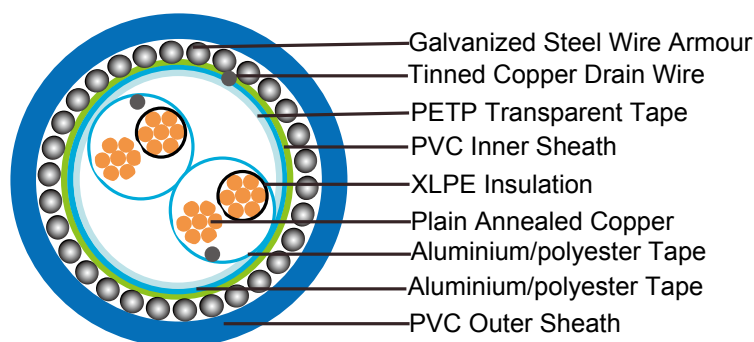




XLPE Insulated, PVC Sheathed, Individual and Overall Screened & Armoured Instrumentation Cables (Multipair)

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Note: Asterisk * denotes superseded standard, *** denotes optional.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

Pairs: Two insulated conductors uniformly twisted together with a specified length lay.

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

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.

Inner Sheath: PVC compound as per EN 50290-2-22.

Armouring: Galvanized steel wire armour.

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): -20°C – +50°C

Minimum Bending Radius: 10 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				



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 PiMF					
	No. of Pairs x2xCross 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.x2xmm ²	mm ²	mm	mm	mm	mm
0.5mm ² , Multipair						
RE-2X(St)YSWAY PiMF 2P0.5	2x2x0.5	0.35	0.9	8.7	0.9	1.4
RE-2X(St)YSWAY PiMF 4P0.5	4x2x0.5	0.35	1.0	10.2	0.9	1.4
RE-2X(St)YSWAY PiMF 5P0.5	5x2x0.5	0.35	1.0	11.2	0.9	1.4
RE-2X(St)YSWAY PiMF 6P0.5	6x2x0.5	0.35	1.0	12.1	0.9	1.5
RE-2X(St)YSWAY PiMF 8P0.5	8x2x0.5	0.35	1.1	13.1	0.9	1.5
RE-2X(St)YSWAY PiMF 10P0.5	10x2x0.5	0.35	1.2	15.1	0.9	1.6
RE-2X(St)YSWAY PiMF 12P0.5	12x2x0.5	0.35	1.2	15.7	0.9	1.6
RE-2X(St)YSWAY PiMF 16P0.5	16x2x0.5	0.35	1.2	17.8	1.25	1.6
RE-2X(St)YSWAY PiMF 20P0.5	20x2x0.5	0.35	1.3	19.7	1.25	1.7
RE-2X(St)YSWAY PiMF 24P0.5	24x2x0.5	0.35	1.4	21.5	1.25	1.7
0.75mm ² , Multipair						
RE-2X(St)YSWAY PiMF 2P0.75	2x2x0.75	0.38	1.0	9.7	0.9	1.4
RE-2X(St)YSWAY PiMF 4P0.75	4x2x0.75	0.38	1.0	11.2	0.9	1.4
RE-2X(St)YSWAY PiMF 5P0.75	5x2x0.75	0.38	1.1	12.5	0.9	1.5
RE-2X(St)YSWAY PiMF 6P0.75	6x2x0.75	0.38	1.1	13.6	0.9	1.5
RE-2X(St)YSWAY PiMF 8P0.75	8x2x0.75	0.38	1.1	14.4	0.9	1.5
RE-2X(St)YSWAY PiMF 10P0.75	10x2x0.75	0.38	1.2	16.6	1.25	1.6
RE-2X(St)YSWAY PiMF 12P0.75	12x2x0.75	0.38	1.2	17.4	1.25	1.6
RE-2X(St)YSWAY PiMF 16P0.75	16x2x0.75	0.38	1.3	19.8	1.25	1.7

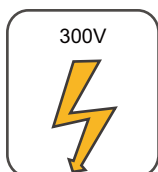


Caledonian Cable Code	RE-2X(St)YSWAY PiMF					
	No. of Pairs x2xCross Section	Nominal Insulation Thick- ness	Nominal Inner Sheath Thick- ness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thick- ness
	No.x2xmm ²	mm ²	mm	mm	mm	mm
RE-2X(St)YSWAY PiMF 20P0.75	20x2x0.75	0.38	1.4	22.0	1.25	1.7
RE-2X(St)YSWAY PiMF 24P0.75	24x2x0.75	0.38	1.5	24.0	1.25	1.8
1.0mm ² , Multipair						
RE-2X(St)YSWAY PiMF 2P1.0	2x2x1.0	0.4	1.0	10.4	0.9	1.4
RE-2X(St)YSWAY PiMF 4P1.0	4x2x1.0	0.4	1.0	12.1	0.9	1.4
RE-2X(St)YSWAY PiMF 5P1.0	5x2x1.0	0.4	1.1	13.5	0.9	1.5
RE-2X(St)YSWAY PiMF 6P1.0	6x2x1.0	0.4	1.1	14.7	0.9	1.5
RE-2X(St)YSWAY PiMF 8P1.0	8x2x1.0	0.4	1.2	15.8	0.9	1.5
RE-2X(St)YSWAY PiMF 10P1.0	10x2x1.0	0.4	1.2	18.0	1.25	1.6
RE-2X(St)YSWAY PiMF 12P1.0	12x2x1.0	0.4	1.3	19.0	1.25	1.7
RE-2X(St)YSWAY PiMF 16P1.0	16x2x1.0	0.4	1.3	21.5	1.25	1.7
RE-2X(St)YSWAY PiMF 20P1.0	20x2x1.0	0.4	1.4	23.9	1.25	1.7
RE-2X(St)YSWAY PiMF 24P1.0	24x2x1.0	0.4	1.5	26.1	1.25	1.8
1.3mm ² , Multipair						
RE-2X(St)YSWAY PiMF 2P1.3	2x2x1.3	0.45	1.0	11.4	0.9	1.4
RE-2X(St)YSWAY PiMF 4P1.3	4x2x1.3	0.45	1.1	13.4	0.9	1.5
RE-2X(St)YSWAY PiMF 5P1.3	5x2x1.3	0.45	1.1	14.8	0.9	1.5
RE-2X(St)YSWAY PiMF 6P1.3	6x2x1.3	0.45	1.2	16.3	0.9	1.6
RE-2X(St)YSWAY PiMF 8P1.3	8x2x1.3	0.45	1.3	17.6	1.25	1.6
RE-2X(St)YSWAY PiMF 10P1.3	10x2x1.3	0.45	1.3	20.0	1.25	1.7
RE-2X(St)YSWAY PiMF 12P1.3	12x2x1.3	0.45	1.4	21.1	1.25	1.7
RE-2X(St)YSWAY PiMF 16P1.3	16x2x1.3	0.45	1.5	24.1	1.25	1.8
RE-2X(St)YSWAY PiMF 20P1.3	20x2x1.3	0.45	1.6	26.8	1.25	1.9
RE-2X(St)YSWAY PiMF 24P1.3	24x2x1.3	0.45	1.7	29.2	1.25	2.0
1.5mm ² , Multipair						
RE-2X(St)YSWAY PiMF 2P1.5	2x2x1.5	0.45	1.0	11.8	0.9	1.5
RE-2X(St)YSWAY PiMF 4P1.5	4x2x1.5	0.45	1.1	13.9	0.9	1.5



Caledonian Cable Code	RE-2X(St)YSWAY PiMF					
	No. of Pairs x2xCross 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.x2xmm ²	mm ²	mm	mm	mm	mm
RE-2X(St)YSWAY PiMF 5P1.5	5x2x1.5	0.45	1.2	15.5	0.9	1.5
RE-2X(St)YSWAY PiMF 6P1.5	6x2x1.5	0.45	1.2	16.9	1.25	1.6
RE-2X(St)YSWAY PiMF 8P1.5	8x2x1.5	0.45	1.3	18.2	1.25	1.7
RE-2X(St)YSWAY PiMF 10P1.5	10x2x1.5	0.45	1.4	21.0	1.25	1.7
RE-2X(St)YSWAY PiMF 12P1.5	12x2x1.5	0.45	1.4	21.9	1.25	1.7
RE-2X(St)YSWAY PiMF 16P1.5	16x2x1.5	0.45	1.5	25.1	1.25	1.8
RE-2X(St)YSWAY PiMF 20P1.5	20x2x1.5	0.45	1.6	27.8	1.25	1.9
RE-2X(St)YSWAY PiMF 24P1.5	24x2x1.5	0.45	1.7	30.4	1.25	2.0

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



Rated Voltage



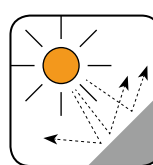
Standard



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



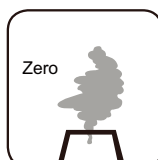
Low Toxicity
NES 02-713/NF C 20-454



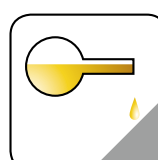
Low Corrosivity
IEC60754-2
EN50267-2-2/3
NF C 32-074



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