



# HALLEY CABLES

## RE-2G(St)H-CI FE180 90° C

### CU/SH/OSCR/LSZH

#### Instrumentation Cables 500 V

Silicone insulated, collective screened, HFFR sheathed cable

**RE-2G(St)H-CI FE180**



### Construction:

- Conductor : stranded copper wires, class 2.
- Insulation : special silicone rubber compound.
- Triple : three conductors twisted to a triple.
- Lay-up : triples 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 / red cores numbered 1-1-1, 2-2-2,... 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: 7.5 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.

### 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.

### 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.
- Insulation resistance (20° C) : min. 300 MΩ/km.
- Mutual capacitance (1 kHz) : max. 100 pF/m.
- Capacitance unbalanced : max. 500 pF/500 m (1 kHz).
- L / R (ratio) (max.) :  $\leq 4$  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.

www.halleycables.com

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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
1x3x0,50	6,7	19	60
1x3x0,75	7,3	26	70
1x3x1	7,5	34	80
1x3x1,3	8,1	42	95
1x3x1,5	8,4	48	100
2x3x0,50	10,5	34	105
2x3x0,75	11,9	48	135
2x3x1	12,3	62	155
2x3x1,3	13,1	80	180
2x3x1,5	13,7	91	200
4x3x0,50	12,3	62	170
4x3x0,75	13,9	91	225
4x3x1	14,4	120	260
4x3x1,3	15,3	155	305
4x3x1,5	15,8	177	335
5x3x0,50	13,2	77	200
5x3x0,75	14,9	113	270
5x3x1	15,4	149	310
5x3x1,3	16,6	192	375
5x3x1,5	17,1	220	410
6x3x0,50	14,4	91	240
6x3x0,75	16,3	134	320
6x3x1	16,8	178	365
6x3x1,3	17,9	230	440
6x3x1,5	18,5	264	480
8x3x0,50	16,4	120	310
8x3x0,75	18,3	177	405
8x3x1	19,2	235	480
8x3x1,3	20,5	304	570
8x3x1,5	21,1	350	625
10x3x0,50	18,0	149	375
10x3x0,75	20,4	221	500
10x3x1	21,1	293	580
10x3x1,3	22,7	379	705
10x3x1,5	23,4	436	770
12x3x0,50	19,6	178	445
12x3x0,75	22,2	264	595
12x3x1	23,0	350	690
12x3x1,3	24,7	454	840
12x3x1,5	25,5	523	920
16x3x0,50	22,4	235	580
16x3x0,75	25,3	350	775
16x3x1	26,2	466	900
16x3x1,3	28,2	604	1095

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No. of cores x cross section mm <sup>2</sup>	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
16x3x1,5	29,1	696	1205
20x3x0,50	24,8	293	710
20x3x0,75	28,1	437	955
20x3x1	29,1	581	1110
20x3x1,3	31,3	754	1350
20x3x1,5	32,5	868	1500
24x3x0,50	27,1	350	845
24x3x0,75	30,6	523	1135
24x3x1	31,7	696	1320
24x3x1,3	34,1	903	1605
24x3x1,5	35,4	1041	1785

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