

ICON® Instrumentation Control Cable

Zero Halogen, Flame Retardant

EN 50288-7
90 °C / 500 V

Multi-Core, XLPE-Insulation, Collective Screen, LSZH-Sheath

RE-2X(St)H

Application

For control purposes, e.g. controlling of valves or engines; 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 , 2.5 mm ²
Insulation.....	cross-linked polyethylene XLPE
Colour code.....	black, continuously numbered
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 CONTROL CABLE 500 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 Control Cable
2X	insulation of XLPE
(St)	collective screen
H	LSZH Sheath
PLC	Production Lot Code
LM	Length Marking

Electrical data at 20 °C

	nom.	mm ²	0.5	0.75	1	1.3	1.5	2.5
Conductor	nom.	mm ²	0.5	0.75	1	1.3	1.5	2.5
Conductor resistance	max.	Ω/km	36.0	24.5	18.1	13.9	12.1	7.4
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	60
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)

ICON[®] Instrumentation Control Cable Zero Halogen, Flame Retardant

EN 50288-7
90 °C / 500 V

Multi-Core, XLPE-Insulation, Collective Screen, LSZH-Sheath

RE-2X(St)H

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	0.55	0.9	6.2	47	7076C001
3	0.55	0.9	6.5	50	7076C004
4	0.55	0.9	7.0	60	7076C007
5	0.55	0.9	7.6	71	7076C010
8	0.55	1.0	9.1	95	7076C016
10	0.55	1.0	10.4	127	7076C019
12	0.55	1.0	10.7	151	7076C022
14	0.55	1.0	11.3	162	7076C025
16	0.55	1.0	11.8	180	7076C028
20	0.55	1.1	13.3	222	7076C034
24	0.55	1.1	14.7	274	7076C037
27	0.55	1.1	15.0	282	7076C040
30	0.55	1.2	15.7	318	7076C043
37	0.55	1.2	16.9	372	7076C046
40	0.55	1.2	17.6	398	7076C049
0.75 mm²/7					
2	0.55	0.9	6.5	51	7076C052
3	0.55	0.9	6.9	62	7076C055
4	0.55	0.9	7.4	74	7076C058
5	0.55	0.9	8.1	96	7076C061
8	0.55	1.0	9.7	126	7076C067
10	0.55	1.0	11.1	156	7076C070
12	0.55	1.0	11.5	183	7076C073
14	0.55	1.1	12.2	200	7076C076
16	0.55	1.1	12.9	224	7076C079
20	0.55	1.1	14.3	284	7076C085
24	0.55	1.2	16.0	324	7076C088
27	0.55	1.2	16.3	363	7076C091
30	0.55	1.2	16.9	396	7076C094
37	0.55	1.2	18.2	472	7076C097
40	0.55	1.3	19.1	514	7076C100

ICON® Instrumentation Control Cable Zero Halogen, Flame Retardant

EN 50288-7
90 °C / 500 V

Multi-Core, XLPE-Insulation, Collective Screen, LSZH-Sheath

RE-2X(St)H

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
1 mm²/7					
2	0.55	0.9	6.9	61	7076C103
3	0.55	0.9	7.3	70	7076C106
4	0.55	0.9	7.9	85	7076C109
5	0.55	0.9	8.6	109	7076C112
8	0.55	1.0	10.3	157	7076C118
10	0.55	1.0	11.9	193	7076C121
12	0.55	1.0	12.2	214	7076C124
14	0.55	1.1	13.0	243	7076C127
16	0.55	1.1	13.7	280	7076C130
20	0.55	1.1	15.2	336	7076C136
24	0.55	1.2	17.0	414	7076C139
27	0.55	1.2	17.4	443	7076C142
30	0.55	1.2	18.0	484	7076C145
37	0.55	1.3	19.6	590	7076C148
40	0.55	1.3	20.4	631	7076C151
1.3 mm²/7					
2	0.6	0.9	7.4	69	7076C154
3	0.6	0.9	7.9	83	7076C157
4	0.6	0.9	8.5	105	7076C160
5	0.6	1.0	9.5	135	7076C163
8	0.6	1.0	11.2	186	7076C169
10	0.6	1.1	13.2	228	7076C172
12	0.6	1.1	13.6	269	7076C175
14	0.6	1.1	14.3	305	7076C178
16	0.6	1.1	15.0	351	7076C181
20	0.6	1.2	16.9	423	7076C187
24	0.6	1.2	18.7	507	7076C190
27	0.6	1.3	19.3	558	7076C193
30	0.6	1.3	20.0	611	7076C196
37	0.6	1.3	21.6	743	7076C199
40	0.6	1.4	22.7	796	7076C202

ICON[®] Instrumentation Control Cable Zero Halogen, Flame Retardant

EN 50288-7
90 °C / 500 V

Multi-Core, XLPE-Insulation, Collective Screen, LSZH-Sheath

RE-2X(St)H

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
1.5 mm²/7					
2	0.6	0.9	7.7	78	7076C205
3	0.6	0.9	8.1	98	7076C208
4	0.6	0.9	8.8	120	7076C211
5	0.6	1.0	9.8	153	7076C214
8	0.6	1.0	11.6	218	7076C220
10	0.6	1.1	13.7	268	7076C223
12	0.6	1.1	14.1	315	7076C226
14	0.6	1.1	14.8	341	7076C229
16	0.6	1.1	15.6	392	7076C232
20	0.6	1.2	17.6	484	7076C238
24	0.6	1.3	19.6	579	7076C241
27	0.6	1.3	20.1	626	7076C244
30	0.6	1.3	20.8	685	7076C247
37	0.6	1.4	22.6	834	7076C250
40	0.6	1.4	23.6	898	7076C253
2.5 mm²/7					
2	0.7	0.9	8.9	111	7076C256
3	0.7	1.0	9.7	132	7076C259
4	0.7	1.0	10.5	169	7076C262
5	0.7	1.0	11.9	209	7076C265
8	0.7	1.1	13.9	321	7076C271
10	0.7	1.2	16.3	386	7076C274
12	0.7	1.2	16.9	447	7076C277
14	0.7	1.2	17.7	509	7076C280
16	0.7	1.3	18.9	585	7076C283
20	0.7	1.3	21.1	712	7076C289
24	0.7	1.4	23.6	855	7076C292
27	0.7	1.4	24.1	956	7076C295
30	0.7	1.5	25.2	1049	7076C298
37	0.7	1.5	27.2	1277	7076C301
40	0.7	1.6	28.5	1370	7076C304

RT = Radial Thickness