

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

EN 50288-7
90 °C / 500 V

Single & Multi-pair, 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, continuously numbered on blue core (1, 2..) for multipair
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

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					
single pair:			100	100	100	100	100
up to 4 pairs:			78	78	78	90	90
above 4 pairs:			65	65	65	75	75
Capacitance unbalance		pF/500 m	500				
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					
1	2.93	1.0	8.2	62	7558F001
2	2.63	1.1	11.4	121	7558F004
4	2.63	1.2	13.8	154	7558F007
5	2.63	1.2	15.1	205	7558F151
6	2.63	1.3	16.6	250	7558F010
8	2.63	1.3	17.7	288	7558F013
10	2.63	1.4	20.2	356	7558F016
12	2.63	1.4	21.2	405	7558F019
16	2.63	1.5	24.1	542	7558F022
20	2.63	1.6	26.7	654	7558F025
24	2.63	1.7	29.1	758	7558F028
0.75 mm²/7					
1	2.81	0.9	7.7	73	7558F031
2	2.81	1.1	12.1	137	7558F034
4	2.81	1.2	14.5	199	7558F037
5	2.81	1.2	15.9	249	7558F154
6	2.81	1.3	17.5	288	7558F040
8	2.81	1.3	18.7	352	7558F043
10	2.81	1.4	21.4	436	7558F046
12	2.81	1.5	22.6	498	7558F049
16	2.81	1.6	25.7	651	7558F052
20	2.81	1.7	28.5	790	7558F055
24	2.81	1.8	31.0	934	7558F058
1 mm²/7					
1	3.09	1.0	8.5	81	7558F061
2	3.09	1.1	13.0	155	7558F064
4	3.09	1.2	15.4	220	7558F067
5	3.09	1.3	17.1	274	7558F157
6	3.09	1.3	18.7	323	7558F070
8	3.09	1.4	20.1	391	7558F073
10	3.09	1.5	23.1	484	7558F076
12	3.09	1.5	24.2	558	7558F079
16	3.09	1.7	27.8	742	7558F082
20	3.09	1.8	30.8	926	7558F085
24	3.09	1.9	33.6	1067	7558F088

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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
1.3 mm²/7					
1	3.27	1.0	8.8	89	7558F091
2	3.27	1.2	13.8	170	7558F094
4	3.27	1.2	16.1	259	7558F097
5	3.27	1.3	17.9	313	7558F160
6	3.27	1.4	19.8	378	7558F100
8	3.27	1.4	21.1	450	7558F103
10	3.27	1.5	24.2	572	7558F106
12	3.27	1.6	25.6	657	7558F109
16	3.27	1.7	29.2	863	7558F112
20	3.27	1.9	32.6	1066	7558F115
24	3.27	2.0	35.5	1262	7558F118
1.5 mm²/7					
1	3.59	1.0	9.5	91	7558F121
2	3.39	1.2	14.2	191	7558F124
4	3.39	1.3	16.8	280	7558F127
5	3.39	1.3	18.5	355	7558F163
6	3.39	1.4	20.4	422	7558F130
8	3.39	1.5	21.9	503	7558F133
10	3.39	1.6	25.2	643	7558F136
12	3.39	1.6	26.4	724	7558F139
16	3.39	1.8	30.3	961	7558F142
20	3.39	1.9	33.7	1203	7558F145
24	3.39	2.0	36.7	1390	7558F148

RT = Radial Thickness