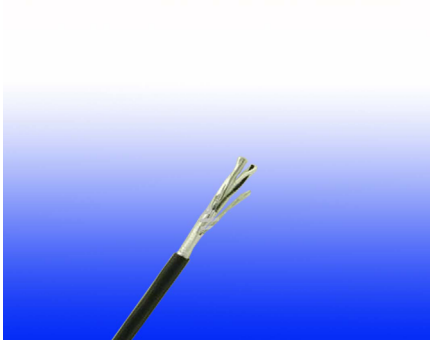
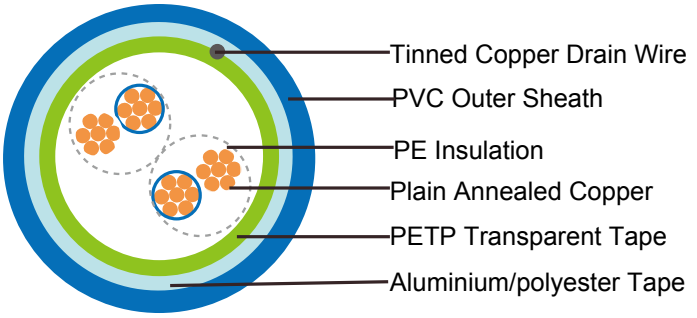
PE Insulated, PVC Sheathed & Overall Screened Instrumentation Cables (Multipair)

RE-2Y(St)Y 90°C / 300V





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 outerdoor installation, on racks, trays, in conduits, in dry and wet locations.

Recommended for use as fire protection messure 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Note: Asterisk * denotes superseded standard, *** denotes optional.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

300V

CABLE CONSTRUCTION

Conductor: Annealed copper solid or plain copper stranded to IEC 60228 Class 2.
Insulation: PE compound as per EN 50290. 2-23.
Pairs: Two insulated conductors uniformly twisted together with a specified length lay.
Binder tape: PETP transparent tape.
Overall Screen: Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact 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 / White, continuously numbered on white core(1, 2..)for multipair.
Outer Sheath: Black or 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
Insulation thickness (nominal)	mm	0.35	0.38	0.4	0.45	0.45
Conductor resistance (20°C)	Ω/km	36.7	25	18.5	14.2	12.3
Insulation resistance (20°C)	MΩ.km(Min.)	5000				
Mutual Capacitance (1 kHz)	pF/m(Max.)					
	≤ 4 pairs	90	90	90	102	102
	all other pairs	75	75	75	85	85
Capacitance unbalance(1 kHz)	pF/500 m (Max.)	500				
Inductance	mH/km (Max.)	1				

L / R (ratio) (max.)		µH/Ω	25	25	25	40	40
Operating voltage Urms		V	300				
Test Voltage	Core to Core	V	1500				
	Core to Screen	V	1500				

CONSTRUCTION PARAMETERS

Caledonian Cable Code	RE-2Y(St)Y		
	No. of Pairsx2 xCross Section	Nominal Insulation Thickness	Nominal Outer Sheath Thickness
	No.x2xmm^2	mm	mm
0.5mm^2, Multipair			
RE-2Y(St)Y 2P0.5	2x2x0.5	0.35	0.9
RE-2Y(St)Y 4P0.5	4x2x0.5	0.35	0.9
RE-2Y(St)Y 5P0.5	5x2x0.5	0.35	1.0
RE-2Y(St)Y 6P0.5	6x2x0.5	0.35	1.0
RE-2Y(St)Y 8P0.5	8x2x0.5	0.35	1.0
RE-2Y(St)Y 10P0.5	10x2x0.5	0.35	1.1
RE-2Y(St)Y 12P0.5	12x2x0.5	0.35	1.1
RE-2Y(St)Y 16P0.5	16x2x0.5	0.35	1.1
RE-2Y(St)Y 20P0.5	20x2x0.5	0.35	1.2
RE-2Y(St)Y 24P0.5	24x2x0.5	0.35	1.2
0.75mm^2, Multipair			
RE-2Y(St)Y 2P0.75	2x2x0.75	0.38	0.9
RE-2Y(St)Y 4P0.75	4x2x0.75	0.38	1.0
RE-2Y(St)Y 5P0.75	5x2x0.75	0.38	1.0
RE-2Y(St)Y 6P0.75	6x2x0.75	0.38	1.0
RE-2Y(St)Y 8P0.75	8x2x0.75	0.38	1.1
RE-2Y(St)Y 10P0.75	10x2x0.75	0.38	1.1
RE-2Y(St)Y 12P0.75	12x2x0.75	0.38	1.1
RE-2Y(St)Y 16P0.75	16x2x0.75	0.38	1.2
RE-2Y(St)Y 20P0.75	20x2x0.75	0.38	1.3
RE-2Y(St)Y 24P0.75	24x2x0.75	0.38	1.3

Caledonian Cable Code	RE-2Y(St)Y		
	No. of Pairsx2 xCross Section	Nominal Insulation Thickness	Nominal Outer Sheath Thickness
	No.x2xmm^2	mm	mm
1.0mm^2, Multipair			
RE-2Y(St)Y 2P1.0	2x2x1.0	0.4	0.9
RE-2Y(St)Y 4P1.0	4x2x1.0	0.4	1.0
RE-2Y(St)Y 5P1.0	5x2x1.0	0.4	1.0
RE-2Y(St)Y 6P1.0	6x2x1.0	0.4	1.0
RE-2Y(St)Y 8P1.0	8x2x1.0	0.4	1.1
RE-2Y(St)Y 10P1.0	10x2x1.0	0.4	1.1
RE-2Y(St)Y 12P1.0	12x2x1.0	0.4	1.2
RE-2Y(St)Y 16P1.0	16x2x1.0	0.4	1.2
RE-2Y(St)Y 20P1.0	20x2x1.0	0.4	1.3
RE-2Y(St)Y 24P1.0	24x2x1.0	0.4	1.4
1.3mm^2, Multipair			
RE-2Y(St)Y 2P1.3	2x2x1.3	0.45	1.0
RE-2Y(St)Y 4P1.3	4x2x1.3	0.45	1.0
RE-2Y(St)Y 5P1.3	5x2x1.3	0.45	1.1
RE-2Y(St)Y 6P1.3	6x2x1.3	0.45	1.1
RE-2Y(St)Y 8P1.3	8x2x1.3	0.45	1.2
RE-2Y(St)Y 10P1.3	10x2x1.3	0.45	1.2
RE-2Y(St)Y 12P1.3	12x2x1.3	0.45	1.3
RE-2Y(St)Y 16P1.3	16x2x1.3	0.45	1.3
RE-2Y(St)Y 20P1.3	20x2x1.3	0.45	1.4
RE-2Y(St)Y 24P1.3	24x2x1.3	0.45	1.5
1.5mm^2, Multipair			
RE-2Y(St)Y 2P1.5	2x2x1.5	0.45	1.0
RE-2Y(St)Y 4P1.5	4x2x1.5	0.45	1.1
RE-2Y(St)Y 5P1.5	5x2x1.5	0.45	1.1
RE-2Y(St)Y 6P1.5	6x2x1.5	0.45	1.2

Caledonian Cable Code	RE-2Y(St)Y		
	No. of Pairsx2 xCross Section	Nominal Insulation Thickness	Nominal Outer Sheath Thickness
	No.x2xmm^2	mm	mm
RE-2Y(St)Y 8P1.5	8x2x1.5	0.45	1.2
RE-2Y(St)Y 10P1.5	10x2x1.5	0.45	1.3
RE-2Y(St)Y 12P1.5	12x2x1.5	0.45	1.3
RE-2Y(St)Y 16P1.5	16x2x1.5	0.45	1.4
RE-2Y(St)Y 20P1.5	20x2x1.5	0.45	1.5
RE-2Y(St)Y 24P1.5	24x2x1.5	0.45	1.5

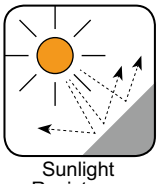
Note : Other conductor sizes & core configurations are available upon request.

Rated Voltage

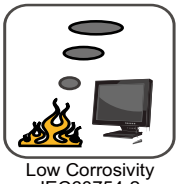
Standard


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