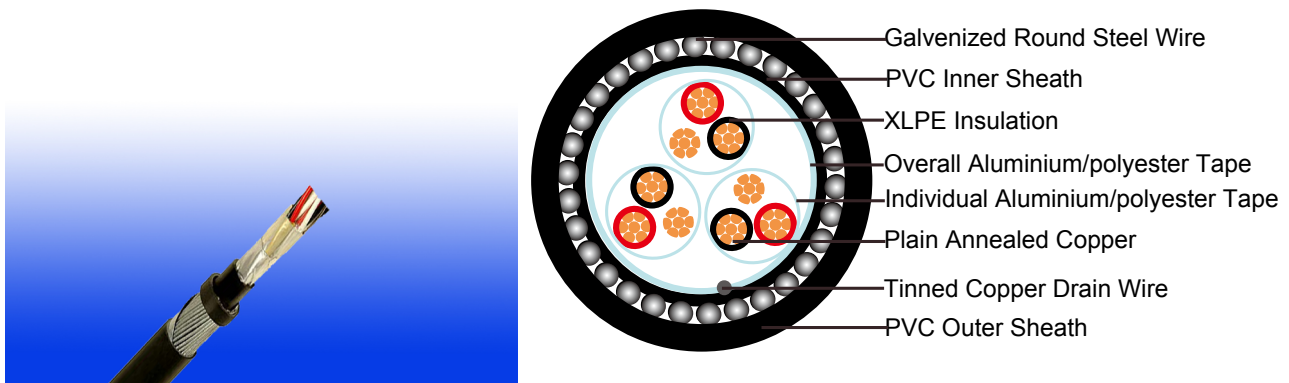




XLPE Insulated, PVC Sheathed, Individual & Overall Screened, Armoured Instrumentation Cables (Multitriples)

RE-2X(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Note: Asterisk * denotes superseded standard, *** denotes optional.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: Extruded cross-linked XLPE compound as per EN 50290-2-29.

Triple: Three conductors twisted to form a triple.

Individual Screen: Aluminium/polyester tape is applied over each triple metallic side down in contact with tinned copper drain wire, 0.5mm².

Lay-up: TiMF laid up in layers of optimum pitch.

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

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 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.)	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-2X(St)YSWAY-TiMF					
	No. of Triples x3xCross Section	Nominal Insulation Thick- ness	Nominal Inner Sheath Thick- ness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thick- ness
	No.x3xmm ²	mm	mm	mm	mm	mm
0.5mm ² , Multi-stripe						
RE-2X(St)YSWAY-TiMF 2T0.5	2x3x0.5	0.35	1.0	9.7	0.9	1.4
RE-2X(St)YSWAY-TiMF 4T0.5	4x3x0.5	0.35	1.0	11.1	0.9	1.4
RE-2X(St)YSWAY-TiMF 5T0.5	5x3x0.5	0.35	1.1	12.4	0.9	1.5
RE-2X(St)YSWAY-TiMF 6T0.5	6x3x0.5	0.35	1.1	14.0	0.9	1.5
RE-2X(St)YSWAY-TiMF 8T0.5	8x3x0.5	0.35	1.1	14.9	0.9	1.5
RE-2X(St)YSWAY-TiMF 10T0.5	10x3x0.5	0.35	1.2	17.0	1.25	1.6
RE-2X(St)YSWAY-TiMF 12T0.5	12x3x0.5	0.35	1.2	17.6	1.25	1.6
RE-2X(St)YSWAY-TiMF 16T0.5	16x3x0.5	0.35	1.3	20.1	1.25	1.7
RE-2X(St)YSWAY-TiMF 20T0.5	20x3x0.5	0.35	1.4	22.3	1.25	1.7
RE-2X(St)YSWAY-TiMF 24T0.5	24x3x0.5	0.35	1.5	24.4	1.25	1.8
0.75mm ² , Multi-stripe						
RE-2X(St)YSWAY-TiMF 2T0.75	2x3x0.75	0.38	1.0	10.6	0.9	1.4
RE-2X(St)YSWAY-TiMF 4T0.75	4x3x0.75	0.38	1.1	12.4	0.9	1.5
RE-2X(St)YSWAY-TiMF 5T0.75	5x3x0.75	0.38	1.1	13.7	0.9	1.5
RE-2X(St)YSWAY-TiMF 6T0.75	6x3x0.75	0.38	1.1	15.4	0.9	1.5
RE-2X(St)YSWAY-TiMF 8T0.75	8x3x0.75	0.38	1.2	16.7	0.9	1.6
RE-2X(St)YSWAY-TiMF 10T0.75	10x3x0.75	0.38	1.3	19.0	1.25	1.6

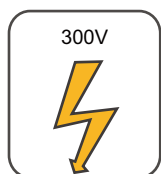


Caledonian Cable Code	RE-2X(St)YSWAY-TiMF					
	No. of Triples x3xCross Section	Nominal Insulation Thick- ness	Nominal Inner Sheath Thick- ness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thick- ness
	No.x3xmm ²	mm	mm	mm	mm	mm
RE-2X(St)YSWAY-TiMF 12T0.75	12x3x0.75	0.38	1.3	19.7	1.25	1.7
RE-2X(St)YSWAY-TiMF 16T0.75	16x3x0.75	0.38	1.4	22.5	1.25	1.7
RE-2X(St)YSWAY-TiMF 20T0.75	20x3x0.75	0.38	1.5	24.9	1.25	1.8
RE-2X(St)YSWAY-TiMF 24T0.75	24x3x0.75	0.38	1.6	27.2	1.25	1.9
1.0mm ² , Multi-stripe						
RE-2X(St)YSWAY-TiMF 2T1.0	2x3x1.0	0.4	1.0	11.5	0.9	1.4
RE-2X(St)YSWAY-TiMF 4T1.0	4x3x1.0	0.4	1.1	13.4	0.9	1.5
RE-2X(St)YSWAY-TiMF 5T1.0	5x3x1.0	0.4	1.1	14.8	0.9	1.5
RE-2X(St)YSWAY-TiMF 6T1.0	6x3x1.0	0.4	1.2	16.9	0.9	1.5
RE-2X(St)YSWAY-TiMF 8T1.0	8x3x1.0	0.4	1.2	18.1	1.25	1.6
RE-2X(St)YSWAY-TiMF 10T1.0	10x3x1.0	0.4	1.3	20.7	1.25	1.7
RE-2X(St)YSWAY-TiMF 12T1.0	12x3x1.0	0.4	1.3	21.4	1.25	1.7
RE-2X(St)YSWAY-TiMF 16T1.0	16x3x1.0	0.4	1.4	24.4	1.25	1.7
RE-2X(St)YSWAY-TiMF 20T1.0	20x3x1.0	0.4	1.5	27.1	1.25	1.8
RE-2X(St)YSWAY-TiMF 24T1.0	24x3x1.0	0.4	1.6	29.6	1.6	1.9
1.3mm ² , Multi-stripe						
RE-2X(St)YSWAY-TiMF 2T1.3	2x3x1.3	0.45	1.1	12.8	0.9	1.5
RE-2X(St)YSWAY-TiMF 4T1.3	4x3x1.3	0.45	1.1	14.7	0.9	1.5
RE-2X(St)YSWAY-TiMF 5T1.3	5x3x1.3	0.45	1.2	16.5	0.9	1.6
RE-2X(St)YSWAY-TiMF 6T1.3	6x3x1.3	0.45	1.3	18.8	1.25	1.6
RE-2X(St)YSWAY-TiMF 8T1.3	8x3x1.3	0.45	1.3	20.1	1.25	1.7
RE-2X(St)YSWAY-TiMF 10T1.3	10x3x1.3	0.45	1.4	23.0	1.25	1.8
RE-2X(St)YSWAY-TiMF 12T1.3	12x3x1.3	0.45	1.5	24.0	1.25	1.8
RE-2X(St)YSWAY-TiMF 16T1.3	16x3x1.3	0.45	1.6	27.4	1.25	1.9
RE-2X(St)YSWAY-TiMF 20T1.3	20x3x1.3	0.45	1.7	30.4	1.6	2.0
RE-2X(St)YSWAY-TiMF 24T1.3	24x3x1.3	0.45	1.8	33.1	1.6	2.0
1.5mm ² , Multi-stripe						
RE-2X(St)YSWAY-TiMF 2T1.5	2x3x1.5	0.45	1.1	13.2	0.9	1.5



Caledonian Cable Code	RE-2X(St)YSWAY-TiMF					
	No. of Triples x3xCross Section	Nominal Insulation Thick- ness	Nominal Inner Sheath Thick- ness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thick- ness
	No.x3xmm ²	mm	mm	mm	mm	mm
RE-2X(St)YSWAY-TiMF 4T1.5	4x3x1.5	0.45	1.2	15.4	0.9	1.5
RE-2X(St)YSWAY-TiMF 5T1.5	5x3x1.5	0.45	1.2	17.1	1.25	1.6
RE-2X(St)YSWAY-TiMF 6T1.5	6x3x1.5	0.45	1.3	19.5	1.25	1.6
RE-2X(St)YSWAY-TiMF 8T1.5	8x3x1.5	0.45	1.4	21.1	1.25	1.7
RE-2X(St)YSWAY-TiMF 10T1.5	10x3x1.5	0.45	1.5	24.1	1.25	1.8
RE-2X(St)YSWAY-TiMF 12T1.5	12x3x1.5	0.45	1.5	24.9	1.25	1.8
RE-2X(St)YSWAY-TiMF 16T1.5	16x3x1.5	0.45	1.6	28.4	1.6	1.9
RE-2X(St)YSWAY-TiMF 20T1.5	20x3x1.5	0.45	1.7	31.6	1.6	2.0
RE-2X(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



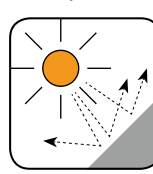
Standard



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



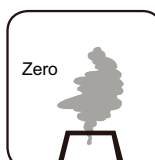
Low Toxicity
NES 02-713/NF C 20-454



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