

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
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
- 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	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	14,7	361
4x2x0,5	16,3	447
5x2x0,5	17,5	508
6x2x0,5	18,7	560
8x2x0,5	21,3	775
10x2x0,5	23,3	890
12x2x0,5	23,9	950
16x2x0,5	26,2	1118
20x2x0,5	28,6	1281
24x2x0,5	32,0	1660
2x2x0,75	15,8	408
4x2x0,75	17,8	521
5x2x0,75	19,0	578
6x2x0,75	21,0	761
8x2x0,75	23,2	890
10x2x0,75	25,7	1043
12x2x0,75	26,4	1115
16x2x0,75	29,0	1325
20x2x0,75	32,6	1723
24x2x0,75	35,9	1998
2x2x1	16,2	425
4x2x1	18,3	550
5x2x1	19,5	616
6x2x1	21,8	815
8x2x1	23,8	951
10x2x1	26,5	1108
12x2x1	27,2	1197
16x2x1	29,8	1415
20x2x1	33,6	1856
24x2x1	37,2	2170

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
2x2x1,3	16,9	460
4x2x1,3	19,1	604
5x2x1,3	21,4	805
6x2x1,3	22,9	902
8x2x1,3	25,3	1068
10x2x1,3	28,0	1240
12x2x1,3	28,9	1347
16x2x1,3	32,3	1785
20x2x1,3	35,9	2123
24x2x1,3	39,4	2441
2x2x1,5	17,5	490
4x2x1,5	19,6	630
5x2x1,5	21,9	850
6x2x1,5	23,4	940
8x2x1,5	25,9	1114
10x2x1,5	28,9	1308
12x2x1,5	29,7	1421
16x2x1,5	33,3	1885
20x2x1,5	37,1	2260
24x2x1,5	40,7	2595
2x2x2,5	19,7	594
4x2x2,5	23,2	926
5x2x2,5	25,1	1062
6x2x2,5	26,9	1188
8x2x2,5	29,9	1432
10x2x2,5	34,6	1935
12x2x2,5	35,6	2105
16x2x2,5	39,1	2502
20x2x2,5	44,2	3270
24x2x2,5	48,9	3804