

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 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
- Yw 105°C version
- 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	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)
1x2x0,5	10,9	230
2x2x0,5	13,4	318
4x2x0,5	14,9	390
5x2x0,5	15,8	436
6x2x0,5	16,7	480
8x2x0,5	18,3	558
10x2x0,5	20,7	753
12x2x0,5	21,4	812
16x2x0,5	23,1	940
20x2x0,5	25,3	1092
24x2x0,5	27,3	1224
1x2x0,75	11,5	255
2x2x0,75	14,6	365
4x2x0,75	16,1	455
5x2x0,75	17,1	506
6x2x0,75	18,4	567
8x2x0,75	20,7	773
10x2x0,75	22,9	905
12x2x0,75	23,5	970
16x2x0,75	25,6	1137
20x2x0,75	27,9	1320
24x2x0,75	30,5	1510
1x2x1	11,7	266
2x2x1	14,9	383
4x2x1	16,5	485
5x2x1	17,7	547
6x2x1	18,9	610
8x2x1	21,5	846
10x2x1	23,5	967
12x2x1	24,1	1040
16x2x1	26,4	1238
20x2x1	29,0	1454
24x2x1	32,2	1838

Cross Sections (mm ²)	Nominal Overall Diameter (mm)	Approximate Weight (kg/km)
1x2x1,3	12,1	284
2x2x1,3	15,5	416
4x2x1,3	17,5	546
5x2x1,3	18,6	610
6x2x1,3	19,8	680
8x2x1,3	22,6	940
10x2x1,3	24,8	1088
12x2x1,3	25,7	1200
16x2x1,3	27,9	1417
20x2x1,3	30,7	1670
24x2x1,3	34,7	2155
1x2x1,5	12,3	295
2x2x1,5	15,9	430
4x2x1,5	17,9	572
5x2x1,5	19,1	646
6x2x1,5	21,0	834
8x2x1,5	23,2	988
10x2x1,5	25,7	1167
12x2x1,5	26,4	1263
16x2x1,5	28,9	1512
20x2x1,5	32,3	1953
24x2x1,5	35,7	2292
1x2x2,5	13,5	347
2x2x2,5	18,0	540
4x2x2,5	21,0	845
5x2x2,5	22,6	964
6x2x2,5	24,2	1085
8x2x2,5	26,8	1300
10x2x2,5	29,8	1533
12x2x2,5	30,7	1696
16x2x2,5	34,8	2288
20x2x2,5	38,3	2696
24x2x2,5	42,0	3110