

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	PVC compound to EN50290-2-21 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	Flame retardant PVC compound to EN50290-2-22 Blue for intrinsically safe cable Black for UV resistant and/or non-intrinsically safe cable 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

Available Features on Request

- 300 V version
- Hydrocarbon resistant
- Oil resistant
- UV resistant
- Yw 105°C version
- Yv type reinforced sheath
- Anti termit / anti rodent
- LSF (Low Smoke) version

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	100					
Mutual Capacitance	max.	nF/km	250					
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	102
4x2x0,5	11,7	156
5x2x0,5	13,0	190
6x2x0,5	14,1	220
8x2x0,5	16,0	284
10x2x0,5	18,2	351
12x2x0,5	18,8	400
16x2x0,5	21,1	516
20x2x0,5	23,7	636
24x2x0,5	26,4	759
2x2x0,75	11,2	122
4x2x0,75	13,2	197
5x2x0,75	14,4	234
6x2x0,75	16,0	279
8x2x0,75	18,1	360
10x2x0,75	20,6	445
12x2x0,75	21,3	509
16x2x0,75	24,0	567
20x2x0,75	26,8	809
24x2x0,75	30,0	966
2x2x1	11,6	133
4x2x1	13,7	218
5x2x1	15,0	260
6x2x1	16,5	310
8x2x1	18,7	400
10x2x1	21,4	532
12x2x1	22,1	569
16x2x1	24,7	735
20x2x1	27,8	907
24x2x1	31,0	1084

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x1,3	12,5	158
4x2x1,3	14,5	254
5x2x1,3	16,1	311
6x2x1,3	17,6	363
8x2x1,3	20,0	470
10x2x1,3	23,0	584
12x2x1,3	23,8	683
16x2x1,3	26,7	884
20x2x1,3	30,0	1090
24x2x1,3	33,4	1302
2x2x1,5	13,0	168
4x2x1,5	15,2	279
5x2x1,5	16,6	334
6x2x1,5	18,3	398
8x2x1,5	20,8	515
10x2x1,5	23,8	638
12x2x1,5	24,6	735
16x2x1,5	27,5	951
20x2x1,5	30,9	1175
24x2x1,5	34,7	1420
2x2x2,5	15,3	234
4x2x2,5	18,1	395
5x2x2,5	19,8	475
6x2x2,5	21,8	566
8x2x2,5	24,8	734
10x2x2,5	28,4	911
12x2x2,5	29,6	1069
16x2x2,5	33,1	1385
20x2x2,5	37,4	1728
24x2x2,5	41,7	2062