

## ICON® Instrumentation Control Cable

### Flame Retardant, Sunlight Resistant

**EN 50288-7**  
**90 °C / 500 V**

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

#### RE-2X(St)Y-fl

#### 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.

#### Construction

Conductor.....	plain annealed copper, 7 stranded, size, 0.5 mm <sup>2</sup> , 0.75 mm <sup>2</sup> , 1 mm <sup>2</sup> , 1.3 mm <sup>2</sup> , 1.5 mm <sup>2</sup> , 2.5 mm <sup>2</sup>
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 <sup>2</sup>
Outer sheath.....	polyvinylchloride PVC, black; blue for intrinsically safe systems
Cable marking.....	LEONI KERPEN ICON INSTRUMENTATION CONTROL CABLE 500 V RP 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)
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
Y	outer sheath of PVC
-fl	with reduced flame propagation
PLC	Production Lot Code
LM	Length Marking

#### Electrical data at 20 °C

		mm <sup>2</sup>	0.5	0.75	1	1.3	1.5	2.5
Conductor	nom.							
Conductor resistance	max.	Ω/km	36.0	24.5	18.1	13.9	12.1	0.0
Insulation resistance	min.	MΩ x km	5000	5000	5000	5000	5000	2000
Mutual capacitance	max.	nF/km	115	115	115	115	115	2000
Capacitance unbalance		pF/500 m	0	0	0	0	0	500
Inductance	max.	mH/km	1	1	1	1	1	0
L/R (ratio)	max.	µH/Ω	25	25	25	40	40	1
Test voltage U <sub>rms</sub> (core : core)		V	2000	2000	2000	2000	2000	0
Test voltage U <sub>rms</sub> (core : screen)		V	2000	2000	2000	2000	2000	0
Operating voltage		V	500					

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<b>Geometrical data</b>					
<b>No. of elem.</b>	<b>RT of insulation</b> nom. mm	<b>RT of outer sheath</b> nom. mm	<b>Overall diameter</b> approx. mm	<b>Cable weight</b> approx. kg/km	<b>Part. No.</b> Colour black
<b>0.5 mm<sup>2</sup>/7</b>					
2	0.55	0.9	6.2	47	7128C001
3	0.55	0.9	6.5	51	7128C004
4	0.55	0.9	7.0	60	7128C007
5	0.55	0.9	7.6	71	7128C010
7	0.55	1.0	8.4	96	7128C013
8	0.55	1.0	9.1	96	7128C016
10	0.55	1.0	10.4	123	7128C019
12	0.55	1.0	10.7	145	7128C022
14	0.55	1.0	11.3	163	7128C025
16	0.55	1.0	11.8	188	7128C028
20	0.55	1.1	13.3	215	7128C034
24	0.55	1.1	14.7	259	7128C037
27	0.55	1.1	15.0	283	7128C040
30	0.55	1.2	15.7	309	7128C043
37	0.55	1.2	16.9	387	7128C046
40	0.55	1.2	17.6	400	7128C049
<b>0.75 mm<sup>2</sup>/7</b>					
2	0.55	0.9	6.5	51	7128C052
3	0.55	0.9	6.9	60	7128C055
4	0.55	0.9	7.4	72	7128C058
5	0.55	0.9	8.1	96	7128C061
8	0.55	1.0	9.7	127	7128C067
10	0.55	1.0	11.1	157	7128C070
12	0.55	1.0	11.5	178	7128C073
14	0.55	1.1	12.2	201	7128C076
16	0.55	1.1	12.9	225	7128C079
20	0.55	1.1	14.3	277	7128C085
24	0.55	1.2	16.0	326	7128C088
27	0.55	1.2	16.3	364	7128C091
30	0.55	1.2	16.9	397	7128C094
37	0.55	1.2	18.2	473	7128C097
40	0.55	1.3	19.1	516	7128C100

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<b>1 mm<sup>2</sup>/7</b>					
2	0.55	0.9	6.9	61	7128C103
3	0.55	0.9	7.3	82	7128C106
4	0.55	0.9	7.9	85	7128C109
5	0.55	0.9	8.6	110	7128C112
7	0.55	1.0	9.5	137	7128C115
8	0.55	1.0	10.3	153	7128C118
10	0.55	1.0	11.9	189	7128C121
12	0.55	1.0	12.2	223	7128C124
14	0.55	1.1	13.0	243	7128C127
16	0.55	1.1	13.7	281	7128C130
19	0.55	1.1	14.5	329	7128C133
20	0.55	1.1	15.2	337	7128C136
24	0.55	1.2	17.0	415	7128C139
27	0.55	1.2	17.4	445	7128C142
30	0.55	1.2	18.0	486	7128C145
37	0.55	1.3	19.6	591	7128C148
40	0.55	1.3	20.4	633	7128C151
<b>1.3 mm<sup>2</sup>/7</b>					
2	0.6	0.9	7.4	69	7128C154
3	0.6	0.9	7.9	83	7128C157
4	0.6	0.9	8.5	106	7128C160
5	0.6	1.0	9.5	135	7128C163
8	0.6	1.0	11.2	186	7128C169
10	0.6	1.1	13.2	229	7128C172
12	0.6	1.1	13.6	270	7128C175
14	0.6	1.1	14.3	306	7128C178
16	0.6	1.1	15.0	352	7128C181
20	0.6	1.2	16.9	425	7128C187
24	0.6	1.2	18.7	509	7128C190
27	0.6	1.3	19.3	560	7128C193
30	0.6	1.3	20.0	612	7128C196
37	0.6	1.3	21.6	745	7128C199
40	0.6	1.4	22.7	798	7128C202

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<b>1.5 mm<sup>2</sup>/7</b>					
2	0.6	0.9	7.7	78	7128C205
3	0.6	0.9	8.1	99	7128C208
4	0.6	0.9	8.8	121	7128C211
5	0.6	1.0	9.8	154	7128C214
8	0.6	1.0	11.6	213	7128C220
10	0.6	1.1	13.7	270	7128C223
12	0.6	1.1	14.1	309	7128C226
14	0.6	1.1	14.8	350	7128C229
16	0.6	1.1	15.6	403	7128C232
20	0.6	1.2	17.6	486	7128C238
24	0.6	1.3	19.6	569	7128C241
27	0.6	1.3	20.1	627	7128C244
30	0.6	1.3	20.8	701	7128C247
37	0.6	1.4	22.6	852	7128C250
40	0.6	1.4	23.6	901	7128C253
<b>2.5 mm<sup>2</sup>/7</b>					
2	0.7	0.9	8.9	112	7128C256
3	0.7	1.0	9.7	133	7128C259
4	0.7	1.0	10.5	165	7128C262
5	0.7	1.0	11.9	210	7128C265
8	0.7	1.1	13.9	322	7128C271
10	0.7	1.2	16.3	387	7128C274
12	0.7	1.2	16.9	448	7128C277
14	0.7	1.2	17.7	511	7128C280
16	0.7	1.3	18.9	587	7128C283
20	0.7	1.3	21.1	714	7128C289
24	0.7	1.4	23.6	875	7128C292
27	0.7	1.4	24.1	958	7128C295
30	0.7	1.5	25.2	1051	7128C298
37	0.7	1.5	27.2	1280	7128C301
40	0.7	1.6	28.5	1373	7128C304

RT = Radial Thickness