



Caledonian

EN 50288-7
XLPE, PE & PVC Insulated
PVC Sheathed
Instrumentation Cables



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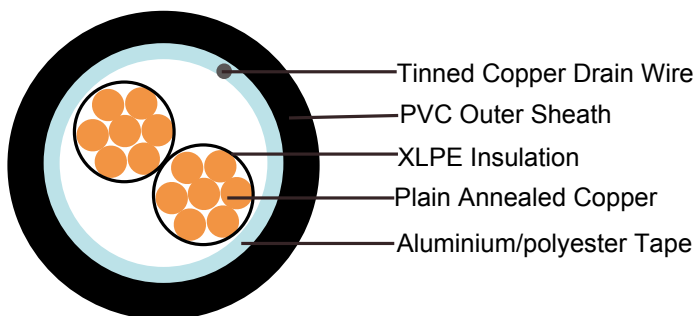
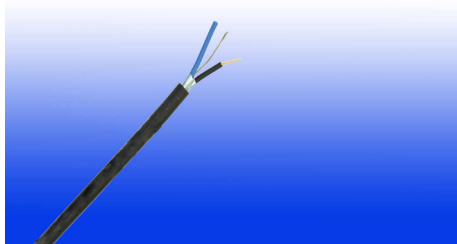


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XLPE Insulated, PVC Sheathed & Overall Screened Instrumentation Cables (Multicore)

RE-2X(St)Y 90°C / 500V



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 (IEC 79-14), not allowed for direct connection to low impedance sources, e.g. public mains electricity supply.

Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations.

Recommended for use as fire protection measure for people and important material assets.

STANDARDS

Basic design to EN 50288-7

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)***	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4
Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk * denotes superseded standard, *** denotes optional.



VOLTAGE RATING

500V

CABLE CONSTRUCTION

Conductor: Annealed copper solid or plain copper stranded to IEC 60228 Class 2.

Insulation: Extruded cross-linked XLPE compound as per EN 50290-2-29.

Overall Screen: Aluminium/polyester tape with tinned copper drain wire, 0.5mm².

Outer Sheath: Thermoplastic PVC compound as per EN 50290-2-22. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

COLOUR CODE

Insulation: Black numbered.

Outer Sheath: Black, blue for intrinsically safe systems.

PHYSICAL AND THERMAL PROPERTIES

Temperature Range During Operation (Fixed State): -30°C – +90°C

Temperature Range During Installation (Mobile State): -5°C – +50°C

Minimum Bending Radius: 7.5 X Overall Diameter

Sunlight Resistance: UL 1581 section 1200

Oil Resistance: ICEA S-73-532 (Test temperature +60°C, duration 4h. Retention: min 60% of tensile strength/min.60% of elongation)

ELECTRICAL PROPERTIES

Conductor Area Size	mm ²	0.5	0.75	1.0	1.3	1.5	2.5
Insulation thickness (nominal)	mm	0.55	0.55	0.55	0.6	0.6	0.7
Conductor resistance (20°C)	Ω/km	36.7	25.0	18.5	14.2	12.3	7.4
Insulation resistance (20°C)	MΩ.km(Min.)	5000					
Mutual Capacitance (1 kHz)	pF/m(Max.)	115					
Capacitance unbalance(1 kHz)	pF/500 m (Max.)	500					
L / R (ratio) (max.)	μH/Ω	25	25	25	40	40	60
Operating voltage	V	500					
Test Voltage U _{rms}	Core to Core	2000					
	Core to Screen	2000					



CONSTRUCTION PARAMETERS

Caledonian Cable Code	RE-2X(St)Y		
	No. of Core x1xCross Section	Nominal Insulation Thickness	Nominal Sheath Thickness
	No.x1xmm ²	mm	mm
0.5mm ² , Multicore			
RE-2X(St)Y 2C0.5	2x1x0.5	0.55	0.9
RE-2X(St)Y 3C0.5	3x1x0.5	0.55	0.9
RE-2X(St)Y 4C0.5	4x1x0.5	0.55	0.9
RE-2X(St)Y 5C0.5	5x1x0.5	0.55	0.9
RE-2X(St)Y 8C0.5	8x1x0.5	0.55	1.0
RE-2X(St)Y 10C0.5	10x1x0.5	0.55	1.0
RE-2X(St)Y 12C0.5	12x1x0.5	0.55	1.0
RE-2X(St)Y 14C0.5	14x1x0.5	0.55	1.0
RE-2X(St)Y 16C0.5	16x1x0.5	0.55	1.1
RE-2X(St)Y 20C0.5	20x1x0.5	0.55	1.1
RE-2X(St)Y 24C0.5	24x1x0.5	0.55	1.1
RE-2X(St)Y 27C0.5	27x1x0.5	0.55	1.2
RE-2X(St)Y 30C0.5	30x1x0.5	0.55	1.2
RE-2X(St)Y 37C0.5	37x1x0.5	0.55	1.2
RE-2X(St)Y 40C0.5	40x1x0.5	0.55	1.2
0.75mm ² , Multicore			
RE-2X(St)Y 2C0.75	2x1x0.75	0.55	0.9
RE-2X(St)Y 3C0.75	3x1x0.75	0.55	0.9
RE-2X(St)Y 4C0.75	4x1x0.75	0.55	0.9
RE-2X(St)Y 5C0.75	5x1x0.75	0.55	0.9
RE-2X(St)Y 8C0.75	8x1x0.75	0.55	1.0
RE-2X(St)Y 10C0.75	10x1x0.75	0.55	1.0
RE-2X(St)Y 12C0.75	12x1x0.75	0.55	1.0
RE-2X(St)Y 14C0.75	14x1x0.75	0.55	1.1
RE-2X(St)Y 16C0.75	16x1x0.75	0.55	1.1
RE-2X(St)Y 20C0.75	20x1x0.75	0.55	1.1



Caledonian Cable Code	RE-2X(St)Y		
	No. of Core x1xCross Section	Nominal Insulation Thickness	Nominal Sheath Thickness
	No.x1xmm ²	mm	mm
RE-2X(St)Y 24C0.75	24x1x0.75	0.55	1.2
RE-2X(St)Y 27C0.75	27x1x0.75	0.55	1.2
RE-2X(St)Y 30C0.75	30x1x0.75	0.55	1.2
RE-2X(St)Y 37C0.75	37x1x0.75	0.55	1.2
RE-2X(St)Y 40C0.75	40x1x0.75	0.55	1.3
1.0mm ² , Multicore			
RE-2X(St)Y 2C1.0	2x1x1.0	0.55	0.9
RE-2X(St)Y 3C1.0	3x1x1.0	0.55	0.9
RE-2X(St)Y 4C1.0	4x1x1.0	0.55	0.9
RE-2X(St)Y 5C1.0	5x1x1.0	0.55	0.9
RE-2X(St)Y 8C1.0	8x1x1.0	0.55	1.0
RE-2X(St)Y 10C1.0	10x1x1.0	0.55	1.0
RE-2X(St)Y 12C1.0	12x1x1.0	0.55	1.0
RE-2X(St)Y 14C1.0	14x1x1.0	0.55	1.1
RE-2X(St)Y 16C1.0	16x1x1.0	0.55	1.1
RE-2X(St)Y 20C1.0	20x1x1.0	0.55	1.1
RE-2X(St)Y 24C1.0	24x1x1.0	0.55	1.2
RE-2X(St)Y 27C1.0	27x1x1.0	0.55	1.2
RE-2X(St)Y 30C1.0	30x1x1.0	0.55	1.2
RE-2X(St)Y 37C1.0	37x1x1.0	0.55	1.2
RE-2X(St)Y 40C1.0	40x1x1.0	0.55	1.3
1.3mm ² , Multicore			
RE-2X(St)Y 2C1.3	2x1x1.3	0.6	0.9
RE-2X(St)Y 3C1.3	3x1x1.3	0.6	0.9
RE-2X(St)Y 4C1.3	4x1x1.3	0.6	0.9
RE-2X(St)Y 5C1.3	5x1x1.3	0.6	1.0
RE-2X(St)Y 8C1.3	8x1x1.3	0.6	1.0
RE-2X(St)Y 10C1.3	10x1x1.3	0.6	1.1

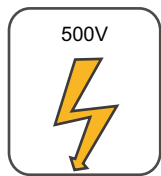


Caledonian Cable Code	RE-2X(St)Y		
	No. of Core x1xCross Section	Nominal Insulation Thickness	Nominal Sheath Thickness
	No.x1xmm ²	mm	mm
RE-2X(St)Y 12C1.3	12x1x1.3	0.6	1.1
RE-2X(St)Y 14C1.3	14x1x1.3	0.6	1.1
RE-2X(St)Y 16C1.3	16x1x1.3	0.6	1.1
RE-2X(St)Y 20C1.3	20x1x1.3	0.6	1.2
RE-2X(St)Y 24C1.3	24x1x1.3	0.6	1.2
RE-2X(St)Y 27C1.3	27x1x1.3	0.6	1.3
RE-2X(St)Y 30C1.3	30x1x1.3	0.6	1.3
RE-2X(St)Y 37C1.3	37x1x1.3	0.6	1.3
RE-2X(St)Y 40C1.3	40x1x1.3	0.6	1.4
1.5mm ² , Multicore			
RE-2X(St)Y 2C1.5	2x1x1.5	0.6	0.9
RE-2X(St)Y 3C1.5	3x1x1.5	0.6	0.9
RE-2X(St)Y 4C1.5	4x1x1.5	0.6	0.9
RE-2X(St)Y 5C1.5	5x1x1.5	0.6	1.0
RE-2X(St)Y 8C1.5	8x1x1.5	0.6	1.0
RE-2X(St)Y 10C1.5	10x1x1.5	0.6	1.1
RE-2X(St)Y 12C1.5	12x1x1.5	0.6	1.1
RE-2X(St)Y 14C1.5	14x1x1.5	0.6	1.1
RE-2X(St)Y 16C1.5	16x1x1.5	0.6	1.1
RE-2X(St)Y 20C1.5	20x1x1.5	0.6	1.2
RE-2X(St)Y 24C1.5	24x1x1.5	0.6	1.3
RE-2X(St)Y 27C1.5	27x1x1.5	0.6	1.3
RE-2X(St)Y 30C1.5	30x1x1.5	0.6	1.3
RE-2X(St)Y 37C1.5	37x1x1.5	0.6	1.4
RE-2X(St)Y 40C1.5	40x1x1.5	0.6	1.4
2.5mm ² , Multicore			
RE-2X(St)Y 2C2.5	2x1x2.5	0.7	0.9
RE-2X(St)Y 3C2.5	3x1x2.5	0.7	1.0



Caledonian Cable Code	RE-2X(St)Y		
	No. of Core x1xCross Section	Nominal Insulation Thickness	Nominal Sheath Thickness
	No.x1xmm ²	mm	mm
RE-2X(St)Y 4C2.5	4x1x2.5	0.7	1.0
RE-2X(St)Y 5C2.5	5x1x2.5	0.7	1.0
RE-2X(St)Y 8C2.5	8x1x2.5	0.7	1.1
RE-2X(St)Y 10C2.5	10x1x2.5	0.7	1.2
RE-2X(St)Y 12C2.5	12x1x2.5	0.7	1.2
RE-2X(St)Y 14C2.5	14x1x2.5	0.7	1.2
RE-2X(St)Y 16C2.5	16x1x2.5	0.7	1.3
RE-2X(St)Y 20C2.5	20x1x2.5	0.7	1.3
RE-2X(St)Y 24C2.5	24x1x2.5	0.7	1.4
RE-2X(St)Y 27C2.5	27x1x2.5	0.7	1.4
RE-2X(St)Y 30C2.5	30x1x2.5	0.7	1.5
RE-2X(St)Y 37C2.5	37x1x2.5	0.7	1.5
RE-2X(St)Y 40C2.5	40x1x2.5	0.7	1.6

Note : Other conductor sizes & core configurations are available upon request.



Rated Voltage



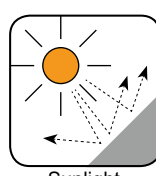
Standard



Flame Retardancy
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1



Reduced Fire Propagation
NF C32-070-2.2(C1)
IEC60332-3-24
EN50266-2-4



Sunlight
Resistance
UL 1581
section 1200



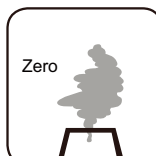
Low Toxicity
NES 02-713/NF C 20-454



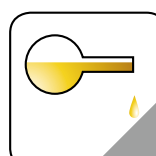
Low Corrosivity
IEC60754-2
EN50267-2-2/3
NF C 32-074



Low Smoke Emission
IEC 61034-1&2
EN 50268-1&2/NF C32-073



Halogen Free
IEC60754-1
EN50267-2-1



Oil Resistance
ICEA S-73-532