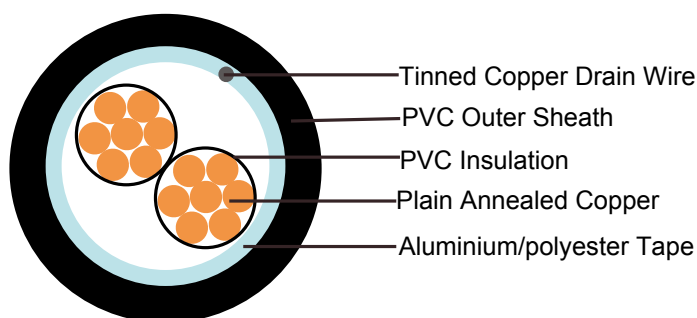
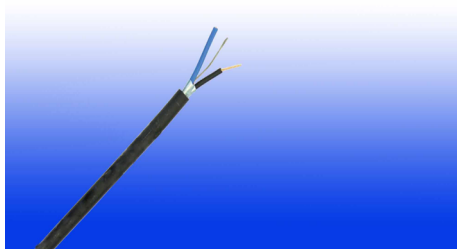




### PVC Insulated, PVC Sheathed & Overall Screened Instrumentation Cables (Multicore)

RE-Y(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:** PVC compound as per EN 50290-2-21.

**Overall Screen:** Aluminium/polyester tape with tinned copper drain wire, 0.5mm<sup>2</sup>.

**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 <sup>2</sup> | 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<br>U <sub>rms</sub> | Core to Core    | 2000 |      |      |      |      |     |
|                                  | Core to Screen  | 2000 |      |      |      |      |     |



### CONSTRUCTION PARAMETERS

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



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

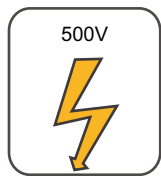


| Caledonian Cable Code          | RE-Y(St)Y                    |                              |                          |
|--------------------------------|------------------------------|------------------------------|--------------------------|
|                                | No. of Core x1xCross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



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

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



Rated Voltage



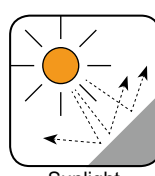
Standard



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



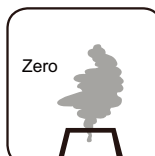
Low Toxicity  
NES 02-713/NF C 20-454



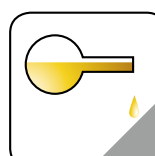
Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



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