



# HALLEY CABLES

# RE-2X(St)YSWAY-fl 90° C

## CU/XLPE/OSCR/PVC/SWA/PVC

### Instrumentation Cables PVC DK PE 500 V

XLPE insulated, screened, armoured, PVC sheathed cable

RE-2X(St)YSWAY-fl



### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : XLPE compound, (RE-2X....).
- Core identification : black / blue / red cores are numbered (1-1-1, 2-2-2,...). Upon request: colour coded according to IEC60189-2.  
Other core configurations manufactured upon request.
- Triple : three conductors twisted to a triple.
- Lay-up : triples laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,50 mm<sup>2</sup>.
- Inner sheath : PVC compound, 90° C.
- Armour : galvanized round steel wire.
- Outer sheath : PVC compound, 90° 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 ~ + 90° C;  
installation : - 5° C ~ + 50° C.
- Min. bending radius : 10 x D.

### Standards:

- Design : DIN EN 50288-7.
- Conductor : IEC 60228 class 2;  
DIN EN 60228 class 2.
- Insulation : EN 50290-2-29.
- Inner/Outer sheath : EN 50290-2-22.
- Armour : EN 10257-1.
- Flame retardancy test : IEC 60332-1 & EN 60332-1.  
IEC 60332-3 & DIN EN 50266-2-4.

### 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.
- Insulation resistance (20° C) : min. 5000 MΩ/km.
- Mutual capacitance (1 kHz) : ≤ 4 pairs      all other pairs  
0,50 mm<sup>2</sup> : max. 100 pF/m, max. 65 pF/m;  
0,75 mm<sup>2</sup> : max. 100 pF/m, max. 65 pF/m;  
1,0 mm<sup>2</sup> : max. 100 pF/m, max. 65 pF/m;  
1,3 mm<sup>2</sup> : max. 100 pF/m, max. 75 pF/m;  
1,5 mm<sup>2</sup> : max. 100 pF/m, max. 75 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 instrument 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. The armour above the inner sheath protects the cable from mechanical shocks. These cables are 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 no x mm <sup>2</sup>	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
1x3x0,50	6,7	11,1	19	215
1x3x0,75	7,1	11,7	26	240
1x3x1	7,5	12,1	34	260
1x3x1,3	8,0	12,6	42	285
1x3x1,5	8,4	13,0	48	300
2x3x0,50	10,2	14,8	34	335
2x3x0,75	10,9	15,7	48	380
2x3x1	11,7	16,5	62	420
2x3x1,3	12,7	17,5	80	470
2x3x1,5	13,3	18,1	91	495
4x3x0,50	11,7	16,5	62	430
4x3x0,75	12,6	17,4	91	490
4x3x1	13,5	18,3	120	545
4x3x1,3	14,7	20,4	155	725
4x3x1,5	15,4	21,1	177	780
5x3x0,50	12,5	17,3	77	475
5x3x0,75	13,5	18,3	113	545
5x3x1	14,5	19,5	149	625
5x3x1,3	15,8	21,5	192	815
5x3x1,5	16,5	22,2	220	875
6x3x0,50	13,5	18,3	91	525
6x3x0,75	14,6	19,6	134	615
6x3x1	15,7	21,4	178	800
6x3x1,3	17,1	23,0	230	920
6x3x1,5	17,9	23,8	264	990
8x3x0,50	15,2	20,9	120	725
8x3x0,75	16,5	22,2	177	835
8x3x1	17,7	23,6	235	955
8x3x1,3	19,3	25,2	304	1095
8x3x1,5	20,3	26,2	350	1180
10x3x0,50	16,7	22,4	149	820
10x3x0,75	18,1	24,0	221	965
10x3x1	19,6	25,5	293	1095
10x3x1,3	21,3	27,4	379	1275
10x3x1,5	22,4	28,5	436	1380
12x3x0,50	18,1	24,0	178	920
12x3x0,75	19,6	25,5	264	1075

www.halleycables.com

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No. of cores x cross section no x mm <sup>2</sup>	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
12x3x1	21,2	27,3	350	1240
12x3x1,3	23,1	29,2	454	1435
12x3x1,5	24,7	31,7	523	1770
16x3x0,50	20,5	26,4	235	1095
16x3x0,75	22,3	28,4	350	1300
16x3x1	24,5	31,5	466	1705
16x3x1,3	26,8	33,8	604	1970
16x3x1,5	28,1	35,3	696	2155
20x3x0,50	22,6	28,7	293	1270
20x3x0,75	25,0	32,0	437	1715
20x3x1	27,1	34,3	581	1985
20x3x1,3	29,6	36,8	754	2305
20x3x1,5	31,1	38,5	868	2525
24x3x0,50	24,9	31,9	350	1640
24x3x0,75	27,2	34,4	523	1945
24x3x1	29,4	36,6	696	2240
24x3x1,3	32,1	39,5	903	2630

