



# HALLEY CABLES

# RE-2X(St)Y-fl

## CU/XLPE/OSCR/PVC

### Instrumentation Cables PVC DK-PE 300 V

XLPE insulated, collective screened, PVC sheathed cable



#### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : XLPE compound, (RE-2X....).
- Core identification : black / white cores numbered 1-1, 2-2,... Upon request: colour coded according to IEC 60189-2.
- 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>.
- Outer sheath : PVC compound, 90° 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 ~ + 90° C;  
installation : - 5° C ~ + 50° C.
- Min. bending radius : 7.5 x D.
- Insulation resistance : min. 5000 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 50290-2-29.
- Outer sheath : EN 50290-2-22.
- Flame retardancy : IEC 60332-1 & DIN 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 they are 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;  
1,50 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) :  $\leq 4$  pairs      all other pairs  
0,50 mm<sup>2</sup> : max. 115 pF/m,      max. 90 pF/m;  
0,75 mm<sup>2</sup> : max. 115 pF/m,      max. 90 pF/m;  
1,0 mm<sup>2</sup> : max. 115 pF/m,      max. 90 pF/m;  
1,3 mm<sup>2</sup> : max. 120 pF/m,      max. 105 pF/m;  
1,5 mm<sup>2</sup> : max. 120 pF/m,      max. 105 pF/m.

www.halleycables.com

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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
1x3x0,50	6,0	10,4	19	195
1x3x0,75	6,4	10,8	26	215
1x3x1	6,9	11,3	34	235
1x3x1,3	7,5	12,1	42	260
1x3x1,5	7,7	12,3	48	275
2x3x0,50	9,0	13,6	34	300
2x3x0,75	9,8	14,4	48	335
2x3x1	10,5	15,1	62	375
2x3x1,3	11,7	16,5	80	435
2x3x1,5	12,1	16,9	91	455
4x3x0,50	10,3	14,9	62	375
4x3x0,75	11,2	16,0	91	435
4x3x1	12,1	16,9	120	495
4x3x1,3	13,5	18,3	155	575
4x3x1,5	14,0	18,8	177	610
5x3x0,50	11,0	15,8	77	420
5x3x0,75	12,0	16,8	113	485
5x3x1	13,0	17,8	149	555
5x3x1,3	14,5	20,2	192	755
5x3x1,5	15,0	20,7	220	805
6x3x0,50	11,8	16,6	91	460
6x3x0,75	12,9	17,7	134	540
6x3x1	14,0	18,8	178	620
6x3x1,3	15,7	21,4	230	840
6x3x1,5	16,2	21,9	264	895
8x3x0,50	13,3	18,1	120	540
8x3x0,75	14,5	19,5	177	645
8x3x1	15,8	21,5	235	855
8x3x1,3	17,7	23,6	304	1015
8x3x1,5	18,4	24,3	350	1085
10x3x0,50	14,5	19,5	149	625
10x3x0,75	16,0	21,7	221	850
10x3x1	17,4	23,3	293	990
10x3x1,3	19,6	25,5	379	1170
10x3x1,5	20,3	26,2	436	1255
12x3x0,50	15,7	21,4	178	800
12x3x0,75	17,3	23,2	264	955
12x3x1	18,8	24,7	350	1110
12x3x1,3	21,2	27,3	454	1330

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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
12x3x1,5	22,0	28,1	523	1430
16x3x0,50	17,8	23,7	235	955
16x3x0,75	19,6	25,5	350	1145
16x3x1	21,4	27,5	466	1350
16x3x1,3	24,5	31,5	604	1825
16x3x1,5	25,4	32,4	696	1960
20x3x0,50	19,6	25,5	293	1095
20x3x0,75	21,6	27,7	437	1330
20x3x1	24,0	30,1	581	1605
20x3x1,3	27,1	34,3	754	2135
20x3x1,5	28,1	35,3	868	2300
24x3x0,50	21,2	27,3	350	1245
24x3x0,75	23,8	29,9	523	1540
24x3x1	26,1	33,1	696	2005
24x3x1,3	29,4	36,6	903	2420
24x3x1,5	30,5	37,7	1041	2610

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