



# HALLEY CABLES

# RE-2Y(St)Y-fl 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; ,0,50 mm<sup>2</sup> and 1,0 mm<sup>2</sup> solid, 0,50 mm<sup>2</sup> and 0,75 mm<sup>2</sup> flexible or 1,5 mm<sup>2</sup> stranded.
- Insulation : PE compound.
- Core identification : black / white / red cores are numbered (1-1-1, 2-2-2,...).
- Triple : three conductors twisted to a pair.
- Lay-up : triples laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,50 mm<sup>2</sup>.
- Outer sheath : PVC compound, flame retardant; TM1.
- Sheath colour : RAL 9005, black or RAL 5015, blue.

### Technical data and tests:

- Rated voltage (U<sub>0</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;  
0,75 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.  
IEC 60332-3 & BS EN 50266-2-4.

### Applications:

These cables are used for transmission of analogue and digital signals in instrument 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. 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 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;  
0,75 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;  
0,75 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;  
0,75 mm<sup>2</sup> : 26,5 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;  
0,75 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.

www.halleycables.com

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**RE-2Y(St)Y-fl 70° C ~ CU/PE/OSCR/PVC****DIMENSIONS**

No. of cores x cross section mm <sup>2</sup>	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
0,5 mm <sup>2</sup> (mono/solid)			
1x3x0,50	6,5	19	55
2x3x0,50	9,6	33	90
5x3x0,50	12,2	77	175
10x3x0,50	16,6	149	310
15x3x0,50	18,9	221	435
20x3x0,50	21,4	293	610
30x3x0,50	26,1	437	875
50x3x0,50	33,0	725	1455
0,5 mm <sup>2</sup> (flexible)			
1x3x0,50	6,9	19	60
2x3x0,50	11,5	33	100
5x3x0,50	14,0	77	185
10x3x0,50	19,2	149	330
15x3x0,50	21,6	221	460
20x3x0,50	25,3	293	655
30x3x0,50	30,6	437	930
50x3x0,50	38,9	725	1555
0,75 mm <sup>2</sup> (flexible)			
1x3x0,75	7,5	26	70
2x3x0,75	12,5	48	130
5x3x0,75	15,6	113	265
10x3x0,75	21,2	221	500
15x3x0,75	24,8	329	700
20x3x0,75	27,9	437	900
30x3x0,75	33,9	653	1370
50x3x0,75	43,5	1085	2175
1 mm <sup>2</sup> (mono/solid)			
1x3x1	7,2	33	75
2x3x1	12,1	62	140
5x3x1	15,0	148	295
10x3x1	20,5	292	565
15x3x1	24,0	437	805
20x3x1	27,0	581	1040
30x3x1	32,8	869	1575
50x3x1	42,4	1445	2525
1,5 mm <sup>2</sup> (stranded)			
1x3x1,5	8,2	48	100
2x3x1,5	13,6	91	185
5x3x1,5	17,5	221	405
10x3x1,5	24,6	437	775
15x3x1,5	28,1	653	1105
20x3x1,5	32,4	867	1440
30x3x1,5	39,4	1301	2185
50x3x1,5	49,8	2165	3500

