



# HALLEY CABLES

# RE-Y(St)YSWAY-fl PIMF CU/PVC/OSCR/PVC/SWA/PVC

## Instrumentation Cables PVC DK PVC 300 V

PVC insulated, screened, armoured, PVC sheathed cable

RE-Y(St)YSWAY-fl PIMF



### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : PVC compound, 70° C.
- Core identification : black / white with numbered tape under separator tape of the pair screen. Upon request: black / white cores numbered 1-1, 2-2,... Other core configurations manufactured upon request.
- Pair : two conductors twisted to a pair.
- PIMF Construction : polyester tape above the pair, AL-PES tape over solid tinned copper drain wire, 0,60 mm. Upon request: stranded 0,50 mm<sup>2</sup> copper drain wire.
- Lay-up : PIMF 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>.
- Inner sheath : PVC compound, 70° C.
- Armour : galvanized round steel wire.
- 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 : 10 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.
- Inner/outer sheath : EN 50290-2-22.
- Armour : EN 10257-1.
- 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-PIMF 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.

### 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) : 0,50 mm<sup>2</sup> : max. 190 pF/m;  
0,75 mm<sup>2</sup> : max. 190 pF/m;  
1,0 mm<sup>2</sup> : max. 190 pF/m;  
1,3 mm<sup>2</sup> : max. 200 pF/m;  
1,5 mm<sup>2</sup> : max. 200 pF/m.

www.halleycables.com

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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
2x2x0,50	13,7	34	310
2x2x0,75	14,5	43	345
2x2x1	15,3	53	375
2x2x1,3	16,7	64	430
2x2x1,5	17,0	72	445
4x2x0,50	15,1	62	390
4x2x0,75	16,2	82	440
4x2x1	17,2	101	490
4x2x1,3	18,6	123	560
4x2x1,5	19,1	139	600
5x2x0,50	16,0	77	430
5x2x0,75	17,0	101	490
5x2x1	18,0	125	545
5x2x1,3	20,5	153	735
5x2x1,5	20,3	173	670
6x2x0,50	16,8	91	475
6x2x0,75	18,0	120	540
6x2x1	20,0	149	705
6x2x1,3	21,7	183	815
6x2x1,5	22,2	206	860
8x2x0,50	18,3	120	550
8x2x0,75	20,5	158	740
8x2x1	21,8	197	830
8x2x1,3	24,0	242	975
8x2x1,5	24,6	274	1025
10x2x0,50	19,8	149	635
10x2x0,75	22,0	197	840
10x2x1	23,6	245	955
10x2x1,3	25,8	302	1110
10x2x1,5	26,8	341	1195
12x2x0,50	21,7	178	815
12x2x0,75	23,5	235	945
12x2x1	25,1	293	1070
12x2x1,3	27,7	361	1260
12x2x1,5	28,5	408	1335
16x2x0,50	24,0	235	975
16x2x0,75	25,9	312	1125





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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
16x2x1	27,9	389	1295
16x2x1,3	31,6	480	1695
16x2x1,5	32,9	542	1830
20x2x0,50	25,9	293	1115
20x2x0,75	28,1	389	1310
20x2x1	31,5	485	1710
20x2x1,3	34,8	600	2010
20x2x1,5	35,8	677	2135
24x2x0,50	27,7	350	1260
24x2x0,75	30,6	466	1520
24x2x1	33,6	581	1920
24x2x1,3	37,2	719	2270
24x2x1,5	38,5	811	2425

