



TECHNICAL DATASHEET

RE-2X(St)Yv

Release 2023/04

INSTRUMENTATION CABLE

STANDARD EN 50288-7

Single & Multi-Pair, XLPE-Insulation,
Collective Screen, Reinforced 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, not 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
Outer sheath	Yv	polyvinyl chloride PVC, reinforced, black or blue for intrinsically safe systems
Cable marking		VOLTEC – RE-2X(St)Yv <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		
UV resistant	UL 1581 section 1200 (on request)		

Electrical and mechanical properties

	0.5	0.75	1.0	1.3	1.5	2.5	
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		75		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		8 x cable diameter					



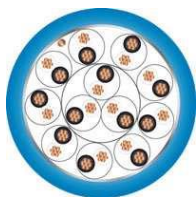
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Black



Blue
intrinsically safe

Range	Diameter Ømm	Pulling tension max N	Cu kg/km	Weight kg/km	Part no. Black	Part no. Blue
1x2x0.75	6.3	71	17.4	64	6504 0202	6504 0203
2x2x0.75	8.5	142	33.4	107	6504 0402	6504 0403
4x2x0.75	9.7	285	65.5	158	6504 0802	6504 0803
8x2x0.75	12.4	570	129.5	270	6504 1602	6504 1603
12x2x0.75	14.7	855	193.6	377	6504 2402	6504 2403
16x2x0.75	16.2	1139	257.7	479	6504 3202	6504 3203
20x2x0.75	18.2	1424	321.8	585	6504 4002	6504 4003
24x2x0.75	20.0	1709	385.9	691	6504 4802	6504 4803

Range	Diameter Ømm	Pulling tension max N	Cu kg/km	Weight kg/km	Part no. Black	Part no. Blue
1x2x1.3	7.1	121	28.7	85	6507 0202	6507 0203
2x2x1.3	9.9	243	56.0	145	6507 0402	6507 0403
4x2x1.3	13.6			225	6507 0802	6507 0803
8x2x1.3	16.9			373	6507 1602	6507 1603
12x2x1.3	19.9			523	6507 2402	6507 2403
16x2x1.3	21.6			654	6507 3202	6507 3203
20x2x1.3					6507 4002	6507 4003
24x2x1.3	24.0	2913	656.7	1055	6507 4802	6507 4803

all values approximate and subject to alterations

