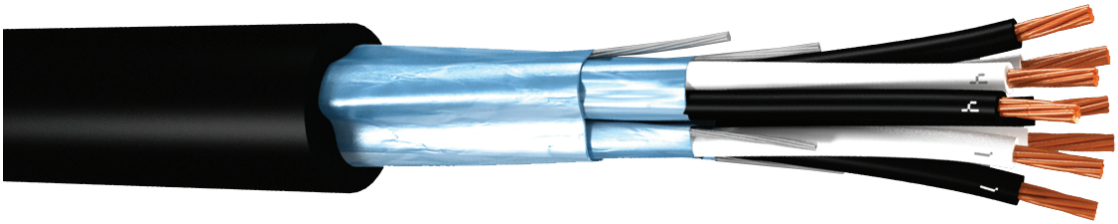
SIGNAL & INSTRUMENTATION CABLE

XLPE / ISCR / OSCR / PVC-FR
Individual and Overall Screen

90°C / 500 V

BS EN 50288-7



Construction

1. Stranded plain copper conductor
2. Cross-Linked Polyethylene insulation (XLPE)
3. Core twisted in pairs
4. Colour coding for pair : black/white, continuously numbered
   triad : black/white/red, continuously numbered
5. Individual screen of plastic bonded aluminium mylar tape with tinned copper drain wire, Screened pairs twisted in concentric layers
6. approx. 25% overlapped
7. Overall screen of plastic bonded aluminium mylar tape with tinned copper drain wire
8. PVC outer sheath, flame retardant to IEC 60332-3A, black or blue colour

Available on request : Tinned conductors, PVC, PE or EPR insulations, sheathing of LSOH, oil & hydrocarbon resistant, anti termite, anti rodent, and other special sheath performance

Application

For the transmission of signals and measuring data in power stations and industrial plants.
This cable is suitable for fixed indoor installations and for outdoor.

Electrical and technical data

Working voltage : max. 500 V

Test voltage core/core : 2000V 50Hz 1 min.
core/screen : 1000V 50Hz 1 min.

Conductor cross-section		nom.	0.5 mm²	0.75 mm²	1.00 mm²	1.50 mm²	2.50 mm²
Conductor resistance		max.	36.8 Ω/km	24.9 Ω/km	18.6 Ω/km	12.3 Ω/km	7.6 Ω/km
Mutual capacitance at 1 kHz	single pair :	max.	115 nF/km				
	2 to 4 pairs :		90 nF/km			102 nF/km	
	above 4 pairs :		75 nF/km			85 nF/km	
L/R ratio		max.	25 µH/Ω			40 µH/Ω	60 µH/Ω

Insulation resistance : min 5000 MΩ/km

Inductance : max. 1 mH/km

Temperature range, fixed : -30°C to +90°C

Minimum bending radius : 7,5 x cable diameter

Flame retardancy : IEC-60332-1
Flame propagation : IEC-60332-3-22 (cat A)

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Data Sheet

No. of pairs x cross section (mm^2)	Conductor no / mm	Thickness of insulation mm	Thickness of outer sheath mm	Overall diameter (approx.) mm	Cable weight approx. (kg/km)
2 x 2 x 0.5	7/0.3	0.6	1.0	10.6	106
4 x 2 x 0.5	7/0.3	0.6	1.1	13.4	178
6 x 2 x 0.5	7/0.3	0.6	1.2	15.7	240
8 x 2 x 0.5	7/0.3	0.6	1.3	16.6	296
10 x 2 x 0.5	7/0.3	0.6	1.3	18.4	362
12 x 2 x 0.5	7/0.3	0.6	1.4	20.0	425
16 x 2 x 0.5	7/0.3	0.6	1.5	22.8	548
20 x 2 x 0.5	7/0.3	0.6	1.6	25.4	679
24 x 2 x 0.5	7/0.3	0.6	1.7	27.7	804
2 x 2 x 0.75	7/0.37	0.6	1.1	11.5	127
4 x 2 x 0.75	7/0.37	0.6	1.2	14.5	214
6 x 2 x 0.75	7/0.37	0.6	1.2	17.0	290
8 x 2 x 0.75	7/0.37	0.6	1.3	17.8	352
10 x 2 x 0.75	7/0.37	0.6	1.4	19.9	439
12 x 2 x 0.75	7/0.37	0.6	1.5	21.5	509
16 x 2 x 0.75	7/0.37	0.6	1.6	24.7	670
20 x 2 x 0.75	7/0.37	0.6	1.7	27.5	829
24 x 2 x 0.75	7/0.37	0.6	1.7	29.7	961
2 x 2 x 1.0	7/0.43	0.6	1.1	12.3	146
4 x 2 x 1.0	7/0.43	0.6	1.2	15.4	244
6 x 2 x 1.0	7/0.43	0.6	1.3	18.3	343
8 x 2 x 1.0	7/0.43	0.6	1.4	19.4	430
10 x 2 x 1.0	7/0.43	0.6	1.4	21.3	515
12 x 2 x 1.0	7/0.43	0.6	1.5	23.2	609
16 x 2 x 1.0	7/0.43	0.6	1.6	26.5	790
20 x 2 x 1.0	7/0.43	0.6	1.7	29.4	971
24 x 2 x 1.0	7/0.43	0.6	1.8	32.0	1147
2 x 2 x 1.5	7/0.53	0.6	1.1	13.5	180
4 x 2 x 1.5	7/0.53	0.6	1.3	17.0	309
6 x 2 x 1.5	7/0.53	0.6	1.4	20.2	436
8 x 2 x 1.5	7/0.53	0.6	1.4	21.2	538
10 x 2 x 1.5	7/0.53	0.6	1.5	23.5	659
12 x 2 x 1.5	7/0.53	0.6	1.6	25.7	787
16 x 2 x 1.5	7/0.53	0.6	1.7	29.3	1020
20 x 2 x 1.5	7/0.53	0.6	1.8	32.4	1245
24 x 2 x 1.5	7/0.53	0.6	1.9	35.3	1475
2 x 2 x 2.5	7/0.67	0.7	1.2	15.9	248
4 x 2 x 2.5	7/0.67	0.7	1.4	20.1	433
6 x 2 x 2.5	7/0.67	0.7	1.5	23.8	608
8 x 2 x 2.5	7/0.67	0.7	1.6	25.3	775
10 x 2 x 2.5	7/0.67	0.7	1.7	28.0	947
12 x 2 x 2.5	7/0.67	0.7	1.8	30.5	1122
16 x 2 x 2.5	7/0.67	0.7	1.9	34.7	1448
20 x 2 x 2.5	7/0.67	0.7	2.1	38.7	1802
24 x 2 x 2.5	7/0.67	0.7	2.2	42.2	2141

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Data Sheet

No. of triads x cross section (mm^2)	Conductor no / mm	Thickness of insulation mm	Thickness of outer sheath mm	Overall diameter (approx.) mm	Cable weight approx. (kg/km)
2 x 3 x 0.5	7/0.3	0.6	1.1	11.4	131
4 x 3 x 0.5	7/0.3	0.6	1.2	14.4	223
8 x 3 x 0.5	7/0.3	0.6	1.3	17.6	367
12 x 3 x 0.5	7/0.3	0.6	1.4	21.3	535
16 x 3 x 0.5	7/0.3	0.6	1.5	24.3	693
20 x 3 x 0.5	7/0.3	0.6	1.6	27.0	855
24 x 3 x 0.5	7/0.3	0.6	1.7	29.4	1012
2 x 3 x 0.75	7/0.37	0.6	1.1	12.2	154
4 x 3 x 0.75	7/0.37	0.6	1.2	15.4	265
8 x 3 x 0.75	7/0.37	0.6	1.4	19.3	467
12 x 3 x 0.75	7/0.37	0.6	1.5	23.1	666
16 x 3 x 0.75	7/0.37	0.6	1.6	26.4	868
20 x 3 x 0.75	7/0.37	0.6	1.7	29.3	1069
24 x 3 x 0.75	7/0.37	0.6	1.8	31.9	1266
2 x 3 x 1.0	7/0.43	0.6	1.1	13.1	181
4 x 3 x 1.0	7/0.43	0.6	1.3	16.6	317
8 x 3 x 1.0	7/0.43	0.6	1.4	20.6	551
12 x 3 x 1.0	7/0.43	0.6	1.6	24.8	797
16 x 3 x 1.0	7/0.43	0.6	1.7	28.4	1043
20 x 3 x 1.0	7/0.43	0.6	1.8	31.5	1287
24 x 3 x 1.0	7/0.43	0.6	1.9	34.3	1522
2 x 3 x 1.5	7/0.53	0.6	1.2	14.5	232
4 x 3 x 1.5	7/0.53	0.6	1.3	18.1	397
8 x 3 x 1.5	7/0.53	0.6	1.5	22.7	715
12 x 3 x 1.5	7/0.53	0.6	1.7	27.5	1049
16 x 3 x 1.5	7/0.53	0.6	1.8	31.4	1368
20 x 3 x 1.5	7/0.53	0.6	1.9	34.8	1684
24 x 3 x 1.5	7/0.35	0.6	2.0	37.9	1998
2 x 3 x 2.5	7/0.67	0.7	1.3	17.0	321
4 x 3 x 2.5	7/0.67	0.7	1.4	21.3	561
8 x 3 x 2.5	7/0.67	0.7	1.6	26.9	1032
12 x 3 x 2.5	7/0.67	0.7	1.8	32.5	1508
16 x 3 x 2.5	7/0.67	0.7	2.0	37.2	1977
20 x 3 x 2.5	7/0.67	0.7	2.2	41.5	2465
24 x 3 x 2.5	7/0.67	0.7	2.3	45.2	2927