y	polyvinyl chloride PVC, black
Armour	SWB	galvanised steel wire braid
Outer sheath	Y	polyvinyl chloride PVC, black or blue for intrinsically safe systems
Cable marking		VOLTEC – RE-2X(St)YSWBV <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 ²
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		10 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	8.9	71		154	6754 0202	6754 0203
2x2x0.75	11.2	142	33.4	234	6754 0402	6754 0403
4x2x0.75	12.4	285		300	6754 0802	6754 0803
8x2x0.75	15.3	570	129.5	446	6754 1602	6754 1603
12x2x0.75					6754 2402	6754 2403
16x2x0.75	19.3	1139	257.7	707	6754 3202	6754 3203
20x2x0.75					6754 4002	6754 4003
24x2x0.75	23.3	1709		975	6754 4802	6754 4803

Range	Diameter Ømm	Pulling tension max N	Cu kg/km	Weight kg/km	Part no. Black	Part no. Blue
1x2x1.3					6757 0202	6757 0203
2x2x1.3					6757 0402	6757 0403
4x2x1.3					6757 0802	6757 0803
8x2x1.3					6757 1602	6757 1603
12x2x1.3					6757 2402	6757 2403
16x2x1.3					6757 3202	6757 3203
20x2x1.3					6757 4002	6757 4003
24x2x1.3	27.5	2913	656.7	1412	6757 4802	6757 4803

