

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 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
Inner Sheath	PVC compound to EN50290-2-22
Armour	Round galvanised steel wires EN 10257-1
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)	10 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
- Yv type reinforced sheath
- Anti termit / anti rodent
- LSF (Low Smoke) version
- Multi core / Multi triple / Multi quad

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)
1x2x0,5	10,7	218
2x2x0,5	13,4	314
4x2x0,5	14,9	384
5x2x0,5	15,8	425
6x2x0,5	16,7	465
8x2x0,5	18,3	540
10x2x0,5	20,7	728
12x2x0,5	21,4	782
16x2x0,5	23,1	900
20x2x0,5	25,3	1041
24x2x0,5	27,3	1163
1x2x0,75	11,5	252
2x2x0,75	14,6	360
4x2x0,75	16,1	443
5x2x0,75	17,1	490
6x2x0,75	18,4	548
8x2x0,75	20,7	748
10x2x0,75	22,9	873
12x2x0,75	23,5	930
16x2x0,75	25,6	1084
20x2x0,75	27,9	1253
24x2x0,75	30,5	1428
1x2x1	11,7	264
2x2x1	14,9	377
4x2x1	16,5	470
5x2x1	17,7	530
6x2x1	18,9	590
8x2x1	21,5	820
10x2x1	23,5	833
12x2x1	24,1	998
16x2x1	26,4	1183
20x2x1	29,0	1384
24x2x1	32,2	1753

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
1x2x1,3	12,1	281
2x2x1,3	15,5	409
4x2x1,3	17,5	532
5x2x1,3	18,6	592
6x2x1,3	19,8	660
8x2x1,3	22,6	910
10x2x1,3	24,8	1050
12x2x1,3	25,7	1152
16x2x1,3	27,9	1354
20x2x1,3	30,7	1587
24x2x1,3	34,7	2060
1x2x1,5	12,3	291
2x2x1,5	15,9	426
4x2x1,5	17,9	556
5x2x1,5	19,1	626
6x2x1,5	21,0	811
8x2x1,5	23,2	955
10x2x1,5	25,7	1126
12x2x1,5	26,4	1213
16x2x1,5	28,9	1444
20x2x1,5	32,3	1868
24x2x1,5	35,7	2190
1x2x2,5	13,5	342
2x2x2,5	18,0	530
4x2x2,5	21,0	822
5x2x2,5	22,6	934
6x2x2,5	24,2	1049
8x2x2,5	26,8	1251
10x2x2,5	29,8	1470
12x2x2,5	30,7	1621
16x2x2,5	34,8	2187
20x2x2,5	38,3	2570
24x2x2,5	42,0	2960