RE-2G(St)H-CI-PIMF FE180 90° C

CU/SH/ISCR/OSCR/LSZH

Instrumentation Cables 500 V

Silicone insulated, individual & collective screened, HFFR sheathed cable

Construction:

Conductor	: stranded copper wires, class 2.
Insulation	: special silicone rubber compound.
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.
Outer sheath	: HFFR compound.
Sheath colour	: RAL 9005, black or RAL 5015, blue.
Core identification	: black/blue with numbered tape under the separator tape of the pair screen. Upon req. black/blue cores numbered 1-1, 2-2.
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.	

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.
Insulation resistance (20° C)	: min. 300 MΩ/km.
Mutual capacitance (1 kHz)	: max. 150 pF/m.
L / R (ratio) (max.)	: 0,50 mm² : max. 25 µH/Ω; 0,75 mm² : max. 25 µH/Ω; 1,0 mm² : max. 25 µH/Ω; 1,3 mm² : max. 40 µH/Ω; 1,5 mm² : max. 40 µH/Ω.

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.

DIMENSIONS

No. of cores x cross section mm²	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
2x2x0,50	33,6	34	101
2x2x0,75	12,1	43	121
2x2x1	12,4	53	133
2x2x1,3	13,2	64	151
2x2x1,5	13,8	72	169
4x2x0,50	62,4	62	155
4x2x0,75	14,2	82	197
4x2x1	14,7	101	219
4x2x1,3	15,6	123	253
4x2x1,5	16,1	139	272
5x2x0,50	76,8	77	189
5x2x0,75	15,2	101	232
5x2x1	15,7	125	259
5x2x1,3	16,9	153	308
5x2x1,5	17,5	173	333
6x2x0,50	91,2	91	217
6x2x0,75	16,6	120	276
6x2x1	17,1	149	309
6x2x1,3	18,3	183	358
6x2x1,5	19,0	206	396
8x2x0,50	120	120	280
8x2x0,75	18,7	158	347
8x2x1	19,5	197	400
8x2x1,3	20,8	242	465
8x2x1,5	21,7	274	513
10x2x0,50	148,8	149	335
10x2x0,75	20,7	197	427
10x2x1	21,7	245	492
10x2x1,3	23,1	302	572
10x2x1,5	23,9	341	620
12x2x0,50	177,6	178	399
12x2x0,75	22,6	235	508
12x2x1	23,4	293	573
12x2x1,3	25,2	361	680
12x2x1,5	26,0	408	737
16x2x0,50	235,2	235	516
16x2x0,75	25,8	312	658
16x2x1	26,7	389	744
16x2x1,3	28,7	480	884
16x2x1,5	29,9	542	974

DIMENSIONS

No. of cores x cross section mm²	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
20x2x0,50	292,8	293	634
20x2x0,75	28,6	389	809
20x2x1	29,8	485	930
20x2x1,3	31,9	600	1087
20x2x1,5	33,1	677	1197
24x2x0,50	350,4	350	753
24x2x0,75	31,2	466	960
24x2x1	32,5	581	1104
24x2x1,3	34,8	719	1291
24x2x1,5	36,1	811	1421

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