



# HALLEY CABLES

# RE-Y(St)Y-fl

## CU/PVC/OSCR/PVC

### Instrumentation Cables PVC DK PVC 300 V

PVC insulated, individual & collective screened, PVC sheathed cable



#### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : PVC compound, 70° C.
- Core identification : black / blue / red cores are numbered (1-1-1, 2-2-2,...). Upon request: colour coded according to IEC 60189-2. Other core configurations manufactured upon request.
- Triple : three conductors twisted to a triple.
- Lay-up : triples laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over stranded tinned copper drain wire 0,50 mm<sup>2</sup>.
- Outer sheath : PVC compound, 70° C.
- Sheath colour : RAL 9005, black or RAL 5015, blue.

#### Technical data and tests:

- Rated voltage : 300 V.
- Test voltage : Urms core-core : 1500 V;  
Urms core-screen : 1500 V.
- Temperature range : operation : - 30° C ~ + 70° C;  
installation : - 5° C ~ + 50° C.
- Min. bending radius : 7.5 x D.
- Insulation resistance : min. 100 MΩ/km.
- Capacitance unbalanced : (1 kHz) : max. 500 pF/500 m.

#### Technical data and tests:

- Insulation thickness : 0,50 mm<sup>2</sup> : 0,40 mm;  
0,75 mm<sup>2</sup> : 0,40 mm;  
1,0 mm<sup>2</sup> : 0,40 mm;  
1,3 mm<sup>2</sup> : 0,45 mm;  
1,5 mm<sup>2</sup> : 0,45 mm.
- Conductor resistance : 0,50 mm<sup>2</sup> : 36,7 Ω/km;  
0,75 mm<sup>2</sup> : 25,0 Ω/km;  
1,0 mm<sup>2</sup> : 18,5 Ω/km;  
1,3 mm<sup>2</sup> : 14,2 Ω/km;  
1,5 mm<sup>2</sup> : 12,3 Ω/km.
- 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;  
1,3 mm<sup>2</sup> : 40 μH/Ω;  
1,5 mm<sup>2</sup> : 40 μH/Ω.
- Mutual capacitance (1 kHz) : ≤ 4 pairs : max. 190 pF/m;  
0,50 mm<sup>2</sup> : max. 190 pF/m; max. 150 pF/m;  
0,75 mm<sup>2</sup> : max. 190 pF/m; max. 150 pF/m;  
1,0 mm<sup>2</sup> : max. 190 pF/m; max. 150 pF/m;  
1,3 mm<sup>2</sup> : max. 200 pF/m; max. 150 pF/m;  
1,5 mm<sup>2</sup> : max. 200 pF/m. max. 150 pF/m.

#### Standards:

- Design : DIN EN 50288-7.
- Conductor : IEC 60228 class 2, DIN EN 60228 class 2.
- Insulation : EN 50290-2-21.
- Outer sheath : EN 50290-2-22.
- Flame retardancy : IEC 60332-1 & EN 60332-1.

#### 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 to be directly connected to a low impedance source, e.g. public mains electricity supply. Where endurance at 105° C is needed, RE-Yw(St)Yw cables are suitable. 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.



**HALLEY CABLES****RE-Y(St)Y-fl****CU/PVC/OSCR/PVC****Instrumentation Cables PVC DK PVC 300 V**

PVC insulated, individual &amp; collective screened, PVC sheathed cable

www.halleycables.com

**DIMENSIONS**

No. of cores x cross section mm <sup>2</sup>	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
1x3x0,50	5,8	19	50
1x3x0,75	6,2	26	60
1x3x1	6,7	34	70
1x3x1,3	7,3	42	90
1x3x1,5	7,5	48	95
2x3x0,50	9,0	34	85
2x3x0,75	9,8	48	110
2x3x1	10,5	62	130
2x3x1,3	11,9	80	175
2x3x1,5	12,3	91	190
4x3x0,50	10,3	62	135
4x3x0,75	11,4	91	175
4x3x1	12,3	120	215
4x3x1,3	13,9	155	275
4x3x1,5	14,4	177	305
5x3x0,50	11,2	77	160
5x3x0,75	12,2	113	210
5x3x1	13,2	149	260
5x3x1,3	14,9	192	340
5x3x1,5	15,4	220	370
6x3x0,50	12,0	91	190
6x3x0,75	13,1	134	245
6x3x1	14,4	178	310
6x3x1,3	16,3	230	400
6x3x1,5	16,8	264	440
8x3x0,50	13,7	120	245
8x3x0,75	14,9	177	315
8x3x1	16,4	235	400
8x3x1,3	18,3	304	505
8x3x1,5	19,2	350	570
10x3x0,50	14,9	149	295
10x3x0,75	16,6	221	390
10x3x1	18,0	293	485
10x3x1,3	20,4	379	620
10x3x1,5	21,1	436	695
12x3x0,50	16,3	178	350
12x3x0,75	17,9	264	455
12x3x1	19,6	350	575

**RE-Y(St)Y-fl ~ CU/PVC/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
12x3x1,3	22,2	454	740
12x3x1,5	23,0	523	825
16x3x0,50	18,4	235	445
16x3x0,75	20,4	350	600
16x3x1	22,4	466	755
16x3x1,3	25,3	604	975
16x3x1,5	26,2	696	1080
20x3x0,50	20,4	293	550
20x3x0,75	22,6	437	740
20x3x1	24,8	581	930
20x3x1,3	28,1	754	1200
20x3x1,5	29,1	868	1345
24x3x0,50	22,2	350	660
24x3x0,75	24,6	523	880
24x3x1	27,1	696	1110
24x3x1,3	30,6	903	1430
24x3x1,5	31,7	1041	1605