RE-2X(St)H-PiMF/TiMF



Areas of Use

Used for communication and instrumentation purposes in industries like oil exploration, cement, paper, steel, power generation as well as in intrinsically safe systems in hazardous areas like petrochemical plants and thermal power plants to monitor measuring equipment in process automation applications. HFFR types are less flammable in case of fire, mostly self-extinguishing, have low smoke density and they do not emit poisonous and corrosive gasses during a fire.

Cable Construction

Conductor	Stranded Annealed Copper (IEC/EN 60228, Class 2)
Insulation	XLPE (EN 50290-2-29)
Core Colors	Pair: Black / White, Numbered Triples: Balck / White / Red, Numbered Quad: Black / White / Red / Blue, Numbered
Separator	PET Foil
Individual Screen	Al-PET Foil (with 0.60 mm Tinned Copper Drain Wire)
Lay-up	Shielded pairs / triples / quads are stranded in layers
Separator	PET Foil
Overall Screen	Al-PET Foil (with 7x0.3 mm Tinned Copper Drain Wire)
Outer Sheath	Halogen Free Flame Retardant Compound (HFFR /LSZH/LSOH/FRNC) (EN 50290-2-27), RAL 9005 - Black, RAL 5015 - Blue (other colors upon request)
Reference Standards	BS/EN 50288-7

Technical Properties

Operating Voltage	500 V*
Test Voltage	Core - Core: 2000 V; Core - Screen: 1000 V
Conductor Resistance	0.50 mm² - ≤36 Ω/km; 0.75 mm² - ≤24.5 Ω/km; 1.00 mm² - ≤18.1 Ω/km; 1.30 mm² - ≤14.2 Ω/km; 1.50 mm² - ≤12.1 Ω/km; 2.50 mm² - ≤7.41 Ω/km
Insulation Resistance	>5000 M.Ωxkm
Capacitance Unbalance (800 Hz)	≤500 pF/500m
Capacitance (@800Hz)	≤115 nF/km (Capacitance values may increase by 20% up to 4 pairs)
L/R Ratio	0.50 mm²..1.00 mm² - ≤25 µH/Ω; 1.30 mm²..1.50 mm² - ≤40 µH/Ω; 2.50 mm² - ≤60 µH/Ω
Temperature Range	Fixed: -40 °C .....+90 °C, Flexible: -5 °C .....+50 °C
Flame Retardancy	IEC/EN 60332-1, IEC/EN 60332-3-24 (CAT C)
Smoke Density	IEC/EN 61034-1
Amount of Halogen Acid Gas	IEC/EN 60754-1
Corrosive Gases Measurement	IEC/EN 60754-2
Oil Resistance	IEC/EN 60811-404, ASTM No 2 oil 70 °C 4 hours
Min. Bending Radius (Fixed)	8 x Cable Diameter

Cross Section

Configuration / Cross-Section (mm/mm²)	Cable Diameter (mm) (± 5%)	Copper Weight (kg / km)	~ Cable Weight (kg / km)
1x2x0.5	5.7	14	52
2x2x0.5	9.4	29	109
3x2x0.5	9.9	42	132
4x2x0.5	11.0	54	163
5x2x0.5	12.1	66	194
6x2x0.5	13.1	78	224
7x2x0.5	13.1	91	243
8x2x0.5	14.9	103	286
10x2x0.5	17.0	127	349
12x2x0.5	17.6	152	399
14x2x0.5	18.5	177	446
16x2x0.5	19.7	201	502
18x2x0.5	20.8	226	559
20x2x0.5	22.1	250	618
24x2x0.5	24.7	299	740
30x2x0.5	26.2	373	881
1x2x0.75	6.2	19	61
2x2x0.75	10.3	39	128
3x2x0.75	11.0	57	163
4x2x0.75	12.0	74	197
5x2x0.75	13.3	91	236
6x2x0.75	14.6	108	278
7x2x0.75	14.6	126	303
8x2x0.75	16.6	143	357
10x2x0.75	18.9	177	436
12x2x0.75	19.6	212	500
14x2x0.75	20.7	246	569
16x2x0.75	22.0	281	640
18x2x0.75	23.3	315	713
20x2x0.75	24.7	350	788
24x2x0.75	27.6	419	941
30x2x0.75	29.3	523	1125
1x2x1	6.5	24	68
2x2x1	10.8	49	143
3x2x1	11.6	72	185
4x2x1	12.8	94	229
5x2x1	14.1	117	276
6x2x1	15.5	139	324
7x2x1	15.5	161	355
8x2x1	17.5	184	411
10x2x1	20.0	228	509
12x2x1	20.8	273	586
14x2x1	21.9	318	661
16x2x1	23.2	363	744
18x2x1	24.6	407	830

20x2x1	26.1	452	917
24x2x1	29.3	541	1107
30x2x1	31.1	676	1328
1x2x1.3	7.0	30	80
2x2x1.3	11.6	61	167
3x2x1.3	12.4	89	214
4x2x1.3	13.7	118	267
5x2x1.3	15.1	146	321
6x2x1.3	16.6	174	378
7x2x1.3	16.6	202	416
8x2x1.3	18.8	231	480
10x2x1.3	21.5	287	597
12x2x1.3	22.4	344	687
14x2x1.3	23.6	400	784
16x2x1.3	25.1	456	883
18x2x1.3	26.6	513	985
20x2x1.3	28.2	569	1088
24x2x1.3	31.5	682	1300
30x2x1.3	33.6	852	1574
1x2x1.5	7.2	33	85
2x2x1.5	12.0	68	176
3x2x1.5	12.8	99	228
4x2x1.5	14.2	131	285
5x2x1.5	15.6	162	343
6x2x1.5	17.2	193	404
7x2x1.5	17.2	225	445
8x2x1.5	19.5	256	521
10x2x1.5	22.4	319	647
12x2x1.5	23.1	382	738
14x2x1.5	24.4	445	841
16x2x1.5	25.9	508	949
18x2x1.5	27.5	571	1058
20x2x1.5	29.2	634	1180
24x2x1.5	32.7	760	1409
30x2x1.5	34.8	948	1708
1x2x2.5	8.5	51	117
2x2x2.5	14.3	103	246
3x2x2.5	15.3	152	323
4x2x2.5	16.9	201	406
5x2x2.5	18.7	250	491
6x2x2.5	20.7	299	586
7x2x2.5	20.7	348	648
8x2x2.5	23.5	397	756
10x2x2.5	26.9	495	937
12x2x2.5	28.0	593	1084
14x2x2.5	29.5	691	1238

16x2x2.5	31.3	789	1397
18x2x2.5	33.3	887	1569
20x2x2.5	35.3	985	1734
24x2x2.5	39.6	1181	2082
30x2x2.5	42.2	1475	2525

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