

ICON[®] Instrumentation Cable Zero Halogen, Flame Retardant

EN 50288-7
90 °C / 300 V

Multi-Pair, XLPE-Insulation, Individual & Collective Screen, LSZH-Sheath

RE-2X(St)H 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
Colour code.....	black / white, continuously numbered on white core (1, 2..) for multipair
Individual screen.....	24 µm aluminium PETP tape over solid tinned copper drain wire, 0.6 mm Ø, plastic tape under and above 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 300 V LSZH 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)
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
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	115				
Inductance	max.	mH/km	1				
L/R (ratio)	max.	µH/Ω	25	25	25	40	40
Test voltage U _{rms} (core : core)		V	1500				
Test voltage U _{rms} (core : screen)		V	1500				
Operating voltage		V	300				

*(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.	RT of insulation nom. 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	0.35	0.9	8.7	85	7076E166
4	0.35	1.0	10.2	120	7076E169
5	0.35	1.0	11.2	145	7076E172
6	0.35	1.0	12.1	170	7076E175
8	0.35	1.1	13.1	214	7076E178
10	0.35	1.2	15.1	265	7076E181
12	0.35	1.2	15.7	286	7076E184
16	0.35	1.2	17.8	380	7076E187
20	0.35	1.3	19.7	475	7076E190
24	0.35	1.4	21.5	561	7076E193
0.75 mm²/7					
2	0.38	1.0	9.7	101	7076E196
4	0.38	1.0	11.2	159	7076E199
5	0.38	1.1	12.5	183	7076E202
6	0.38	1.1	13.6	215	7076E205
8	0.38	1.1	14.4	272	7076E208
10	0.38	1.2	16.6	333	7076E211
12	0.38	1.2	17.4	383	7076E214
16	0.38	1.3	19.8	492	7076E217
20	0.38	1.4	22.0	603	7076E220
24	0.38	1.5	24.0	704	7076E223
1 mm²/7					
2	0.4	1.0	10.4	112	7076E226
4	0.4	1.0	12.1	179	7076E229
5	0.4	1.1	13.5	220	7076E232
6	0.4	1.1	14.7	256	7076E235
8	0.4	1.2	15.8	323	7076E238
10	0.4	1.2	18.0	401	7076E241
12	0.4	1.3	19.0	454	7076E244
16	0.4	1.3	21.5	601	7076E247
20	0.4	1.4	23.9	719	7076E250
24	0.4	1.5	26.1	884	7076E253
1.3 mm²/7					
2	0.45	1.0	11.4	153	7076E256
4	0.45	1.1	13.4	208	7076E259
5	0.45	1.1	14.8	263	7076E262
6	0.45	1.2	16.3	318	7076E265
8	0.45	1.3	17.6	406	7076E268
10	0.45	1.3	20.0	501	7076E271
12	0.45	1.4	21.1	552	7076E274
16	0.45	1.5	24.1	728	7076E277
20	0.45	1.6	26.8	892	7076E280
24	0.45	1.7	29.2	1067	7076E283

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1.5 mm²/7					
2	0.45	1.0	11.8	164	7076E286
4	0.45	1.1	13.9	235	7076E289
5	0.45	1.2	15.5	289	7076E292
6	0.45	1.2	16.9	366	7076E295
8	0.45	1.3	18.2	446	7076E298
10	0.45	1.4	21.0	565	7076E301
12	0.45	1.4	21.9	637	7076E304
16	0.45	1.5	25.1	828	7076E307
20	0.45	1.6	27.8	1024	7076E310
24	0.45	1.7	30.4	1219	7076E313

RT = Radial Thickness