



HALLEY CABLES

RE-2X(St)H-TIMF 90° C

CU/XLPE/ISCR/OSCR/LSZH

Instrumentation Cables British Standard 300/500 V

XLPE insulated, individual & 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, GP 8 (RE-2X...).
- Core identification : black / white / red; with numbered tape under separator tape of the pair screen.
- Triple : three conductors twisted to a triple.
- TIMF construction : polyester tape above the pair, AL-PES tape over tinned copper drain wire, 0,50 mm².
- Lay-up : TIMF 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 (U_o/U) : 300/500 V.
- Test voltage : Urms core-core : 1000 V;
Urms core-screen : 1000 V.
- Temperature range : operation : - 40° C ~ + 90° 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.

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. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire. With blue sheath it is suitable for intrinsically safe systems. 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.

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.



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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)			
2x3x0,50	11,3	53	130
5x3x0,50	14,4	125	255
10x3x0,50	19,8	245	455
15x3x0,50	22,4	265	655
20x3x0,50	25,8	485	870
30x3x0,50	31,3	725	1290
50x3x0,50	40,2	1205	2080
0,50 mm ² (flexible)			
2x3x0,50	12,8	53	140
5x3x0,50	16,4	125	270
10x3x0,50	22,5	245	470
15x3x0,50	26,1	265	695
20x3x0,50	29,9	485	1005
30x3x0,50	36,2	725	1365
50x3x0,50	46,1	1205	2195
0,75 mm ² (flexible)			
2x3x0,75	13,9	72	175
5x3x0,75	17,6	173	345
10x3x0,75	24,9	341	635
15x3x0,75	28,1	509	935
20x3x0,75	32,4	677	1230
30x3x0,75	39,5	1013	1835
50x3x0,75	51,0	1685	2975
1,0 mm ² (mono/solid)			
2x3x1	13,6	91	200
5x3x1	17,1	221	390
10x3x1	23,2	437	725
15x3x1	27,4	653	1070
20x3x1	31,5	869	1425
30x3x1	38,4	1301	2115
50x3x1	49,2	2135	3435
1,5 mm ² (stranded)			
2x3x1,5	15,4	129	260
5x3x1,5	19,9	317	530
10x3x1,5	28,0	629	1015
15x3x1,5	32,6	941	1495
20x3x1,5	37,8	1253	1995
30x3x1,5	45,0	1877	2935
50x3x1,5	57,1	3125	4695

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