



Mica tape + XLPE Insulation, Al/PET Individual & Overall Screen, LSZH Inner Sheath, Galvanized Steel Wire Armoring, LSZH Sheath Instrumentation Cable

### Application

These cables used for connecting instruments and control systems for analogue or digital signal transmission for indoor and outdoor applications. These cables shall not be connected directly to mains electricity supply or other low impedance sources, since they are not designed to be used for power supply. Recommended for use where circuit integrity is required in case of fire.

### Construction

- CONDUCTOR** :Electrolytic, stranded, annealed plain copper wires to IEC 60228 Class 2 (Class 1 or Class 5 and / or tinned on request)
- INSULATION** :Mica tape + XLPE compound to EN50290-2-29 Black / White twisted pairs with numbered cores or Black / White / Red twisted triads with numbered cores
- BINDER TAPE** :Polyester foil on each stranded pairs or twisted triad
- INDIVIDUAL SCREEN** :Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
- BINDER TAPE** :Polyester foil on overall cable core formed by stranded pairs
- COLLECTIVE SCREEN** :Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
- INNER SHEATH** :LSZH compound to EN50290-2-27
- ARMOUR** :Round galvanised steel wires to EN 10257-1
- OUTER SHEATH** :Halogen free flame retardant LSZH compound to EN50290-2-27 Orange or Red for circuit integrity Blue for intrinsically safe cable Black for UV resistant and/or non-intrinsically safe cable

### Electrical Properties

- RATED VOLTAGE** :500 V a.c.
- AC TEST VOLTAGE** :2000 V x 1 min. (core:core / core: screen)
- WORKING TEMPERATURE** :-40°C / + 90°C (during operation) – 5 °C / + 50°C (during installation)
- MIN BENDING RADIUS (FIXED)** :10 x D
- CONSTRUCTION** :EN 50288-7
- MATERIAL TYPES & TESTS** :EN 50290-2 series
- ELECTRICAL & MECHANICAL TESTS** :EN 50289 series
- FLAME RETARDANT** :IEC 60332 / 1-2, IEC 60332 / 3-24 Cat C
- FIRE RESISTANCE** :IEC 60331 / 21, IEC 60331 / 1-2
- HALOGEN CONTENT** :IEC 60754 / 1-2
- SMOKE EMISSION** :IEC 61034 / 1-2

### Electrical Characteristics

Conductor size (Class 2)	nom.	mm <sup>2</sup>	0.5	0.75	1	1.3	1.5	2.5
Conductor resistance	max.	Ω/km	36.7	25	18.5	14.2	12.3	7.6
Insulation resistance	min.	MΩxkm	5000					
Mutual Capacitance	max.	nF/km	150					
Inductance	max.	mH/km	1					
L/R ratio	max.	μH/Ω	25	25	25	40	40	60
(*) At 20 °C								

**Parameter**
**RE-2X(St)HSWAH-PIMF..CI Cable**

Cross Sections (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x0,5	16.5	421
4x2x0,5	18.7	533
5x2x0,5	20.7	710
6x2x0,5	22.3	790
8x2x0,5	24.4	917
10x2x0,5	27.2	1072
12x2x0,5	28	1150
16x2x0,5	30.7	1354
20x2x0,5	35	1805
24x2x0,5	38.3	2065
2x2x0,75	17.5	466
4x2x0,75	19.6	582
5x2x0,75	21.9	790
6x2x0,75	23.4	868
8x2x0,75	25.9	1020
10x2x0,75	28.9	1190
12x2x0,75	29.7	1280
16x2x0,75	33.3	1697
20x2x0,75	37.1	2025
24x2x0,75	40.7	2314
2x2x1	17.8	483
4x2x1	20.7	725
5x2x1	22.4	828
6x2x1	24	913
8x2x1	26.5	1073
10x2x1	29.6	1264
12x2x1	30.5	1364
16x2x1	34.6	1860
20x2x1	38.1	2162
24x2x1	41.8	2471
2x2x1,3	18.8	526
4x2x1,3	22.1	808
5x2x1,3	23.7	910
6x2x1,3	25.6	1015

Cross Sections (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
8x2x1,3	28.1	1190
10x2x1,3	32.2	1590
12x2x1,3	33.3	1717
16x2x1,3	37	2090
20x2x1,3	40.8	2427
24x2x1,3	45.6	3096
2x2x1,5	18.9	534
4x2x1,5	22.3	825
5x2x1,5	23.9	930
6x2x1,5	25.8	1050
8x2x1,5	28.4	1233
10x2x1,5	32.7	1647
12x2x1,5	33.7	1783
16x2x1,5	37.4	2153
20x2x1,5	41.2	2522
24x2x1,5	46.5	3257
2x2x2,5	22.4	790
4x2x2,5	25.6	1035
5x2x2,5	27.6	1178
6x2x2,5	29.9	1337
8x2x2,5	34	1800
10x2x2,5	38.5	2154
12x2x2,5	39.6	2336
16x2x2,5	44.6	3106
20x2x2,5	49.7	3690
24x2x2,5	55.9	4740

**RE-2X(St)HSWAH-PIMF..CI Cable**

Cross Sections (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x3x0,5	17.7	475
4x3x0,5	19.9	604
5x3x0,5	22.2	810
6x3x0,5	23.8	903
8x3x0,5	26.3	1061
10x3x0,5	29.3	1240
12x3x0,5	30.2	1336
16x3x0,5	33.8	1774
20x3x0,5	37.7	2117
24x3x0,5	41.4	2421
2x3x0,75	18.6	518
4x3x0,75	21.9	805
5x3x0,75	23.5	897
6x3x0,75	25.4	1012
8x3x0,75	27.9	1187

Cross Sections (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
10x3x0,75	31.2	1396
12x3x0,75	33	1712
16x3x0,75	36.7	2067
20x3x0,75	40.4	2403
24x3x0,75	45.2	3062
2x3x1	19	540
4x3x1	22.4	848
5x3x1	24	947
6x3x1	25.9	1068
8x3x1	28.6	1260
10x3x1	32.9	1695
12x3x1	33.8	1820
16x3x1	37.5	2218
20x3x1	41.4	2584
24x3x1	46.7	3330
2x3x1,3	19.8	588
4x3x1,3	23.3	921
5x3x1,3	25.2	1053
6x3x1,3	27.1	1177
8x3x1,3	30.1	1404
10x3x1,3	34.8	1900
12x3x1,3	35.8	2062
16x3x1,3	39.3	2460
20x3x1,3	44.4	3200
24x3x1,3	49.2	3720
2x3x1,5	20.8	717
4x3x1,5	23.7	958
5x3x1,5	25.7	1097
6x3x1,5	27.6	1226
8x3x1,5	30.7	1476
10x3x1,5	35.5	1980
12x3x1,5	36.7	2172
16x3x1,5	40.4	2598
20x3x1,5	45.4	3350
24x3x1,5	50.3	3920
2x3x2,5	23.9	900
4x3x2,5	27.3	1215
5x3x2,5	29.7	1404
6x3x2,5	33	1795
8x3x2,5	37.1	2200
10x3x2,5	41.6	2594
12x3x2,5	43.6	3132
16x3x2,5	48.6	3850

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Cross Sections (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
20x3x2,5	53.7	4523
24x3x2,5	60.8	5805