



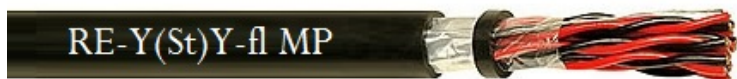
# HALLEY CABLES

# RE-Y(St)Y-fl MP CU/PVC/OSCR/PVC

## Instrumentation Cables PVC DK PVC 300 V

PVC insulated, individual & collective screened, PVC sheathed cable

www.halleycables.com



### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : PVC compound, 70° C.
- Core identification : black / white cores numbered 1-1, 2-2,... Upon request: colour coded according to IEC 60189-2. 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 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.

### 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.

### 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      all other pairs  
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.

### 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. 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.



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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
1x2x0,50	5,4	14	40
1x2x0,75	6,0	19	50
1x2x1	6,4	24	60
1x2x1,3	7,0	30	65
1x2x1,5	7,2	34	75
2x2x0,50	7,9	24	60
2x2x0,75	8,8	34	80
2x2x1	9,5	43	95
2x2x1,3	10,5	55	110
2x2x1,5	10,8	62	135
4x2x0,50	9,4	43	100
4x2x0,75	10,2	62	125
4x2x1	11,1	82	150
4x2x1,3	12,5	105	195
4x2x1,5	12,9	120	210
5x2x0,50	9,9	53	115
5x2x0,75	10,9	77	155
5x2x1	11,8	101	185
5x2x1,3	13,1	130	230
5x2x1,5	13,6	149	255
6x2x0,50	10,6	62	135
6x2x0,75	11,7	91	175
6x2x1	12,7	120	215
6x2x1,3	14,3	155	275
6x2x1,5	14,8	178	300
8x2x0,50	12,0	82	175
8x2x0,75	13,1	120	220
8x2x1	14,4	158	275
8x2x1,3	16,1	204	350
8x2x1,5	16,9	235	395
10x2x0,50	13,1	101	205
10x2x0,75	14,6	149	275
10x2x1	15,8	197	340
10x2x1,3	17,9	254	430
10x2x1,5	18,5	293	475
12x2x0,50	14,3	120	245
12x2x0,75	15,7	178	320

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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
12x2x1	17,3	235	400
12x2x1,3	19,5	304	515
12x2x1,5	20,2	350	565
16x2x0,50	16,1	158	310
16x2x0,75	17,9	235	415
16x2x1	19,7	312	525
16x2x1,3	22,2	404	670
16x2x1,5	23,0	466	745
20x2x0,50	17,9	197	385
20x2x0,75	19,9	293	515
20x2x1	21,6	389	640
20x2x1,3	24,4	504	820
20x2x1,5	25,5	581	910
24x2x0,50	19,3	235	450
24x2x0,75	21,4	350	605
24x2x1	23,6	466	760
24x2x1,3	26,6	604	975
24x2x1,5	27,8	696	1095

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