

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
Inner Sheath	PVC compound to EN50290-2-22
Armour	Round galvanised steel wires to 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
- 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	14,7	367
4x2x0,5	16,3	458
5x2x0,5	17,5	522
6x2x0,5	18,7	575
8x2x0,5	21,3	798
10x2x0,5	23,3	920
12x2x0,5	23,9	982
16x2x0,5	26,2	1163
20x2x0,5	28,6	1336
24x2x0,5	32,0	1725
2x2x0,75	15,8	415
4x2x0,75	17,8	536
5x2x0,75	19,0	596
6x2x0,75	21,0	782
8x2x0,75	23,2	918
10x2x0,75	25,7	1080
12x2x0,75	26,4	1158
16x2x0,75	29,0	1382
20x2x0,75	32,6	1795
24x2x0,75	35,9	2084
2x2x1	16,2	434
4x2x1	18,3	565
5x2x1	19,5	635
6x2x1	21,8	837
8x2x1	23,8	980
10x2x1	26,5	1145
12x2x1	27,2	1243
16x2x1	29,8	1476
20x2x1	33,6	1930
24x2x1	37,2	2260

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x1,3	16,9	468
4x2x1,3	19,1	620
5x2x1,3	21,4	826
6x2x1,3	22,9	927
8x2x1,3	25,3	1100
10x2x1,3	28,0	1282
12x2x1,3	28,9	1396
16x2x1,3	32,3	1853
20x2x1,3	35,9	2208
24x2x1,3	39,4	2543
2x2x1,5	17,5	500
4x2x1,5	19,6	648
5x2x1,5	21,9	870
6x2x1,5	23,4	967
8x2x1,5	25,9	1150
10x2x1,5	28,9	1353
12x2x1,5	29,7	1475
16x2x1,5	33,3	1957
20x2x1,5	37,1	2350
24x2x1,5	40,7	3170
2x2x2,5	19,7	610
4x2x2,5	23,2	953
5x2x2,5	25,1	1095
6x2x2,5	26,9	1228
8x2x2,5	29,9	1486
10x2x2,5	34,6	2000
12x2x2,5	35,6	2185
16x2x2,5	39,1	2608
20x2x2,5	44,2	3404
24x2x2,5	48,9	3964