

EN 50288-7 (500 V)



CABLE STRUCTURE

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
Binder Tape	Polyester foil on each twisted pair
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 Orange or Red for circuit integrity Blue for intrinsically safe cable Black for UV resistant and/or non-intrinsically safe cable

STANDARDS & MAIN CHARACTERISTICS

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)	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
Fire Resistance	IEC 60331 / 21, IEC 60331 / 1-2
Halogen Content	IEC 60754 / 1-2
Smoke Emission	IEC 61034 / 1-2

Available Features on Request

- 300 V version
- 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 ²	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 ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x0,5	11,9	118
4x2x0,5	14,1	186
5x2x0,5	15,6	227
6x2x0,5	17,0	260
8x2x0,5	19,3	334
10x2x0,5	22,1	414
12x2x0,5	22,9	470
16x2x0,5	25,6	600
20x2x0,5	29,0	755
24x2x0,5	32,3	896
2x2x0,75	12,9	140
4x2x0,75	15,2	220
5x2x0,75	16,6	260
6x2x0,75	18,3	310
8x2x0,75	20,8	400
10x2x0,75	23,8	493
12x2x0,75	24,6	560
16x2x0,75	27,5	717
20x2x0,75	30,9	882
24x2x0,75	34,7	1070
2x2x1	13,2	150
4x2x1	15,6	243
5x2x1	17,1	288
6x2x1	18,9	343
8x2x1	21,4	440
10x2x1	24,5	545
12x2x1	25,4	622
16x2x1	28,4	798
20x2x1	32,1	998
24x2x1	35,8	1190

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x1,3	14,2	172
4x2x1,3	16,8	280
5x2x1,3	18,6	342
6x2x1,3	20,3	397
8x2x1,3	23,0	510
10x2x1,3	26,6	646
12x2x1,3	27,5	738
16x2x1,3	30,8	948
20x2x1,3	34,8	1184
24x2x1,3	38,8	1410
2x2x1,5	14,3	180
4x2x1,5	17,0	296
5x2x1,5	18,8	362
6x2x1,5	20,7	430
8x2x1,5	23,5	554
10x2x1,5	26,9	687
12x2x1,5	27,9	787
16x2x1,5	31,4	1030
20x2x1,5	35,2	1265
24x2x1,5	39,5	1525
2x2x2,5	17,1	250
4x2x2,5	20,3	418
5x2x2,5	22,5	510
6x2x2,5	24,8	608
8x2x2,5	28,2	784
10x2x2,5	32,5	987
12x2x2,5	33,6	1134
16x2x2,5	37,8	1480
20x2x2,5	42,7	1843
24x2x2,5	47,9	2220