



# HALLEY CABLES

# RE-2X(St)H-MP

## Instrumentation Cables HFFR 300 V

### CU/XLPE/OSCR/LSZH

XLPE insulated, collective screened, HFFR sheathed cable

RE-2X(St)H MP

### 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.
- Pair : two conductors twisted in 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 ~ + 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 6022 class 2, DIN EN 60228 class 2.
- Insulation : EN 50290-2-29.
- Outer sheath : EN 50290-2-27.
- Flame test : IEC 60332-1 & DIN EN 60332-1,  
IEC 60332-3 & DIN EN50266-2-4.
- Halogen-free test : IEC 60754-1/2;  
DIN EN 50267-2.
- Smoke density test : IEC 61034-2 & DIN EN 61034-2.

### 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.

### 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.





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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
1x2x0,50	5,4	14	35
1x2x0,75	6,0	19	45
1x2x1	6,4	24	55
1x2x1,3	7,0	30	65
1x2x1,5	7,2	34	70
2x2x0,50	7,9	24	65
2x2x0,75	8,8	34	80
2x2x1	9,5	43	95
2x2x1,3	10,5	55	115
2x2x1,5	10,8	62	125
4x2x0,50	9,4	43	100
4x2x0,75	10,2	62	125
4x2x1	11,1	82	150
4x2x1,3	12,5	105	190
4x2x1,5	12,9	120	210
5x2x0,50	9,9	53	115
5x2x0,75	10,9	77	150
5x2x1	11,8	101	180
5x2x1,3	13,1	130	225
5x2x1,5	13,6	149	245
6x2x0,50	10,6	62	130
6x2x0,75	11,7	91	170
6x2x1	12,7	120	210
6x2x1,3	14,3	155	265
6x2x1,5	14,8	178	295
8x2x0,50	12,0	82	170
8x2x0,75	13,1	120	215
8x2x1	14,4	158	270
8x2x1,3	16,1	204	340
8x2x1,5	16,9	235	380
10x2x0,50	13,1	101	200
10x2x0,75	14,6	149	265
10x2x1	15,8	197	325
10x2x1,3	17,9	254	415
10x2x1,5	18,5	293	460
12x2x0,50	14,3	120	235
12x2x0,75	15,7	178	310
12x2x1	17,3	235	385
12x2x1,3	19,5	304	495
12x2x1,5	20,2	350	550
16x2x0,50	16,1	158	295
16x2x0,75	17,9	235	400
16x2x1	19,7	312	505
16x2x1,3	22,2	404	645
16x2x1,5	23,0	466	715
20x2x0,50	17,9	197	370
20x2x0,75	19,9	293	495
20x2x1	21,6	389	615
20x2x1,3	24,4	504	785
20x2x1,5	25,5	581	885
24x2x0,50	19,3	235	430
24x2x0,75	21,4	350	580
24x2x1	23,6	466	730
24x2x1,3	26,6	604	935
24x2x1,5	27,8	696	1055

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