

ICON[®] Instrumentation Cable Fire Resistant (CI), Flame Retardant

EN 50288-7
90 °C / 500 V

Single & Multi-pair, XLPE-Insulation, Individual & Collective Screen, LSZH-Sheath

RE-2X(St)H CI PiMF

Application

For transmission of analogue and digital signals in instrument and control systems; allowed for use in zone 1 and zone 2 group II classified areas (IEC 60079-14); not allowed for direct connection to low impedance source, e.g. the public mains electricity supply.
Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations; not for direct burial.
Recommended for use as fire protection measure for people and important material assets.

Construction

Conductor.....	plain annealed copper, 7 stranded, size, 0.5 mm ² , 0.75 mm ² , 1 mm ² , 1.3 mm ² , 1.5 mm ²
Insulation.....	cross-linked polyethylene XLPE over the MICA-tape wrapped conductor
Colour code.....	black / blue, continuously numbered on blue core (1, 2..) for multipair
Individual screen.....	24 µm aluminium PETP tape over stranded tinned copper drain wire, 0.3 mm ² , plastic tape under and above screen with numbered tape under separator tape of the individual screen
Wrapping.....	at least 1 layer of plastic tape
Collective screen.....	24 µm aluminium PETP tape over 7-stranded tinned copper drain wire, 0.5 mm ²
Outer sheath.....	zero halogen flame retardant compound LSZH, black; blue for intrinsically safe systems
Cable marking.....	LEONI KERPEN ICON INSTRUMENTATION CABLE CI 500 V LSZH GEN. TO EN 50288-7 CE PLC LM



Technical data

Flame propagation	
Test on single cable	IEC 60332-1-2
Test on bunched cables	IEC 60332-3-24 (Cat. C)
Circuit Integrity	IEC 60331-21
Amount of halogen acid gas	IEC 60754-1 (0%)
Degree of acidity of gases	IEC 60754-2 (pH > 4.3, C < 10µS/mm)
Smoke density	IEC 61034-2 (L.T. > 60%)
Sunlight resistance	UL 1581 section 1200
Oil resistance	ICEA S-73-532*

Temperature range:
-30 °C up to 90 °C (during operation)
-5 °C up to 50 °C (during installation)
Min. bending radius:
7.5 x cable-Ø

Abbreviations

RE-	Instrumentation Cable
2X	insulation of XLPE
(St)	collective screen
H	LSZH Sheath
CI	circuit integrity
PiMF	pair in metal foil
PLC	Production Lot Code
LM	Length Marking

Electrical data at 20 °C

	nom.	mm ²	0.5	0.75	1	1.3	1.5
Conductor	nom.	mm ²	0.5	0.75	1	1.3	1.5
Conductor resistance	max.	Ω/km	36.7	25.0	18.5	14.2	12.3
Insulation resistance	min.	MΩ x km	5000				
Mutual capacitance	max.	nF/km	100				
Inductance	max.	mH/km	1				
L/R (ratio)	max.	µH/Ω	25	25	25	40	40
Test voltage U _{rms} (core : core)		V	2000				
Test voltage U _{rms} (core : screen)		V	2000				
Operating voltage		V	500				

*(Test temperature + 60 °C; duration 4 h. Retention: min. 60 % of tensile strength/min. 60 % of elongation)

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Geometrical data					
No. of elem.	Ø core approx. mm	RT of outer sheath nom. mm	Overall diameter approx. mm	Cable weight approx. kg/km	Part. No. Colour black
0.5 mm²/7					
2	2.63	1.1	12.6	139	7558F166
4	2.63	1.2	15.2	205	7558F169
5	2.63	1.3	16.9	246	7558F172
6	2.63	1.3	18.3	289	7558F175
8	2.63	1.4	19.7	354	7558F178
10	2.63	1.5	22.6	444	7558F181
12	2.63	1.5	23.7	512	7558F184
16	2.63	1.7	27.2	648	7558F187
20	2.63	1.8	30.1	788	7558F190
24	2.63	1.9	32.8	945	7558F193
0.75 mm²/7					
2	2.91	1.1	13.6	158	7558F196
4	2.91	1.2	16.3	227	7558F199
5	2.91	1.2	18.0	281	7558F202
6	2.91	1.3	19.8	343	7558F205
8	2.91	1.4	21.3	408	7558F208
10	2.91	1.5	24.4	515	7558F211
12	2.91	1.5	25.6	588	7558F214
16	2.91	1.6	29.2	767	7558F217
20	2.91	1.7	32.3	933	7558F220
24	2.91	1.8	35.2	1119	7558F223
1 mm²/7					
2	3.29	1.2	15.7	172	7558F226
4	3.29	1.3	17.9	261	7558F229
5	3.29	1.4	20.0	315	7558F232
6	3.29	1.5	22.0	381	7558F235
8	3.29	1.5	23.5	460	7558F238
10	3.29	1.7	27.2	590	7558F241
12	3.29	1.7	28.5	665	7558F244
16	3.29	1.9	32.7	883	7558F247
20	3.29	2.0	36.3	1074	7558F250
24	3.29	2.1	39.5	1286	7558F253
1.3 mm²/7					
2	3.47	1.3	16.5	190	7558F256
4	3.47	1.3	18.7	313	7558F259
5	3.47	1.4	20.8	365	7558F262
6	3.47	1.5	22.9	429	7558F265
8	3.47	1.6	24.6	532	7558F268
10	3.47	1.7	28.3	668	7558F271
12	3.47	1.8	29.9	768	7558F274
16	3.47	1.9	34.1	1005	7558F277
20	3.47	2.1	38.0	1227	7558F280
24	3.47	2.2	41.4	1487	7558F283

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Geometrical data					
No. of elem.	Ø core approx. mm	RT of outer sheath nom. mm	Overall diameter approx. mm	Cable weight approx. kg/km	Part. No. Colour black
1.5 mm²/7					
2	3.59	1.3	16.9	204	7558F286
4	3.59	1.4	19.4	317	7558F289
5	3.59	1.4	21.3	393	7558F292
6	3.59	1.5	23.5	472	7558F295
8	3.59	1.6	25.3	582	7558F298
10	3.59	1.7	29.1	725	7558F301
12	3.59	1.8	30.7	834	7558F304
16	3.59	2.0	35.2	1092	7558F307
20	3.59	2.1	39.1	1350	7558F310
24	3.59	2.2	42.6	1616	7558F313

RT = Radial Thickness