

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	PE-Polyethylene compound to EN50290-2-23 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 Blue for intrinsically safe cable Black for UV resistant and/or non-intrinsically safe cable Gray for indoor applications Other colours on request

STANDARDS & MAIN CHARACTERISTICS

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

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 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.

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	10,1	96
4x2x0,5	11,7	145
5x2x0,5	13,0	177
6x2x0,5	14,1	205
8x2x0,5	16,0	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	16,0	260
8x2x0,75	18,1	322
10x2x0,75	20,6	410
12x2x0,75	21,3	468
16x2x0,75	24,0	528
20x2x0,75	26,8	741
24x2x0,75	30,0	884
2x2x1	11,6	126
4x2x1	13,7	204
5x2x1	15,0	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	31,0	998

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x1,3	12,5	150
4x2x1,3	14,5	237
5x2x1,3	16,1	291
6x2x1,3	17,6	340
8x2x1,3	20,0	438
10x2x1,3	23,0	543
12x2x1,3	23,8	635
16x2x1,3	26,7	820
20x2x1,3	30,0	1010
24x2x1,3	33,4	1205
2x2x1,5	13,0	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