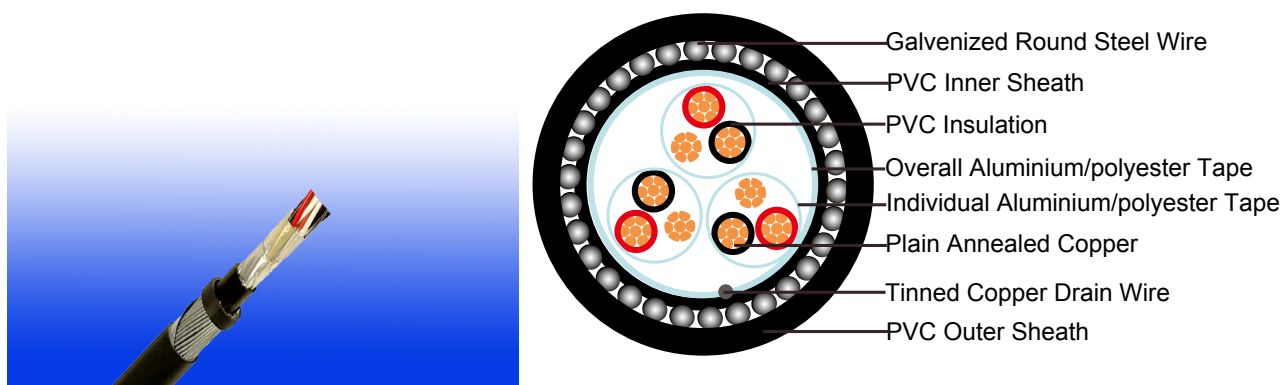




## PVC Insulated, PVC Sheathed, Individual & Overall Screened, Armoured Instrumentation Cables (Multitriples)

RE-Y(St)YSWAY-TiMF 70°C / 300 V



### 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; suitable for direct burial.

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

### STANDARDS

Basic design to EN50288-7

### 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:** PVC compound as per EN 50290-2-21.

**Individual Screen:** Aluminium/polyester tape is applied over each triple metallic side down in contact with tinned copper drain wire, 0.5mm<sup>2</sup>.

**Triple:** Three conductors twisted to form a triple.

**Lay-up:** Triples laid up in layers of optimum pitch.

**Separator:** Polyester tape.

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

**Inner Sheath:** Thermoplastic PVC compound.

**Armour:** Galvanized round steel wire, EN 10257-1.

**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 / Red, continuously numbered on white core(1, 2..)for multitruples.

**Outer Sheath:** Black or blue for intrinsically safe systems.

### PHYSICAL AND THERMAL PROPERTIES

**Temperature Range During Operation (Fixed State):** -30°C – +70°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  |
| 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.)      | 115  |      |      |      |      |



|                              |                |                 |      |    |    |    |    |
|------------------------------|----------------|-----------------|------|----|----|----|----|
| Inductance                   |                | mH/km(Max.)     | 1    |    |    |    |    |
| Capacitance unbalance(1 kHz) |                | pF/500 m (Max.) | 500  |    |    |    |    |
| 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-Y(St)YSWAY-TiMF                    |                                         |                                              |                                                           |                                       |                                              |
|------------------------------------|---------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------------------------|---------------------------------------|----------------------------------------------|
|                                    | No. of Triples<br>x3xCross<br>Section | Nominal<br>Insulation<br>Thick-<br>ness | Nominal<br>Inner<br>Sheath<br>Thick-<br>ness | Nominal<br>Overall<br>Diameter<br>Over<br>Inner<br>Sheath | Nominal<br>Armour<br>Wire<br>Diameter | Nominal<br>Outer<br>Sheath<br>Thick-<br>ness |
|                                    | No.x3xmm <sup>2</sup>                 | mm                                      | mm                                           | mm                                                        | mm                                    | mm                                           |
| 0.5mm <sup>2</sup> , Multi-stripe  |                                       |                                         |                                              |                                                           |                                       |                                              |
| RE-Y(St)YSWAY-TiMF 2T0.5           | 2x3x0.5                               | 0.35                                    | 1.0                                          | 9.7                                                       | 0.9                                   | 1.4                                          |
| RE-Y(St)YSWAY-TiMF 4T0.5           | 4x3x0.5                               | 0.35                                    | 1.0                                          | 11.1                                                      | 0.9                                   | 1.4                                          |
| RE-Y(St)YSWAY-TiMF 5T0.5           | 5x3x0.5                               | 0.35                                    | 1.1                                          | 12.4                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 6T0.5           | 6x3x0.5                               | 0.35                                    | 1.1                                          | 14.0                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 8T0.5           | 8x3x0.5                               | 0.35                                    | 1.1                                          | 14.9                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 10T0.5          | 10x3x0.5                              | 0.35                                    | 1.2                                          | 17.0                                                      | 1.25                                  | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 12T0.5          | 12x3x0.5                              | 0.35                                    | 1.2                                          | 17.6                                                      | 1.25                                  | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 16T0.5          | 16x3x0.5                              | 0.35                                    | 1.3                                          | 20.1                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 20T0.5          | 20x3x0.5                              | 0.35                                    | 1.4                                          | 22.3                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 24T0.5          | 24x3x0.5                              | 0.35                                    | 1.5                                          | 24.4                                                      | 1.25                                  | 1.8                                          |
| 0.75mm <sup>2</sup> , Multi-stripe |                                       |                                         |                                              |                                                           |                                       |                                              |
| RE-Y(St)YSWAY-TiMF 2T0.75          | 2x3x0.75                              | 0.38                                    | 1.0                                          | 10.6                                                      | 0.9                                   | 1.4                                          |
| RE-Y(St)YSWAY-TiMF 4T0.75          | 4x3x0.75                              | 0.38                                    | 1.1                                          | 12.4                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 5T0.75          | 5x3x0.75                              | 0.38                                    | 1.1                                          | 13.7                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 6T0.75          | 6x3x0.75                              | 0.38                                    | 1.1                                          | 15.4                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 8T0.75          | 8x3x0.75                              | 0.38                                    | 1.2                                          | 16.7                                                      | 0.9                                   | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 10T0.75         | 10x3x0.75                             | 0.38                                    | 1.3                                          | 19.0                                                      | 1.25                                  | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 12T0.75         | 12x3x0.75                             | 0.38                                    | 1.3                                          | 19.7                                                      | 1.25                                  | 1.7                                          |



| Caledonian Cable Code             | RE-Y(St)YSWAY-TiMF                    |                                         |                                              |                                                           |                                       |                                              |
|-----------------------------------|---------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------------------------|---------------------------------------|----------------------------------------------|
|                                   | No. of Triples<br>x3xCross<br>Section | Nominal<br>Insulation<br>Thick-<br>ness | Nominal<br>Inner<br>Sheath<br>Thick-<br>ness | Nominal<br>Overall<br>Diameter<br>Over<br>Inner<br>Sheath | Nominal<br>Armour<br>Wire<br>Diameter | Nominal<br>Outer<br>Sheath<br>Thick-<br>ness |
|                                   | No.x3xmm <sup>2</sup>                 | mm                                      | mm                                           | mm                                                        | mm                                    | mm                                           |
| RE-Y(St)YSWAY-TiMF 16T0.75        | 16x3x0.75                             | 0.38                                    | 1.4                                          | 22.5                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 20T0.75        | 20x3x0.75                             | 0.38                                    | 1.5                                          | 24.9                                                      | 1.25                                  | 1.8                                          |
| RE-Y(St)YSWAY-TiMF 24T0.75        | 24x3x0.75                             | 0.38                                    | 1.6                                          | 27.2                                                      | 1.25                                  | 1.9                                          |
| 1.0mm <sup>2</sup> , Multi-stripe |                                       |                                         |                                              |                                                           |                                       |                                              |
| RE-Y(St)YSWAY-TiMF 2T1.0          | 2x3x1.0                               | 0.4                                     | 1.0                                          | 11.5                                                      | 0.9                                   | 1.4                                          |
| RE-Y(St)YSWAY-TiMF 4T1.0          | 4x3x1.0                               | 0.4                                     | 1.1                                          | 13.4                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 5T1.0          | 5x3x1.0                               | 0.4                                     | 1.1                                          | 14.8                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 6T1.0          | 6x3x1.0                               | 0.4                                     | 1.2                                          | 16.9                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 8T1.0          | 8x3x1.0                               | 0.4                                     | 1.2                                          | 18.1                                                      | 1.25                                  | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 10T1.0         | 10x3x1.0                              | 0.4                                     | 1.3                                          | 20.7                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 12T1.0         | 12x3x1.0                              | 0.4                                     | 1.3                                          | 21.4                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 16T1.0         | 16x3x1.0                              | 0.4                                     | 1.4                                          | 24.4                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 20T1.0         | 20x3x1.0                              | 0.4                                     | 1.5                                          | 27.1                                                      | 1.25                                  | 1.8                                          |
| RE-Y(St)YSWAY-TiMF 24T1.0         | 24x3x1.0                              | 0.4                                     | 1.6                                          | 29.6                                                      | 1.6                                   | 1.9                                          |
| 1.3mm <sup>2</sup> , Multi-stripe |                                       |                                         |                                              |                                                           |                                       |                                              |
| RE-Y(St)YSWAY-TiMF 2T1.3          | 2x3x1.3                               | 0.45                                    | 1.1                                          | 12.8                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 4T1.3          | 4x3x1.3                               | 0.45                                    | 1.1                                          | 14.7                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 5T1.3          | 5x3x1.3                               | 0.45                                    | 1.2                                          | 16.5                                                      | 0.9                                   | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 6T1.3          | 6x3x1.3                               | 0.45                                    | 1.3                                          | 18.8                                                      | 1.25                                  | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 8T1.3          | 8x3x1.3                               | 0.45                                    | 1.3                                          | 20.1                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 10T1.3         | 10x3x1.3                              | 0.45                                    | 1.4                                          | 23.0                                                      | 1.25                                  | 1.8                                          |
| RE-Y(St)YSWAY-TiMF 12T1.3         | 12x3x1.3                              | 0.45                                    | 1.5                                          | 24.0                                                      | 1.25                                  | 1.8                                          |
| RE-Y(St)YSWAY-TiMF 16T1.3         | 16x3x1.3                              | 0.45                                    | 1.6                                          | 27.4                                                      | 1.25                                  | 1.9                                          |
| RE-Y(St)YSWAY-TiMF 20T1.3         | 20x3x1.3                              | 0.45                                    | 1.7                                          | 30.4                                                      | 1.6                                   | 2.0                                          |
| RE-Y(St)YSWAY-TiMF 24T1.3         | 24x3x1.3                              | 0.45                                    | 1.8                                          | 33.1                                                      | 1.6                                   | 2.0                                          |
| 1.5mm <sup>2</sup> , Multi-stripe |                                       |                                         |                                              |                                                           |                                       |                                              |
| RE-Y(St)YSWAY-TiMF 2T1.5          | 2x3x1.5                               | 0.45                                    | 1.1                                          | 13.2                                                      | 0.9                                   | 1.5                                          |
| RE-Y(St)YSWAY-TiMF 4T1.5          | 4x3x1.5                               | 0.45                                    | 1.2                                          | 15.4                                                      | 0.9                                   | 1.5                                          |



| Caledonian Cable Code     | RE-Y(St)YSWAY-TiMF                    |                                         |                                              |                                                           |                                       |                                              |
|---------------------------|---------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------------------------|---------------------------------------|----------------------------------------------|
|                           | No. of Triples<br>x3xCross<br>Section | Nominal<br>Insulation<br>Thick-<br>ness | Nominal<br>Inner<br>Sheath<br>Thick-<br>ness | Nominal<br>Overall<br>Diameter<br>Over<br>Inner<br>Sheath | Nominal<br>Armour<br>Wire<br>Diameter | Nominal<br>Outer<br>Sheath<br>Thick-<br>ness |
|                           | No.x3xmm <sup>2</sup>                 | mm                                      | mm                                           | mm                                                        | mm                                    | mm                                           |
| RE-Y(St)YSWAY-TiMF 5T1.5  | 5x3x1.5                               | 0.45                                    | 1.2                                          | 17.1                                                      | 1.25                                  | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 6T1.5  | 6x3x1.5                               | 0.45                                    | 1.3                                          | 19.5                                                      | 1.25                                  | 1.6                                          |
| RE-Y(St)YSWAY-TiMF 8T1.5  | 8x3x1.5                               | 0.45                                    | 1.4                                          | 21.1                                                      | 1.25                                  | 1.7                                          |
| RE-Y(St)YSWAY-TiMF 10T1.5 | 10x3x1.5                              | 0.45                                    | 1.5                                          | 24.1                                                      | 1.25                                  | 1.8                                          |
| RE-Y(St)YSWAY-TiMF 12T1.5 | 12x3x1.5                              | 0.45                                    | 1.5                                          | 24.9                                                      | 1.25                                  | 1.8                                          |
| RE-Y(St)YSWAY-TiMF 16T1.5 | 16x3x1.5                              | 0.45                                    | 1.6                                          | 28.4                                                      | 1.6                                   | 1.9                                          |
| RE-Y(St)YSWAY-TiMF 20T1.5 | 20x3x1.5                              | 0.45                                    | 1.7                                          | 31.6                                                      | 1.6                                   | 2.0                                          |
| RE-Y(St)YSWAY-TiMF 24T1.5 | 24x3x1.5                              | 0.45                                    | 1.8                                          | 34.4                                                      | 1.6                                   | 2.1                                          |

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



Rated Voltage



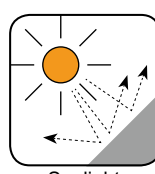
Standard



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



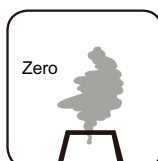
Low Toxicity  
NES 02-713/NF C 20-454



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