

EN 50288-7 (500 V)



## CABLE STRUCTURE

<b>Conductor</b>	Electrolytic, stranded, annealed plain copper wires to IEC 60228 Class 2 (Class 1 or Class 5 and / or tinned on request)
<b>Insulation</b>	Mica tape + XLPE compound to EN50290-2-29 Black / White twisted pairs with numbered cores
<b>Binder Tape</b>	Polyester foil on overall cable core formed by stranded pairs.
<b>Collective Screen</b>	Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil
<b>Outer Sheath</b>	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

## STANDARDS & MAIN CHARACTERISTICS

<b>Rated Voltage</b>	500 V a.c.
<b>AC Test Voltage</b>	2000 V x 1 min. (core:core / core: screen)
<b>Working Temperature</b>	-40°C / + 90°C (during operation) - 5 °C / + 50°C (during installation)
<b>Min Bending Radius (Fixed)</b>	7,5 x D
<b>Construction</b>	EN 50288-7
<b>Material Types &amp; Tests</b>	EN 50290-2 series
<b>Electrical &amp; Mechanical Tests</b>	EN 50289 series
<b>Flame Retardant</b>	IEC 60332 / 1-2, IEC 60332 / 3-24 Cat C
<b>Fire Resistance</b>	IEC 60331 / 21, IEC 60331 / 1-2
<b>Halogen Content</b>	IEC 60754 / 1-2
<b>Smoke Emission</b>	IEC 61034 / 1-2

### Available Features on Request

- 300 V version
- Multi core / Multi triple / Multi quad
- Hydrocarbon resistant
- Oil resistant
- Hv type reinforced sheath
- Anti termit / anti rodent
- UV resistant

### Application

These cables used for connecting instruments and control systems for analogue or digital signal transmission for indoor 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.

## 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	25,0	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

## PHYSICAL CHARACTERISTICS

Cross Sections (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
1x2x0,5	7,1	54
2x2x0,5	10,4	92
4x2x0,5	12,1	136
5x2x0,5	13,4	166
6x2x0,5	14,6	190
8x2x0,5	16,5	245
10x2x0,5	18,9	300
12x2x0,5	19,5	340
16x2x0,5	21,8	432
20x2x0,5	24,5	530
24x2x0,5	27,4	635
1x2x0,75	7,5	60
2x2x0,75	11,1	107
4x2x0,75	13,1	168
5x2x0,75	14,3	197
6x2x0,75	15,7	235
8x2x0,75	17,9	302
10x2x0,75	20,2	362
12x2x0,75	21,1	420
16x2x0,75	23,6	540
20x2x0,75	26,5	665
24x2x0,75	29,5	790
1x2x1	7,7	68
2x2x1	11,4	117
4x2x1	13,5	187
5x2x1	14,7	220
6x2x1	16,2	264
8x2x1	18,4	340
10x2x1	21,1	420
12x2x1	21,8	480
16x2x1	24,4	615
20x2x1	27,4	760
24x2x1	30,5	905

Cross Sections (mm <sup>2</sup> )	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
1x2x1,3	8,2	76
2x2x1,3	12,2	135
4x2x1,3	14,5	220
5x2x1,3	16,0	270
6x2x1,3	17,5	315
8x2x1,3	19,8	405
10x2x1,3	22,7	500
12x2x1,3	23,7	584
16x2x1,3	26,5	750
20x2x1,3	29,7	925
24x2x1,3	33,2	1104
1x2x1,5	8,3	80
2x2x1,5	12,6	150
4x2x1,5	14,7	236
5x2x1,5	16,2	290
6x2x1,5	17,9	344
8x2x1,5	20,1	434
10x2x1,5	23,0	538
12x2x1,5	24,0	630
16x2x1,5	26,9	812
20x2x1,5	30,2	1000
24x2x1,5	33,7	1194
1x2x2,5	9,9	115
2x2x2,5	14,9	206
4x2x2,5	17,6	345
5x2x2,5	19,5	424
6x2x2,5	21,6	505
8x2x2,5	24,5	655
10x2x2,5	28,0	810
12x2x2,5	29,2	948
16x2x2,5	32,7	1224
20x2x2,5	36,9	1528
24x2x2,5	41,2	1822