



# HALLEY CABLES

# RE-Yw(St)Yw-fl TIMF 105° C

## CU/PVC/ISCR/OSCR/PVC

### Instrumentation Cables PVC DK PVC 500 V

PVC insulated, screened, PVC sheathed cable

RE-Yw(St)Yw-fl-TIMF

### 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	: 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> .
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	: 7,5 x D.
Capacitance unbalance	: (1 kHz) : max. 500 pF/500 m.
Insulation resistance (20° C)	: 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.
Flame retardance test	: IEC 60332-1 & EN 60332-1.
Outer sheath	: EN 50290-2-22.

### Technical data and tests:

Conductor resistance (20° C)	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 (1kHz)	: ≤ 4 pairs	all other pairs
	0,50 mm <sup>2</sup> : max. 160 pF/m	max. 160 pF/m;
	0,75 mm <sup>2</sup> : max. 160 pF/m	max. 160 pF/m;
	1,0 mm <sup>2</sup> : max. 160 pF/m	max. 160 pF/m;
	1,3 mm <sup>2</sup> : max. 170 pF/m	max. 170 pF/m;
	1,5 mm <sup>2</sup> : max. 170 pF/m	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;	
	1,30 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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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
2x3x0,50	12,4	43	110
2x3x0,75	13,5	58	140
2x3x1	14,5	72	160
2x3x1,3	15,7	89	190
2x3x1,5	16,7	101	210
4x3x0,50	14,3	82	185
4x3x0,75	15,5	110	225
4x3x1	16,8	139	270
4x3x1,3	18,2	174	325
4x3x1,5	19,3	197	365
5x3x0,50	15,1	101	215
5x3x0,75	16,5	137	270
5x3x1	17,8	173	320
5x3x1,3	19,5	216	395
5x3x1,5	20,4	245	435
6x3x0,50	16,5	120	260
6x3x0,75	17,8	163	315
6x3x1	19,4	206	385
6x3x1,3	21,1	258	460
6x3x1,5	22,3	292	520
8x3x0,50	18,6	158	330
8x3x0,75	20,3	216	415
8x3x1	22,1	274	500
8x3x1,3	24,0	343	600
8x3x1,5	25,4	389	675
10x3x0,50	20,6	197	405
10x3x0,75	22,5	267	510
10x3x1	24,5	341	615
10x3x1,3	26,6	427	740
10x3x1,5	28,1	485	835
12x3x0,50	22,5	235	480
12x3x0,75	24,6	322	605
12x3x1	26,5	408	725
12x3x1,3	29,0	512	885
12x3x1,5	30,7	581	990
16x3x0,50	25,6	312	630
16x3x0,75	28,0	427	790

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No. of cores x cross section mm <sup>2</sup>	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
16x3x1	30,4	542	955
16x3x1,3	33,4	681	1165
16x3x1,5	35,2	773	1310
20x3x0,50	28,4	389	775
20x3x0,75	31,1	533	975
20x3x1	33,7	677	1180
20x3x1,3	37,0	850	1440
20x3x1,5	39,0	965	1615
24x3x0,50	30,9	466	920
24x3x0,75	33,8	638	1155
24x3x1	36,7	811	1405
24x3x1,3	40,3	1019	1715
24x3x1,5	42,5	1157	1920

