



**HALLEY CABLES**

**RE-Yw(St)Yw-fl MP**

**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, 105° 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, 105° 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 ~ + 105° 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 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.



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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	35
1x2x0,75	6,0	19	45
1x2x1	6,4	24	55
1x2x1,3	7,0	30	60
1x2x1,5	7,2	34	70
2x2x0,50	7,9	24	55
2x2x0,75	8,8	34	75
2x2x1	9,5	43	90
2x2x1,3	10,5	55	105
2x2x1,5	10,8	62	130
4x2x0,50	9,4	43	95
4x2x0,75	10,2	62	120
4x2x1	11,1	82	145
4x2x1,3	12,5	105	190
4x2x1,5	12,9	120	205
5x2x0,50	9,9	53	110
5x2x0,75	10,9	77	150
5x2x1	11,8	101	175
5x2x1,3	13,1	130	220
5x2x1,5	13,6	149	245
6x2x0,50	10,6	62	130
6x2x0,75	11,7	91	165
6x2x1	12,7	120	205
6x2x1,3	14,3	155	265
6x2x1,5	14,8	178	290
8x2x0,50	12,0	82	165
8x2x0,75	13,1	120	210
8x2x1	14,4	158	265
8x2x1,3	16,1	204	335
8x2x1,5	16,9	235	385
10x2x0,50	13,1	101	195
10x2x0,75	14,6	149	265
10x2x1	15,8	197	330
10x2x1,3	17,9	254	415
10x2x1,5	18,5	293	460
12x2x0,50	14,3	120	230
12x2x0,75	15,7	178	310

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12x2x1	17,3	235	385
12x2x1,3	19,5	304	495
12x2x1,5	20,2	350	545
16x2x0,50	16,1	158	300
16x2x0,75	17,9	235	400
16x2x1	19,7	312	505
16x2x1,3	22,2	404	645
16x2x1,5	23,0	466	720
20x2x0,50	17,9	197	370
20x2x0,75	19,9	293	495
20x2x1	21,6	389	620
20x2x1,3	24,4	504	790
20x2x1,5	25,5	581	880
24x2x0,50	19,3	235	430
24x2x0,75	21,4	350	585
24x2x1	23,6	466	735
24x2x1,3	26,6	604	945
24x2x1,5	27,8	696	1060

