



HALLEY CABLES

RE-2Y(St)2YSWAY-fl PIMF 70° C

CU/PE/ISCR/OSCR/PE/SWA/PVC

Instrumentation Cables British Standard 300/500 V

PE insulated, screened, armoured, PVC sheathed cable



Construction:

- Conductor : plain annealed copper wire, 0,50 mm² and 1,0 mm² solid, 0,50 mm² flexible or 1,5 mm² stranded.
- Insulation : PE compound.
- Core identification : black / blue ; with numbered tape under separator tape of the pair screen.
- Pair : two conductors twisted to a pair.
- PIMF construction : polyester tape above the pair, AL-PES tape over tinned copper drain wire, 0,50 mm².
- Lay-up : PIMF laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,50 mm².
- Bedding : PE compound black.
- Armour : galvanized round steel wire.
- Outer sheath : PVC compound, flame retardant; TM1.
- Sheath colour : RAL 9005, black.

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 ~ + 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.

Standards:

- Design : BS 5308 Part 1 Type 2.
- Conductor : BS 6360.
- Insulation : BS 6234 Type 03.
- Armour : BS EN 10257-1.
- Bedding : BS 6234 Type 3.
- Outer sheath : BS 7655.
- Flame retardancy : IEC 60332-1 & BS EN 60332-1.

Technical data and tests:

- Insulation thickness : 0,50 mm² : 0,50 mm;
1,0 mm² : 0,60 mm;
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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;
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.
- L/R (ratio) (max) : 0,50 mm² : 25 μH/Ω;
1,0 mm² : 25 μH/Ω;
1,5 mm² : 40 μH/Ω.
- Mutual capacitance (1 kHz) : ≤ 2 pairs all other pairs
0,50 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. The armour above the inner sheath protects the cable from mechanical shocks. These cables are 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. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
0,50 mm ² (mono/solid)				
2x2x0,50	10,3	14,9	33	355
5x2x0,50	13,5	19,0	76	630
10x2x0,50	18,3	24,2	148	890
15x2x0,50	21,1	27,7	220	1310
20x2x0,50	23,5	30,3	292	1540
30x2x0,50	27,9	34,9	436	2025
50x2x0,50	36,1	44,5	724	3215
0,50 mm ² (flexible)				
2x2x0,50	12,0	16,8	33	425
5x2x0,50	15,2	20,9	76	710
10x2x0,50	21,1	27,9	148	1290
15x2x0,50	24,5	31,3	220	1580
20x2x0,50	27,3	34,3	292	1810
30x2x0,50	32,3	40,5	436	2650
50x2x0,50	41,7	51,5	724	4250
1,0 mm ² (mono/solid)				
2x2x1	12,8	17,6	52	450
5x2x1	16,2	21,9	125	790
10x2x1	22,6	29,4	245	1420
15x2x1	26,2	33,2	365	1795
20x2x1	29,8	37,8	485	2395
30x2x1	35,4	43,8	725	3225
50x2x1	44,9	54,9	1205	4865
1,5 mm ² (stranded)				
2x2x1,5	14,7	20,4	71	660
5x2x1,5	18,8	25,4	172	1160
10x2x1,5	26,5	33,5	340	1710
15x2x1,5	30,8	38,8	508	2425
20x2x1,5	34,4	42,6	676	2890
30x2x1,5	41,0	50,8	1012	4265
50x2x1,5	52,2	62,6	1684	5900

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