RE-2G(St)HSWAH-CI FE180 90° C

CU/SH/OSCR/LSZH/SWA/LSZH

Instrumentation Cables 500 V

Silicone insulated, collective screened, armoured, HFFR sheathed cable

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 mm².
Inner sheath	: HFFR compound.
Armour	: galvanized round steel wire.
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	: 10 x D.

Standards:

Design	: EN 50288-7.
Conductor	: IEC 60228 class 2, DIN EN 60228 class 2.
Inner sheath	: EN 50290-2-27.
Armour	: EN 10257-1.
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 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.	
Mutual capacitance (1 kHz)	: ≤ 4 pairs	all other pairs
	0,50 mm² : max. 150 pF/m;	max. 100 pF/m;
	0,75 mm² : max. 150 pF/m;	max. 100 pF/m;
	1,0 mm² : max. 150 pF/m;	max. 100 pF/m;
	1,3 mm² : max. 165 pF/m;	max. 120 pF/m;
	1,5 mm² : max. 165 pF/m.	max. 120 pF/m.
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.	
Insulation resistance (20° C)	: min. 300 MΩ/km.	
Capacitance unbalanced	: max. 500 pF/500 m (1 kHz).	

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

*(See page 3)

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.

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HALLEY CABLES

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www.halleycables.com

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DIMENSIONS

No. of cores x cross section mm²	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
1x3x0,50	6,9	11,3	19	235
1x3x0,75	7,5	12,1	26	270
1x3x1	7,7	12,3	34	285
1x3x1,3	8,1	12,7	42	305
1x3x1,5	8,4	13,0	48	320
2x3x0,50	10,5	15,3	34	380
2x3x0,75	11,7	16,5	48	430
2x3x1	12,1	16,9	62	460
2x3x1,3	12,9	17,7	80	500
2x3x1,5	13,3	18,1	91	525
4x3x0,50	12,1	16,9	62	475
4x3x0,75	13,5	18,3	91	555
4x3x1	14,0	18,8	120	600
4x3x1,3	14,9	20,6	155	775
4x3x1,5	15,4	21,1	177	820
5x3x0,50	13,0	17,8	77	525
5x3x0,75	14,5	19,5	113	630
5x3x1	15,0	20,7	149	785
5x3x1,3	16,0	21,7	192	870
5x3x1,5	16,5	22,2	220	920
6x3x0,50	14,0	18,8	91	580
6x3x0,75	15,7	21,4	134	805
6x3x1	16,2	21,9	178	870
6x3x1,3	17,3	23,2	230	980
6x3x1,5	17,9	23,8	264	1040
8x3x0,50	15,8	21,5	120	800
8x3x0,75	17,7	23,6	177	960
8x3x1	18,4	24,3	235	1045
8x3x1,3	19,7	25,6	304	1175
8x3x1,5	20,3	26,2	350	1250
10x3x0,50	17,4	23,3	149	920
10x3x0,75	19,6	25,5	221	1100
10x3x1	20,3	26,2	293	1200
10x3x1,3	21,7	27,8	379	1370
10x3x1,5	22,4	28,5	436	1460
12x3x0,50	18,8	24,7	178	1025
12x3x0,75	21,2	27,3	264	1245
12x3x1	22,0	28,1	350	1365
12x3x1,3	23,9	30,0	454	1580
12x3x1,5	24,7	31,7	523	1865

IEC CE VDE RoHS PG TSE

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No. of cores x cross section mm²	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
16x3x0,50	21,4	27,5	235	1235
16x3x0,75	24,1	30,2	350	1495
16x3x1	25,4	32,4	466	1870
16x3x1,3	27,2	34,4	604	2130
16x3x1,5	28,1	35,3	696	2275
20x3x0,50	24,0	30,1	293	1455
20x3x0,75	27,1	34,3	437	1985
20x3x1	28,1	35,3	581	2180
20x3x1,3	30,1	37,3	754	2475
20x3x1,5	31,1	38,5	868	2665
24x3x0,50	26,1	33,1	350	1825
24x3x0,75	29,4	36,6	523	2235
24x3x1	30,5	37,7	696	2460
24x3x1,3	32,7	40,1	903	2830
24x3x1,5	34,2	42,6	1041	3360

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

DIMENSIONS

No. of cores x cross section mm²	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
1x3x1	7,4	12,1	34	311
1x3x1,5	8,2	12,9	49	355

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