



# HALLEY CABLES

# RE-Y<sub>w</sub>(St)Y<sub>w</sub>SWAY<sub>w</sub>-fl-TIMF 105° C

## CU/PVC/ISCR/OSCR/PVC/SWA/PVC

### Instrumentation Cables PVC DK PVC 500 V

PVC insulated and sheathed, screened, armoured, PVC sheathed cable



### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : PVC compound, 105° C.
- Core identification : black / blue / red; with numbered tape under separator tape of the pair screen. Upon request: black / blue / red cores numbered 1-1-1, 2-2-2,... Other core configurations manufactured upon request.
- Triple : three conductors twisted to a triple.
- TIMF construction : polyester tape above the triple, 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 : TIMF 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 105° C.
- Armour : galvanized round steel wire.
- Outer sheath : PVC compound, 105° C.
- Sheath colour : RAL 9005, black or RAL 5015, blue.

### Technical data and tests:

- Rated voltage : 500 V.
- Test voltage : Urms core-core : 2000 V;  
Urms core-screen : 2000 V.
- Temperature range : operation : - 30° C ~ + 105° C;  
installation : - 5° C ~ + 50° C.
- Min. bending radius : 10 x D.
- Insulation resistance : min. 100 MΩ/km.

### Standards:

- Design : DIN EN 50288-7.
- Insulation : EN 50290-2-21.
- Conductor : IEC 60228 class 2, DIN EN 60228 class 2.
- Inner sheath : EN 50290-2-22.
- Armour : EN 10257-1.
- Outer sheath : EN 50290-2-22.
- Flame retardance test : IEC 60332-1 & EN 60332-1.

### Technical data and tests:

- 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.
- Mutual Capacitance : 0,50 mm<sup>2</sup> : max. 160 pF/m;  
0,75 mm<sup>2</sup> : max. 160 pF/m;  
1,0 mm<sup>2</sup> : max. 160 pF/m;  
1,3 mm<sup>2</sup> : max. 170 pF/m;  
1,5 mm<sup>2</sup> : max. 170 pF/m.
- 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;

### 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. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
2x3x0,50	12,2	17,0	43	395
2x3x0,75	13,1	17,9	58	435
2x3x1	14,1	19,1	72	485
2x3x1,3	15,3	21,0	89	645
2x3x1,5	16,1	21,8	101	680
4x3x0,50	13,9	18,7	82	500
4x3x0,75	15,1	20,8	110	670
4x3x1	16,2	21,9	139	745
4x3x1,3	17,6	23,5	174	845
4x3x1,5	18,5	24,4	197	900
5x3x0,50	14,7	19,7	101	555
5x3x0,75	15,9	21,6	137	740
5x3x1	17,2	23,1	173	830
5x3x1,3	18,7	24,6	216	935
5x3x1,5	19,6	25,5	245	1000
6x3x0,50	15,9	21,6	120	720
6x3x0,75	17,2	23,1	163	825
6x3x1	18,6	24,5	206	925
6x3x1,3	20,3	26,2	258	1045
6x3x1,5	21,3	27,4	292	1135
8x3x0,50	18,0	23,9	158	860
8x3x0,75	19,5	25,4	216	980
8x3x1	21,1	27,2	274	1110
8x3x1,3	23,0	29,1	343	1265
8x3x1,5	24,6	31,6	389	1565
10x3x0,50	19,8	25,7	197	980
10x3x0,75	21,5	27,6	267	1135
10x3x1	23,3	29,4	341	1280
10x3x1,3	25,8	32,8	427	1675
10x3x1,5	27,1	34,3	485	1815
12x3x0,50	21,5	27,6	235	1105
12x3x0,75	23,8	30,1	322	1310
12x3x1	25,7	32,7	408	1650
12x3x1,3	28,0	35,2	512	1900
12x3x1,5	29,5	36,7	581	2040
16x3x0,50	24,8	31,8	312	1525
16x3x0,75	27,0	34,2	427	1765





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16x3x1	29,2	36,4	542	2000
16x3x1,3	32,0	39,4	681	2305
16x3x1,5	33,6	42,0	773	2760
20x3x0,50	27,4	34,6	389	1765
20x3x0,75	29,9	37,1	533	2040
20x3x1	32,3	39,7	677	2330
20x3x1,3	35,8	44,2	850	3005
20x3x1,5	37,6	46,2	965	3260
24x3x0,50	29,7	36,9	466	1980
24x3x0,75	32,4	39,8	638	2315
24x3x1	35,5	43,9	811	2960
24x3x1,3	38,9	47,5	1019	3415
24x3x1,5	40,9	49,7	1157	3710

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