

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

EN 50288-7
90 °C / 500 V

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

RE-2X(St)H CI TIMF

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 / red, continuously numbered on blue core (1, 2..) for multitruples
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
TIMF	triple 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	Part. No. Colour black	
0.5 mm²/7					
2	2.93	1.2	15.4	7558F481	
4	2.93	1.3	18.0	7558F484	
5	2.93	1.4	20.2	7558F487	
6	2.93	1.5	23.0	7558F490	
8	2.93	1.6	24.8	7558F493	
10	2.93	1.7	28.3	7558F496	
12	2.93	1.7	29.3	7558F499	
16	2.93	1.9	33.6	7558F502	
20	2.93	2.0	37.3	7558F505	
24	2.93	2.2	40.8	7558F508	
0.75 mm²/7					
2	3.11	1.3	16.3	7558F511	
4	3.11	1.4	19.0	7558F514	
5	3.11	1.4	21.1	7558F517	
6	3.11	1.5	24.1	7558F520	
8	3.11	1.6	26.0	7558F523	
10	3.11	1.8	29.8	7558F526	
12	3.11	1.8	30.9	7558F529	
16	3.11	2.0	35.4	7558F532	
20	3.11	2.1	39.3	7558F535	
24	3.11	2.2	42.8	7558F538	
1 mm²/7					
2	3.29	1.3	17.0	7558F541	
4	3.29	1.4	19.8	7558F544	
5	3.29	1.5	22.2	7558F547	
6	3.29	1.6	25.3	7558F550	
8	3.29	1.7	27.4	7558F553	
10	3.29	1.8	31.2	7558F556	
12	3.29	1.9	32.5	7558F559	
16	3.29	2.0	37.1	7558F562	
20	3.29	2.2	41.3	7558F565	
24	3.29	2.3	45.0	7558F568	
1.3 mm²/7					
2	3.27	1.2	16.9	7558F571	
4	3.27	1.3	19.7	7558F574	
5	3.27	1.4	22.0	7558F577	
6	3.27	1.4	24.9	7558F580	
8	3.27	1.5	26.9	7558F583	
10	3.27	1.6	30.7	7558F586	
12	3.27	1.7	31.9	7558F589	
16	3.27	1.8	36.4	7558F592	
20	3.27	2.0	40.6	7558F595	
24	3.27	2.1	44.3	7558F598	

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No. of elem.	Ø core approx. mm	RT of outer sheath nom. mm	Overall diameter approx. mm	Part. No. Colour black
1.5 mm²/7				
2	3.59	1.3	18.1	7558F601
4	3.59	1.4	21.2	7558F604
5	3.59	1.5	23.8	7558F607
6	3.59	1.7	27.3	7558F610
8	3.59	1.7	29.3	7558F613
10	3.59	1.9	33.6	7558F616
12	3.59	1.9	34.8	7558F619
16	3.59	2.1	40.0	7558F622
20	3.59	2.3	44.5	7558F625
24	3.59	2.5	48.7	7558F628

RT = Radial Thickness