



# HALLEY CABLES

## RE-2G(St)HSAWAH-CI FE180 MP 90° C

CU/SH/OSCR/LSZH/SWA/LSZH

Instrumentation Cables 500 V

Silicone insulated, collective screened, armoured, HFFR sheathed cable

RE-2G(St)HSAWAH-CI FE180



### Construction:

- Conductor : stranded copper wires, class 2.
- Insulation : special silicone rubber compound.
- 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 stranded tinned copper drain wire 0,50 mm<sup>2</sup>.
- Outer sheath : HFFR compound.
- Sheath colour : RAL 9005, black or RAL 5015, blue.
- Core identification : black / blue cores numbered 1-1, 2-2, ... Upon request colour coded according to IEC 60189-2.
- 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.

### Standards:

- Design : EN 50288-7.
- Conductor : IEC 60228 class 2,  
DIN EN 60228 class 2.
- Outer sheath : EN 50290-2-27.
- Flame test : IEC 60332-1 & DIN 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.
- Circ. integrity (CI) : IEC 60331, VDE 0472-814;  
BS 6387 cat. CWZ.

### Technical data and tests:

- Conductor resistance (20° C) : 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.
- Mutual capacitance (1 kHz) :  $\leq 4$  pairs all other pairs  
0,50 mm<sup>2</sup> : max. 150 pF/m; max. 100 pF/m;  
0,75 mm<sup>2</sup> : max. 150 pF/m; max. 100 pF/m;  
1,0 mm<sup>2</sup> : max. 150 pF/m; max. 100 pF/m;  
1,3 mm<sup>2</sup> : max. 165 pF/m; max. 120 pF/m;  
1,5 mm<sup>2</sup> : max. 165 pF/m. max. 120 pF/m.
- 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.
- Insulation resistance (20° C) : min. 300 MΩ/km.

**\*Special Design** : **Sunlight resistance** : (UL 1581 section 1200) **\*(See page 3)**  
**Oil resistance** : (ICEA S-82-552)

### 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 a fixed operating mode, and can continue the supply of power under existing fire conditions and in environments which have no corrosive gases emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames and 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.



**HALLEY CABLES**

# RE-2G(St)HSWAH-CI FE180 MP 90° C

**CU/SH/OSCR/LSZH/SWA/LSZH****Instrumentation Cables 500 V**

Silicone insulated, collective screened, armoured, HFFR sheathed cable

www.halleycables.com

## 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
1x2x0,50	6,6	11,0	14	220
1x2x0,75	7,2	11,8	19	250
1x2x1	7,4	12,0	24	260
1x2x1,3	7,8	12,4	30	280
1x2x1,5	8,0	12,6	34	290
2x2x0,50	9,5	14,1	24	325
2x2x0,75	10,5	15,1	34	365
2x2x1	10,8	15,6	43	390
2x2x1,3	11,5	16,3	55	425
2x2x1,5	11,9	16,7	62	445
4x2x0,50	11,1	15,9	43	410
4x2x0,75	12,3	17,1	62	470
4x2x1	12,7	17,5	82	505
4x2x1,3	13,5	18,3	105	555
4x2x1,5	14,0	18,8	120	585
5x2x0,50	11,6	16,4	53	445
5x2x0,75	12,9	17,7	77	515
5x2x1	13,4	18,2	101	550
5x2x1,3	14,2	19,2	130	620
5x2x1,5	14,7	19,7	149	655
6x2x0,50	12,5	17,3	62	485
6x2x0,75	13,9	18,7	91	570
6x2x1	14,4	19,4	120	620
6x2x1,3	15,4	21,1	155	790
6x2x1,5	15,8	21,5	178	835
8x2x0,50	14,0	18,8	82	565
8x2x0,75	15,7	21,4	120	785
8x2x1	16,3	22,0	158	840
8x2x1,3	17,4	23,3	204	945
8x2x1,5	17,9	23,8	235	1000
10x2x0,50	15,4	21,1	101	750
10x2x0,75	17,3	23,2	149	895
10x2x1	17,9	23,8	197	970
10x2x1,3	19,1	25,0	254	1080
10x2x1,5	19,8	25,7	293	1145
12x2x0,50	16,7	22,4	120	830
12x2x0,75	18,7	24,6	178	995
12x2x1	19,4	25,3	235	1080
12x2x1,3	20,7	26,8	304	1225
12x2x1,5	21,4	27,5	350	1300

RE-2G(St)HSWAH-CI FE180 MP 90° C



**HALLEY CABLES****RE-2G(St)HSWAH-CI FE180 MP 90° C****CU/SH/OSCR/LSZH/SWA/LSZH****Instrumentation Cables 500 V**

Silicone insulated, collective screened, armoured, HFFR sheathed cable

www.halleycables.com

**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
16x2x0,50	18,9	24,8	158	990
16x2x0,75	21,2	27,3	235	1195
16x2x1	22,0	28,1	312	1305
16x2x1,3	24,0	30,1	404	1510
16x2x1,5	24,8	31,8	466	1785
20x2x0,50	20,8	26,9	197	1145
20x2x0,75	23,4	29,5	293	1375
20x2x1	24,7	31,7	389	1720
20x2x1,3	26,5	33,5	504	1940
20x2x1,5	27,3	34,5	581	2075
24x2x0,50	22,6	28,7	235	1280
24x2x0,75	25,8	32,1	350	1600
24x2x1	26,8	33,8	466	1930
24x2x1,3	28,7	35,9	604	2200
24x2x1,5	29,7	36,9	696	2345

**Special Design : Sunlight resistance** : (UL 1581 section 1200)  
**Oil resistance** : (ICEA S-82-552)

**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
1X2X1	7,0	11,7	24	280
2X2X1	10,9	15,8	44	458
4X2X1	12,2	17,1	83	559
6X2X1	15,5	21,3	122	873
10X2X1	18,2	24,9	201	1255
16X2X1	22,7	29,8	319	1721
32X2X1	31,4	39,9	633	3044
1x2x1,5	7,6	12,3	34	311
2X2X2,5	14,2	20,0	97	757
10X2X2,5	24,4	31,7	467	1989

**RE-2G(St)HSWAH-CI FE180 MP 90° C**