



HALLEY CABLES

RE-2Y(St)HSWAH-MP

Instrumentation Cables HFFR 300 V

CU/PE/OSCR/LSZH/SWA/LSZH

PE insulated, collective screened, armoured, HFFR sheathed cable

www.halleycables.com



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.
Other core configurations manufactured upon request.
- Pair : two conductors twisted to a pair.
- Lay-up : pairs laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,50 mm².
- Inner sheath : HFFR compound.
- Armour : galvanized round steel wire.
- 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.
- Min. bending radius : 10 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 50290-2-23.
- Inner/Outer sheath: EN 50290-2-27.
- Armour : EN 10257-1.
- Flame test : IEC 60332-1 & DIN EN 60332-1;
IEC 60332-3 & DIN EN 50266-2-4.
- 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 mm² : 0,40 mm;
0,75 mm² : 0,40 mm;
1,0 mm² : 0,40 mm;
1,3 mm² : 0,45 mm;
1,50 mm² : 0,45 mm;
- Conductor resistance : 0,50 mm² : 36,7 Ω/km;
0,75 mm² : 25,0 Ω/km;
1,0 mm² : 18,5 Ω/km;
1,3 mm² : 14,2 Ω/km;
1,5 mm² : 12,3 Ω/km.
- L/R (ratio) (max) : 0,50 mm² : 25 μH/Ω;
0,75 mm² : 25 μH/Ω;
1,0 mm² : 25 μH/Ω;
1,3 mm² : 40 μH/Ω;
1,5 mm² : 40 μH/Ω.
- Mutual capacitance (1 kHz) : ≤ 4 pairs all other pairs
0,50 mm² : max. 115 pF/m, max. 90 pF/m;
0,75 mm² : max. 115 pF/m, max. 90 pF/m;
1,0 mm² : max. 115 pF/m, max. 90 pF/m;
1,3 mm² : max. 120 pF/m, max. 105 pF/m;
1,5 mm² : 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 ²	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
1x2x0,50	5,8	10,2	14	195
1x2x0,75	6,2	10,6	19	210
1x2x1	6,6	11,0	24	225
1x2x1,3	7,2	11,8	30	254
1x2x1,5	7,4	12,0	34	265
2x2x0,50	8,1	12,7	24	275
2x2x0,75	8,8	13,4	34	305
2x2x1	9,5	14,1	43	335
2x2x1,3	10,5	15,1	55	380
2x2x1,5	10,8	15,6	62	405
4x2x0,50	9,4	14,0	43	340
4x2x0,75	10,2	14,8	62	380
4x2x1	11,1	15,9	82	435
4x2x1,3	12,3	17,1	105	500
4x2x1,5	12,7	17,5	120	525
5x2x0,50	9,9	14,5	53	365
5x2x0,75	10,7	15,5	77	420
5x2x1	11,6	16,4	101	475
5x2x1,3	12,9	17,7	130	545
5x2x1,5	13,4	18,2	149	580
6x2x0,50	10,6	15,4	62	405
6x2x0,75	11,5	16,3	91	460
6x2x1	12,5	17,3	120	520
6x2x1,3	13,9	18,7	155	605
6x2x1,5	14,4	20,1	178	750
8x2x0,50	11,8	16,6	82	465
8x2x0,75	12,9	17,7	120	540
8x2x1	14,0	18,8	158	615
8x2x1,3	15,7	21,4	204	835
8x2x1,5	16,3	22,0	235	885
10x2x0,50	12,9	17,7	101	525
10x2x0,75	14,2	19,0	149	610
10x2x1	15,4	21,1	197	815
10x2x1,3	17,3	23,0	254	950
10x2x1,5	17,9	23,8	293	1025
12x2x0,50	13,9	18,7	120	575
12x2x0,75	15,3	21,0	178	790





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12x2x1	16,7	22,4	235	905
12x2x1,3	18,7	24,6	304	1075
12x2x1,5	19,4	25,3	350	1145
16x2x0,50	15,7	21,4	158	795
16x2x0,75	17,3	23,2	235	945
16x2x1	18,9	24,8	312	1085
16x2x1,3	21,2	27,3	404	1300
16x2x1,5	22,0	28,1	466	1390
20x2x0,50	17,3	23,2	197	915
20x2x0,75	19,1	25,0	293	1080
20x2x1	20,8	26,9	389	1265
20x2x1,3	23,4	29,5	504	1500
20x2x1,5	24,3	30,6	581	1630
24x2x0,50	18,7	24,6	235	1015
24x2x0,75	20,6	26,7	350	1225
24x2x1	22,6	28,7	466	1420
24x2x1,3	25,8	32,8	604	1920
24x2x1,5	26,8	33,8	696	2060

