

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

EN 50288-7
90 °C / 500 V

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

RE-2X(St)H CI

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
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
PLC	Production Lot Code
LM	Length Marking

Electrical data at 20 °C

		mm ²	0.5	0.75	1	1.3	1.5
Conductor	nom.						
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					
single triple:			100	100	100	100	100
up to 4 triples:			78	78	78	90	90
above 4 triples:			65	65	65	75	75
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				
1	2.93	1.0	8.6	7558F316
2	2.93	1.2	14.0	7558F319
4	2.93	1.3	16.4	7558F322
5	2.93	1.3	18.1	7558F325
6	2.93	1.4	20.7	7558F328
8	2.93	1.5	22.3	7558F331
10	2.93	1.6	25.5	7558F334
12	2.93	1.6	26.3	7558F337
16	2.93	1.8	30.3	7558F340
20	2.93	1.9	33.6	7558F343
24	2.93	2.0	36.6	7558F346
0.75 mm²/7				
1	3.11	1.0	9.0	7558F349
2	3.11	1.2	14.7	7558F352
4	3.11	1.3	17.2	7558F355
5	3.11	1.4	19.3	7558F358
6	3.11	1.5	22.0	7558F361
8	3.11	1.5	23.5	7558F364
10	3.11	1.6	26.8	7558F367
12	3.11	1.7	27.9	7558F370
16	3.11	1.8	31.9	7558F373
20	3.11	2.0	35.6	7558F376
24	3.11	2.1	38.8	7558F379
1 mm²/7				
1	3.09	0.9	8.7	7558F382
2	3.09	1.1	14.8	7558F385
4	3.09	1.2	17.2	7558F388
5	3.09	1.2	19.1	7558F391
6	3.09	1.3	21.7	7558F394
8	3.09	1.4	23.5	7558F397
10	3.09	1.5	26.8	7558F400
12	3.09	1.5	27.7	7558F403
16	3.09	1.6	31.6	7558F406
20	3.09	1.7	35.1	7558F409
24	3.09	1.8	38.3	7558F412

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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	
1.3 mm²/7					
1	3.47	1.0	9.8	7558F415	
2	3.47	1.3	16.3	7558F418	
4	3.47	1.4	19.1	7558F421	
5	3.47	1.4	21.1	7558F424	
6	3.47	1.5	24.1	7558F427	
8	3.47	1.6	26.1	7558F430	
10	3.47	1.8	29.9	7558F433	
12	3.47	1.8	30.9	7558F436	
16	3.47	2.0	35.5	7558F439	
20	3.47	2.1	39.4	7558F442	
24	3.47	2.2	42.9	7558F445	
1.5 mm²/7					
1	3.59	1.0	10.0	7558F448	
2	3.59	1.3	16.8	7558F451	
4	3.59	1.4	19.6	7558F454	
5	3.59	1.5	22.0	7558F457	
6	3.59	1.6	25.0	7558F460	
8	3.59	1.6	26.8	7558F463	
10	3.59	1.8	30.8	7558F466	
12	3.59	1.8	31.9	7558F469	
16	3.59	2.0	36.6	7558F472	
20	3.59	2.2	40.8	7558F475	
24	3.59	2.3	44.5	7558F478	

RT = Radial Thickness