



HALLEY CABLES

RE-2X(St)H 90° C

CU/XLPE/OSCR/LSZH

Instrumentation Cables British Standard 300/500 V

XLPE insulated, collective screened, LSZH sheathed cable



Construction:

- Conductor : plain annealed copper wire, 0,50 mm² and 1,0 mm² flexible, 0,50 mm² and 0,75 mm² flexible or 1,5 mm² stranded.
- Insulation : XLPE compound, GP8 (RE-2X...).
- Core identification : black / white / red cores are numbered (1-1-1, 2-2-2,...).
- Triple : three conductors twisted to a triple.
- Lay-up : triples laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,50 mm².
- Outer sheath : LSZH compound, LST1; LSZH : Low Smoke Zero Halogen.
- Sheath colour : RAL 9005, black or RAL 5015, blue.

Technical data and tests:

- Rated voltage (U₀/U) : 300/500 V.
- Test voltage : Urms core-core : 1000 V;
Urms core-screen : 1000 V.
- Temperature range : operation : - 40° C ~ + 70° C;
installation : - 5° C ~ + 50° C.
- Capacitance unbalanced : (1 kHz) : max. 250 pF/250 m.
- Insulation resistance : min. 5000 MΩ/km.
- Min. bending radius : 6 x D.
- L/R (ratio) (max) : 0,50 mm² : 25 μH/Ω;
0,75 mm² : 25 μH/Ω;
1,0 mm² : 25 μH/Ω;
1,5 mm² : 40 μH/Ω.

Standards:

- Design : BS 5308 Part 1 Type 1.
- Conductor : BS 6360.
- Insulation : BS 7655.
- Outer sheath : BS 7655.
- Flame retardancy : IEC 60332-1 & BS EN 60332-1.
IEC 60332-3 & BS EN 50266-2-4.
- Smoke density : IEC 61034-2 & BS EN 61034-2.
- Halogen-free : IEC 60754-1/2 & BS EN 50267-2.

Technical data and tests:

- Insulation thickness : 0,50 mm² : 0,50 mm;
1,0 mm² : 0,60 mm;
0,50 mm² : 0,60 mm;
0,75 mm² : 0,60 mm;
1,50 mm² : 0,60 mm.
- Conductor class, BS 6360 : 0,50 mm² : Class 1;
1,0 mm² : Class 1;
0,50 mm² : Class 5;
0,75 mm² : Class 5;
1,50 mm² : Class 2.
- Conductor resistance : 0,50 mm² : 36,8 Ω/km;
1,0 mm² : 18,4 Ω/km;
0,50 mm² : 39,7 Ω/km;
0,75 mm² : 26,5 Ω/km;
1,50 mm² : 12,3 Ω/km.
- Mutual capacitance (1 kHz) : ≤2 pairs : all other pairs
0,50 mm² : max. 115 pF/m, max. 75 pF/m;
0,75 mm² : max. 115 pF/m, max. 75 pF/m;
1,0 mm² : max. 115 pF/m, max. 75 pF/m;
1,5 mm² : max. 120 pF/m, max. 85 pF/m.

Applications:

These cables are used for transmission of analogue and digital signals in instrumentation and control systems at chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants, etc. Instrumentation cables are not allowed for direct connection to a low impedance source, e.g. public mains electricity supply. These cables are not recommended for direct burial. They are for indoor and outdoor installation, in dry and wet locations; on racks, trays, in conduits.



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DIMENSIONS

No. of cores x cross section mm ²	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
0,50 mm ² (mono/solid)			
1x3x0,50	6,5	19	60
2x3x0,50	9,6	33	95
5x3x0,50	12,2	77	180
10x3x0,50	16,6	149	320
15x3x0,50	18,9	221	440
20x3x0,50	21,4	293	625
30x3x0,50	26,1	437	900
50x3x0,50	33,0	725	1495
0,50 mm ² (flexible)			
1x3x0,50	6,9	19	65
2x3x0,50	11,5	33	105
5x3x0,50	14,0	77	195
10x3x0,50	19,2	149	340
15x3x0,50	21,6	221	475
20x3x0,50	25,3	293	670
30x3x0,50	30,6	437	955
50x3x0,50	38,9	725	1595
0,75 mm ² (flexible)			
1x3x0,75	7,5	26	75
2x3x0,75	12,5	48	135
5x3x0,75	15,6	113	275
10x3x0,75	21,2	221	515
15x3x0,75	24,8	329	720
20x3x0,75	27,9	437	925
30x3x0,75	33,9	653	1400
50x3x0,75	43,5	1085	2205
1,0 mm ² (mono/solid)			
1x3x1	7,2	33	80
2x3x1	12,1	62	145
5x3x1	15,0	148	305
10x3x1	20,5	292	580
15x3x1	24,0	437	825
20x3x1	27,0	581	1065
30x3x1	32,8	869	1615
50x3x1	42,4	1445	2595
1,5 mm ² (stranded)			
1x3x1,5	8,2	48	105
2x3x1,5	13,6	91	195
5x3x1,5	17,5	221	420
10x3x1,5	24,6	437	795
15x3x1,5	28,1	653	1130
20x3x1,5	32,4	867	1480
30x3x1,5	39,4	1301	2240
50x3x1,5	49,8	2165	3585

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