



# HALLEY CABLES

# RE-2Y(St)H-PIMF 70° C

## CU/PE/ISCR/OSCR/LSZH

### Instrumentation Cables HFFR 300 V

PE insulated, individual & collective screened, HFFR sheathed cable



### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : PE compound (RE-2Y...).
- Core identification : black / white cores numbered 1-1, 2-2,... Upon request : colour coded according to IEC 60189-2.
- Pair : two conductors twisted to a pair.
- 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 : HFFR compound.
- 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 ~ + 70° C;  
installation : - 5° C ~ + 50° C.
- Insulation resistance : min. 5000 MΩ/km.
- Mutual capacitance (1 kHz) : max. 120 pF/m.
- Min. bending radius : 7,5 x D.

### Standards:

- Design : DIN EN 50288-7.
- Conductor : IEC 60228 class 2, DIN EN 60228 class 2.
- Insulation : EN 50290-2-23.
- Smoke density test : IEC 61034-2 & DIN EN 61034-2.
- Flame retardancy test : IEC 60332-1 & DIN EN 60332-1,  
IEC 60332-3 & DIN EN50266-2-4.
- Outer sheath : EN 50290-2-27.
- Halogen-free test : IEC 60754-1/2;  
DIN EN 50267-2.

### 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... These cables are used in the environments which must have no corrosive gases emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. 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.

### 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.

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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
2x2x0,50	9,1	34	85
2x2x0,75	9,9	43	100
2x2x1	10,9	53	115
2x2x1,3	12,1	64	135
2x2x1,5	12,4	72	145
4x2x0,50	10,5	62	125
4x2x0,75	11,6	82	155
4x2x1	12,6	101	180
4x2x1,3	14,2	123	225
4x2x1,5	14,7	139	245
5x2x0,50	11,4	77	150
5x2x0,75	12,4	101	180
5x2x1	13,6	125	220
5x2x1,3	15,2	153	265
5x2x1,5	15,7	173	286
6x2x0,50	12,2	91	170
6x2x0,75	13,6	120	215
6x2x1	14,7	149	255
6x2x1,3	16,6	183	315
6x2x1,5	17,1	206	345
8x2x0,50	13,9	120	220
8x2x0,75	15,2	158	270
8x2x1	16,7	197	330
8x2x1,3	18,7	242	400
8x2x1,5	19,5	274	445
10x2x0,50	15,2	149	265
10x2x0,75	16,9	197	335
10x2x1	18,3	245	400
10x2x1,3	20,7	302	490
10x2x1,5	21,7	341	545
12x2x0,50	16,6	178	315
12x2x0,75	18,2	235	390
12x2x1	20,0	293	470
12x2x1,3	22,6	361	585
12x2x1,5	23,4	408	640
16x2x0,50	18,7	235	400
16x2x0,75	20,8	312	505
16x2x1	22,8	389	615
16x2x1,3	25,8	480	760
16x2x1,5	26,7	542	830
20x2x0,50	20,8	293	490
20x2x0,75	23,0	389	620
20x2x1	25,3	485	755
20x2x1,3	28,6	600	935
20x2x1,5	29,8	677	1040
24x2x0,50	22,6	350	585
24x2x0,75	25,1	466	740
24x2x1	27,6	581	900
24x2x1,3	31,2	719	1110
24x2x1,5	32,5	811	1235

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