



HALLEY CABLES

RE-2X(St)HSWAH MP 90° C

CU/XLPE/OSCR/LSZH/SWA/LSZH

Instrumentation Cables British Standard 300/500 V

XLPE insulated, screened, armoured, 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 : according to BS 5308 Part 1 colour coded. Other core configurations manufactured upon request.
- Pair : two conductors twisted to a pair.
- Lay-up : pairs laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,50 mm².
- Bedding : LSZH compound, black.
- Armour : galvanized round steel wire.
- 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 : 8 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.
- Armour : BS EN 10257-1.
- 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 the 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 to be directly connected to a low impedance source, e.g. public mains electricity supply. In case of fire, these cables inhibit the propagation of the flames and 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. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
0,50 mm ² (mono/solid)				
1x2x0,50	6,3	10,7	14	210
2x2x0,50 quads	7,1	11,5	24	265
5x2x0,50	11,6	16,2	52	440
10x2x0,50	15,0	20,7	100	760
15x2x0,50	17,1	22,8	149	920
20x2x0,50	19,4	26,0	196	1255
30x2x0,50	23,0	29,8	292	1600
50x2x0,50	28,9	36,1	484	2290
0,50 mm ² (flexible)				
1x2x0,50	7,0	11,4	14	220
2x2x0,50 quads	7,9	12,3	24	280
5x2x0,50	13,1	17,9	52	505
10x2x0,50	17,2	22,9	100	840
15x2x0,50	19,8	26,4	149	1255
20x2x0,50	22,3	29,1	196	1470
30x2x0,50	26,9	33,9	292	1940
50x2x0,50	33,9	42,1	484	2905
0,75 mm ² (flexible)				
1x2x0,75	7,3	11,7	19	270
2x2x0,75	8,3	12,9	33	320
5x2x0,75	14,3	19,8	77	700
10x2x0,75	18,7	25,3	149	1225
15x2x0,75	21,4	28,2	221	1465
20x2x0,75	24,5	31,3	292	1770
30x2x0,75	29,5	37,5	437	2605
50x2x0,75	37,4	45,8	725	4130
1,0 mm ² (mono/solid)				
1x2x1	7,4	11,8	24	245
2x2x1 quads	8,4	13,0	43	345
5x2x1	14,2	19,7	100	705
10x2x1	18,4	24,3	196	1025
15x2x1	21,3	28,1	292	1500
20x2x1	24,4	31,2	388	1795
30x2x1	29,0	36,2	580	2320
50x2x1	37,3	45,7	964	3735
1,5 mm ² (stranded)				
1x2x1,5	8,3	12,9	33	290
2x2x1,5 quads	9,7	14,3	62	395
5x2x1,5	16,4	22,1	148	850
10x2x1,5	21,6	28,4	292	1545
15x2x1,5	25,2	32,2	436	1970
20x2x1,5	28,5	35,7	580	2555
30x2x1,5	34,3	42,5	868	3335
50x2x1,5	43,6	53,4	1444	5125

