



PE Insulation, Al/PET Individual & Overall Screen, 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.

Construction

CONDUCTOR :Electrolytic, stranded, annealed plain copper wires to IEC 60228 Class 2 (Class 1 or Class 5 and / or tinned on request)

INSULATION :PE-Polyethylene compound to EN50290-2-23 Black / White twisted pairs with numbered cores or Black / White / Red twisted triads with numbered cores

BINDER TAPE :Polyester foil on each twisted pair or each 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

OUTER SHEATH :Halogen free flame retardant LSZH compound to EN50290-2-27 Blue for intrinsically safe cable Black for UV resistant and/or non-intrinsically safe cable Gray for indoor applications Other colours on request

Electrical Properties

RATED VOLTAGE :500 V a.c.

AC TEST VOLTAGE :2000 V x 1 min. (core:core / core: screen)

WORKING TEMPERATURE :-30°C / + 70°C (during operation) – 5 °C / + 50°C (during installation)

MIN BENDING RADIUS (FIXED) :7,5 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

HALOGEN CONTENT :IEC 60754 / 1-2

SMOKE EMISSION :IEC 61034 / 1-2

Electrical Characteristics

Conductor size (Class 2)	nom.	mm ²	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					

Conductor size (Class 2)	nom.	mm ²	0.5	0.75	1	1.3	1.5	2.5
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-2Y(St)H PIMF Cable

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x0,5	10.1	96
4x2x0,5	11.7	145
5x2x0,5	13	177
6x2x0,5	14.1	205
8x2x0,5	16	263
10x2x0,5	18.2	325
12x2x0,5	18.8	370
16x2x0,5	21.1	474
20x2x0,5	23.7	583
24x2x0,5	26.4	696
2x2x0,75	11.2	115
4x2x0,75	13.2	184
5x2x0,75	14.4	217
6x2x0,75	16	260
8x2x0,75	18.1	322
10x2x0,75	20.6	410
12x2x0,75	21.3	468
16x2x0,75	24	528
20x2x0,75	26.8	741
24x2x0,75	30	884
2x2x1	11.6	126
4x2x1	13.7	204
5x2x1	15	242
6x2x1	16.5	290
8x2x1	18.7	372
10x2x1	21.4	488
12x2x1	22.1	526
16x2x1	24.7	678
20x2x1	27.8	836
24x2x1	31	998
2x2x1,3	12.5	150
4x2x1,3	14.5	237
5x2x1,3	16.1	291
6x2x1,3	17.6	340
8x2x1,3	20	438
10x2x1,3	23	543

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
12x2x1,3	23.8	635
16x2x1,3	26.7	820
20x2x1,3	30	1010
24x2x1,3	33.4	1205
2x2x1,5	13	160
4x2x1,5	15.2	262
5x2x1,5	16.6	312
6x2x1,5	18.3	372
8x2x1,5	20.8	481
10x2x1,5	23.8	595
12x2x1,5	24.6	684
16x2x1,5	27.5	883
20x2x1,5	30.9	1090
24x2x1,5	34.7	1317
2x2x2,5	15.3	221
4x2x2,5	18.1	370
5x2x2,5	19.8	443
6x2x2,5	21.8	528
8x2x2,5	24.8	684
10x2x2,5	28.4	848
12x2x2,5	29.6	993
16x2x2,5	33.1	1284
20x2x2,5	37.4	1602
24x2x2,5	41.7	1910

RE-2Y(St)H TIMF Cable

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x3x0,5	11	115
4x3x0,5	13	186
5x3x0,5	14.2	220
6x3x0,5	15.6	262
8x3x0,5	17.5	328
10x3x0,5	20.1	408
12x3x0,5	20.9	476
16x3x0,5	23.4	612
20x3x0,5	26.3	754
24x3x0,5	29.3	900
2x3x0,75	12.1	140
4x3x0,75	14.4	230
5x3x0,75	15.9	282
6x3x0,75	17.3	327
8x3x0,75	19.7	423
10x3x0,75	22.5	524
12x3x0,75	23.5	613

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
16x3x0,75	26.3	790
20x3x0,75	29.5	973
24x3x0,75	32.9	1160
2x3x1	12.7	160
4x3x1	14.8	258
5x3x1	16.4	317
6x3x1	18.1	378
8x3x1	20.3	478
10x3x1	23.5	606
12x3x1	24.3	696
16x3x1	27.2	900
20x3x1	30.5	1110
24x3x1	34.2	1342
2x3x1,3	13.5	187
4x3x1,3	15.9	314
5x3x1,3	17.4	377
6x3x1,3	19.2	450
8x3x1,3	21.8	583
10x3x1,3	25	724
12x3x1,3	26	848
16x3x1,3	29.1	1100
20x3x1,3	32.7	1356
24x3x1,3	36.5	1620
2x3x1,5	14	200
4x3x1,5	16.6	340
5x3x1,5	18.4	418
6x3x1,5	20.1	488
8x3x1,5	22.8	633
10x3x1,5	26.3	798
12x3x1,5	27.2	922
16x3x1,5	30.5	1196
20x3x1,5	34.4	1493
24x3x1,5	38.4	1782
2x3x2,5	16.7	285
4x3x2,5	19.8	490
5x3x2,5	21.9	603
6x3x2,5	24.1	718
8x3x2,5	27.4	933
10x3x2,5	31.6	1172
12x3x2,5	32.7	1360
16x3x2,5	36.8	1783
20x3x2,5	41.3	2200
24x3x2,5	46.3	2650

