



# HALLEY CABLES

# RE-2Y(St)Y-fl-MP 70° C

## CU/PE/OSCR/PVC

### Instrumentation Cables British Standard 300/500 V

PE insulated, collective screened, PVC sheathed cable



### Construction:

- Conductor : plain annealed copper wire, 0,5 mm<sup>2</sup> and 0,1 mm<sup>2</sup> solid, 0,5 mm<sup>2</sup> flexible or 1,5 mm<sup>2</sup> stranded.
- Insulation : PE compound.
- Core identification : according to BS 5308 Part 1 colour coded.
- Pair : two conductors twisted in a pair.
- Lay-up : pairs laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,5 mm<sup>2</sup>.
- Outer sheath : PVC compound, flame retardant.
- Sheath colour : RAL 9005, black.

### Technical data and tests:

- Rated voltage (U<sub>o</sub>/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 mm<sup>2</sup> : 25 μH/Ω;  
1,0 mm<sup>2</sup> : 25 μH/Ω;  
1,5 mm<sup>2</sup> : 40 μH/Ω.

### Standards:

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

### Applications:

This cable is 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. This cable is not recommended for direct burial. It is for indoor and outdoor installation, in dry and wet locations; on racks, trays, in conduits.

### Technical data and tests:

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

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## DIMENSIONS

No. of cores x cross section mm <sup>2</sup>	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
0,50 mm <sup>2</sup> (flexible)			
1x2x0,50	7,0	14	45
2x2x0,50 quad	7,9	24	70
5x2x0,50	13,1	52	165
10x2x0,50	17,2	100	285
15x2x0,50	19,8	149	400
20x2x0,50	22,2	196	455
30x2x0,50	26,9	292	740
50x2x0,50	33,9	484	1180
0,75 mm <sup>2</sup> (flexible)			
1x2x0,75	7,3	19	50
2x2x0,75 quad	8,3	33	80
5x2x0,75	14,3	77	210
10x2x0,75	18,7	149	360
15x2x0,75	21,4	221	500
20x2x0,75	24,5	292	670
30x2x0,75	29,5	437	980
50x2x0,75	37,4	725	1560
1,5 mm <sup>2</sup> (stranded)			
1x2x1,5	8,3	33	80
2x2x1,5 quad	9,7	62	135
5x2x1,5	16,4	148	310
10x2x1,5	21,6	292	550
15x2x1,5	25,2	436	820
20x2x1,5	28,5	580	1030
30x2x1,5	34,3	868	1525
50x2x1,5	43,6	1444	2490

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