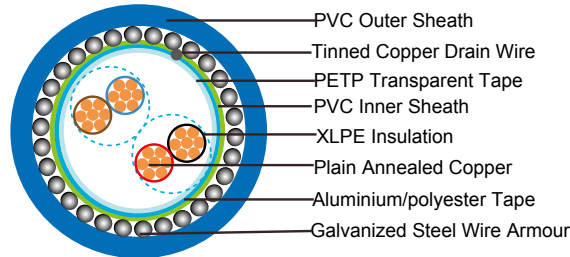


Flame Retardant Overall Screened, Armoured Instrumentation Cables (Multipair) RE-2X(St)YSWAY



APPLICATION

The armoured XLPE versions are generally used when the risk of mechanical damage is increased. The galvanized steel wire armour provides excellent protection. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services.

STANDARDS

Basic design to BS EN 50288-7 (formerly BS 5308)

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	BS EN 60332-1-2
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VOLTAGE RATING

300V, 500V

CABLE CONSTRUCTION

Conductor: Plain or metal coated copper wire, solid, stranded or flexible according to IEC 60228 class 1, 2 and 5.

Insulation: Extruded XLPE compound according to EN 50290-2-29. PVC, PE, PP compound can be offered as options.

Pairs: Two insulated conductors uniformly twisted together with a lay not exceeding 100mm ($\leq 1.5\text{mm}^2$) or 150mm (for 2.5mm^2).

Binder Tape: PETP transparent tape.

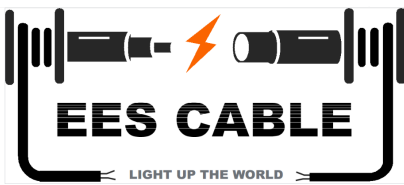
Overall Screen: Aluminium/polyester tape is applied over the laid up pairs with metallic side down in contact with tinned copper drain wire, 0.5mm^2 . Copper braid screen or aluminium/polyester tape combined with copper braid screen can be offered as option.

Inner Sheath: Thermoplastic PVC compound according to EN 50290-2-22.

Armouring: Galvanized steel wire armour.

Outer Sheath: Thermoplastic PVC compound according to EN 50290-2-22.

Outer Sheath Option: 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 Colour: Colours and/or additional ring markings and/or symbols achieved by the use of coloured insulation or by a coloured surface using extrusion, printing or painting.

Outer Sheath: Black. Other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation: -30°C - +90°C

Temperature range during installation: -5°C - +50°C

Maximum short circuit temperature (5 Seconds): 250°C

Minimum bending radius: 10 x Overall Diameter

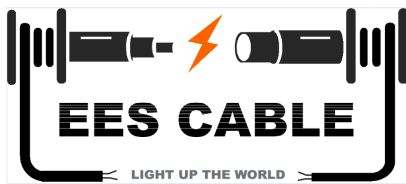
ELECTRICAL PROPERTIES

300V

Conductor Area Size	mm ²	0.5	0.75	1.0	1.5
Insulation Thickness (Nominal)	mm	0.4	0.4	0.4	0.5
Insulation Thickness (Minimum)	mm	0.26	0.26	0.26	0.35
Conductor Resistance (20°C)	ohm/km	36.7	25.0	18.5	12.3
Minimum Insulation Resistance (20°C)	Mohm/km	1000			
Maximum Mutual Capacitance	nf/km	250			
Capacitance Unbalance	pf/500m	500			
Maximum L/R (Ratio)	µH/Ω	25	25	25	40
Operating Voltage	V	300			
Dielectric Strength for 1 Minute	AC	V	≥1000		
	DC	V	≥2000		

500V

Conductor Area Size	mm ²	0.5	0.75	1.0	1.5	2.5
Insulation Thickness (Nominal)	mm	0.6	0.6	0.6	0.6	0.7
Insulation Thickness (Minimum)	mm	0.44	0.44	0.44	0.44	0.53
Conductor Resistance (20°C)	ohm/km	36.7	25.0	18.5	12.3	7.4
Minimum Insulation Resistance (20°C)	Mohm/km	1000				
Maximum Mutual Capacitance	nf/km	250				
Capacitance Unbalance	pf/500m	500				
Maximum L/R (Ratio)	µH/Ω	25	25	25	40	60
Operating Voltage	V	500				

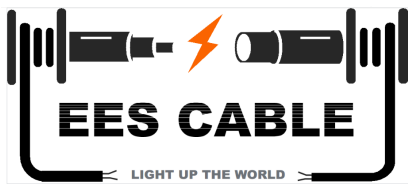


Dielectric Strength for 1 Minute	AC	V	≥2000
	DC	V	≥3000

CONSTRUCTION PARAMETERS

300V

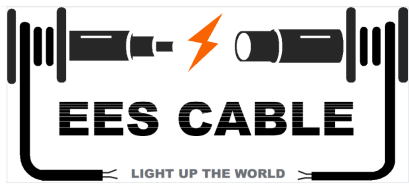
Conductor		RE-2X(St)YSWAY					
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Armour Wire Diameter	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	mm	mm	kg/km
0.5mm ²							
1x2x0.5	2	0.4	0.9	0.9	1.3	9.9	201
2x2x0.5	2	0.4	0.9	0.9	1.4	12.3	289
3x2x0.5	2	0.4	1.0	0.9	1.4	12.9	327
4x2x0.5	2	0.4	1.0	0.9	1.4	13.6	365
5x2x0.5	2	0.4	1.1	0.9	1.5	14.9	423
8x2x0.5	2	0.4	1.1	0.9	1.5	16.6	524
10x2x0.5	2	0.4	1.1	0.9	1.5	18.5	618
12x2x0.5	2	0.4	1.2	0.9	1.5	19.2	676
16x2x0.5	2	0.4	1.2	1.25	1.6	21.6	927
20x2x0.5	2	0.4	1.3	1.25	1.6	23.1	1055
24x2x0.5	2	0.4	1.3	1.25	1.7	25.7	1227
0.75mm ²							
1x2x0.75	2	0.4	0.9	0.9	1.3	10.2	217
2x2x0.75	2	0.4	1.0	0.9	1.4	13.1	327
3x2x0.75	2	0.4	1.0	0.9	1.4	13.5	363
4x2x0.75	2	0.4	1.1	0.9	1.5	14.8	426
5x2x0.75	2	0.4	1.1	0.9	1.5	15.7	476
8x2x0.75	2	0.4	1.1	0.9	1.5	17.5	598
10x2x0.75	2	0.4	1.2	1.25	1.6	20.8	856
12x2x0.75	2	0.4	1.2	1.25	1.6	21.3	917
16x2x0.75	2	0.4	1.3	1.25	1.6	23.2	1085
20x2x0.75	2	0.4	1.4	1.25	1.7	25.0	1254
24x2x0.75	2	0.4	1.4	1.25	1.8	27.9	1460
1.0mm ²							
1x2x1.0	2	0.4	0.9	0.9	1.3	10.6	237
2x2x1.0	2	0.4	1.0	0.9	1.4	13.8	364
3x2x1.0	2	0.4	1.1	0.9	1.5	14.7	425
4x2x1.0	2	0.4	1.1	0.9	1.5	15.6	482
5x2x1.0	2	0.4	1.1	0.9	1.5	16.6	542
8x2x1.0	2	0.4	1.2	0.9	1.5	18.9	706
10x2x1.0	2	0.4	1.2	1.25	1.6	22.2	986
12x2x1.0	2	0.4	1.3	1.25	1.6	22.9	1079
16x2x1.0	2	0.4	1.4	1.25	1.7	25.2	1297
20x2x1.0	2	0.4	1.4	1.25	1.8	27.0	1488
24x2x1.0	2	0.4	1.5	1.25	1.8	30.2	1745
1.5mm ²							



Conductor		RE-2X(St)YSWAY					
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Armour Wire Diameter	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	mm	mm	kg/km
1x2x1.5	2	0.5	0.9	0.9	1.4	11.8	284
2x2x1.5	2	0.5	1.1	0.9	1.5	15.7	455
3x2x1.5	2	0.5	1.1	0.9	1.5	16.3	518
4x2x1.5	2	0.5	1.2	0.9	1.6	17.9	614
5x2x1.5	2	0.5	1.2	0.9	1.6	19.1	696
8x2x1.5	2	0.5	1.3	1.25	1.6	22.5	1057
10x2x1.5	2	0.5	1.4	1.25	1.7	25.9	1286
12x2x1.5	2	0.5	1.4	1.25	1.7	26.5	1395
16x2x1.5	2	0.5	1.5	1.25	1.8	29.3	1689
20x2x1.5	2	0.5	1.6	1.6	1.9	32.3	2172
24x2x1.5	2	0.5	1.7	1.6	1.9	36.1	2544

500V

Conductor		RE-2X(St)YSWAY					
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Armour Wire Diameter	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	mm	mm	kg/km
0.5mm ²							
1x2x0.5	2	0.6	0.9	0.9	1.3	10.7	228
2x2x0.5	2	0.6	1.0	0.9	1.4	13.8	345
3x2x0.5	2	0.6	1.0	0.9	1.4	14.3	380
4x2x0.5	2	0.6	1.1	0.9	1.5	15.6	444
5x2x0.5	2	0.6	1.1	0.9	1.5	16.6	494
8x2x0.5	2	0.6	1.2	0.9	1.5	18.9	628
10x2x0.5	2	0.6	1.2	1.25	1.6	22.3	888
12x2x0.5	2	0.6	1.3	1.25	1.6	23.0	962
16x2x0.5	2	0.6	1.4	1.25	1.7	25.3	1140
20x2x0.5	2	0.6	1.4	1.25	1.7	26.9	1279
24x2x0.5	2	0.6	1.5	1.25	1.8	30.3	1509
0.75mm ²							
1x2x0.75	2	0.6	0.9	0.9	1.3	11.0	245
2x2x0.75	2	0.6	1.0	0.9	1.4	14.4	374
3x2x0.75	2	0.6	1.1	0.9	1.5	15.4	434
4x2x0.75	2	0.6	1.1	0.9	1.5	16.3	489
5x2x0.75	2	0.6	1.2	0.9	1.5	17.6	560
8x2x0.75	2	0.6	1.2	1.25	1.6	21.9	838
10x2x0.75	2	0.6	1.3	1.25	1.6	23.7	1008
12x2x0.75	2	0.6	1.3	1.25	1.7	24.4	1091
16x2x0.75	2	0.6	1.4	1.25	1.7	26.7	1289
20x2x0.75	2	0.6	1.5	1.25	1.8	28.8	1488
24x2x0.75	2	0.6	1.6	1.6	1.9	33.1	1963
1.0mm ²							



Conductor		RE-2X(St)YSWAY					
No. of Pairs X Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Armour Wire Diameter	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Approx. Weight
mm ²		mm	mm	mm	mm	mm	kg/km
1x2x1.0	2	0.6	0.9	0.9	1.3	11.4	265
2x2x1.0	2	0.6	1.0	0.9	1.4	15.1	411
3x2x1.0	2	0.6	1.1	0.9	1.5	16.1	481
4x2x1.0	2	0.6	1.1	0.9	1.5	17.2	547
5x2x1.0	2	0.6	1.2	0.9	1.6	18.8	637
8x2x1.0	2	0.6	1.2	1.25	1.6	21.9	945
10x2x1.0	2	0.6	1.3	1.25	1.7	25.2	1153
12x2x1.0	2	0.6	1.4	1.25	1.7	26.1	1259
16x2x1.0	2	0.6	1.5	1.25	1.8	28.7	1511
20x2x1.0	2	0.6	1.5	1.25	1.8	30.6	1718
24x2x1.0	2	0.6	1.6	1.6	1.9	35.2	2031
1.5mm ²							
1x2x1.5	2	0.6	0.9	0.9	1.3	12.2	298
2x2x1.5	2	0.6	1.1	0.9	1.5	16.4	480
3x2x1.5	2	0.6	1.2	0.9	1.5	17.3	558
4x2x1.5	2	0.6	1.2	0.9	1.6	18.6	648
5x2x1.5	2	0.6	1.3	1.25	1.6	20.9	871
8x2x1.5	2	0.6	1.3	1.25	1.7	23.8	1124
10x2x1.5	2	0.6	1.4	1.25	1.8	27.4	1373
12x2x1.5	2	0.6	1.5	1.25	1.8	28.3	1507
16x2x1.5	2	0.6	1.6	1.25	1.9	31.2	1821
20x2x1.5	2	0.6	1.7	1.6	2.0	34.3	2335
24x2x1.5	2	0.6	1.8	1.6	2.0	38.5	2734
2.5mm ²							
1x2x2.5	2	0.7	1.0	0.9	1.4	13.6	407
2x2x2.5	2	0.7	1.2	0.9	1.5	18.6	626
3x2x2.5	2	0.7	1.2	0.9	1.6	19.6	733
4x2x2.5	2	0.7	1.3	1.25	1.6	22.0	996
5x2x2.5	2	0.7	1.4	1.25	1.7	24.0	1160
8x2x2.5	2	0.7	1.4	1.25	1.7	27.3	1508
10x2x2.5	2	0.7	1.6	1.6	1.9	32.8	2091
12x2x2.5	2	0.7	1.6	1.6	1.9	33.7	2272
16x2x2.5	2	0.7	1.7	1.6	2.0	37.1	2746
20x2x2.5	2	0.7	1.9	1.6	2.1	40.2	3325
24x2x2.5	2	0.7	2.0	1.6	2.2	45.4	3809