



HALLEY CABLES

RE-2X(St)HSAWAH-PIMF 90° C CU/XLPE/ISCR/OSCR/LSZH/SWA/LSZH

Instrumentation Cables HFFR DK 500 V

XLPE insulated, screened, armoured HFFR sheathed cable



Construction:

- Conductor : plain copper wire, stranded.
- Insulation : XLPE compound (RE-2X...).
- Core identification : black / blue with numbered tape under the separator tape of the pair screen. Upon request: black / blue cores numbered 1-1, 2-2,...
- Pair : two conductors twisted to a pair.
- PIMF construction : polyester tape above the pair, AL-PES tape over solid tinned copper drain wire, 0,60 mm. Upon request: stranded 0,50 mm² copper drain wire.
- Lay-up : PIMF laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over stranded tinned copper drain wire 0,50 mm².
- Inner/outer sheath : HFFR compound
- Armour : galvanized round steel wire.
- Sheath colour : RAL 9005, black or RAL 5015, blue.
- Note : other core configurations manufactured upon request.

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.
- Insulation resistance : min. 5000 MΩ/km.

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 50290-2-27.
- Armour : EN 10257-1.

Applications:

These cables are used for transmission of analogue and digital signals in instrumentation and control systems in chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants, etc... These cables are used in 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:

- Mutual capacitance : max 100 pF/m.
- 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.

Standards:

- Flame test : IEC 60332-1 & EN 60332-1;
IEC 60332-3 & DIN EN 50266-2-4.
- Smoke density : IEC 61034-2 & DIN EN 61034-2.
- Halogen-free : IEC 60754-1/2 & DIN EN 50267-2.





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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
2x2x0,50	10,3	14,9	34	350
2x2x0,75	11,1	15,9	43	390
2x2x1	11,9	16,7	53	425
2x2x1,3	12,8	17,6	64	465
2x2x1,5	13,4	18,2	72	490
4x2x0,50	11,9	16,7	62	440
4x2x0,75	12,9	17,7	82	490
4x2x1	13,8	18,6	101	540
4x2x1,3	15,0	20,7	123	710
4x2x1,5	15,7	20,7	139	650
5x2x0,50	12,7	17,5	77	485
5x2x0,75	13,8	18,6	101	540
5x2x1	14,8	20,5	125	710
5x2x1,3	16,1	21,8	153	790
5x2x1,5	16,9	21,9	173	725
6x2x0,50	13,7	18,5	91	530
6x2x0,75	14,8	20,5	120	705
6x2x1	16,0	21,7	149	780
6x2x1,3	17,4	23,3	183	885
6x2x1,5	18,2	24,1	206	940
8x2x0,50	15,5	21,2	120	735
8x2x0,75	16,8	22,5	158	825
8x2x1	18,1	24,0	197	925
8x2x1,3	19,7	25,6	242	1040
8x2x1,5	20,7	26,8	274	1125
10x2x0,50	17,0	22,9	149	840
10x2x0,75	18,5	24,4	197	945
10x2x1	19,9	25,8	245	1055
10x2x1,3	21,8	27,9	302	1200
10x2x1,5	22,9	29,0	341	1285
12x2x0,50	18,4	24,3	178	930
12x2x0,75	20,0	25,9	235	1050
12x2x1	21,6	27,7	293	1190
12x2x1,3	24,0	30,1	361	1380
12x2x1,5	25,2	31,5	408	1495
16x2x0,50	20,9	27,0	235	1105
16x2x0,75	22,7	28,8	312	1260

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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
16x2x1	25,0	32,0	389	1690
16x2x1,3	27,3	34,5	480	1865
16x2x1,5	28,7	35,9	542	2000
20x2x0,50	23,5	29,6	293	1300
20x2x0,75	25,5	32,5	389	1670
20x2x1	27,6	34,8	485	1890
20x2x1,3	30,2	37,4	600	2140
20x2x1,5	31,7	39,1	677	2320
24x2x0,50	25,4	32,4	350	1691
24x2x0,75	27,7	34,9	466	1880
24x2x1	30,0	37,2	581	2115
24x2x1,3	33,2	40,6	719	2475
24x2x1,5	34,9	43,3	811	2945

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