

## ICON<sup>®</sup> Instrumentation Control Cable

### Flame Retardant, Sunlight Resistant

**EN 50288-7**  
**70 °C / 500 V**

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

#### RE-Y(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.....	polyvinylchloride PVC
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 70 °C  
(during operation)  
-5 °C up to 50 °C  
(during installation)  
**Min. bending radius:**  
7.5 x cable-Ø

#### Abbreviations

RE-	Instrumentation Control Cable
Y	insulation of PVC
(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

Conductor	nom.	mm <sup>2</sup>	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	0.0
Insulation resistance	min.	MΩ x km	100	100	100	100	100	2000
Mutual capacitance	max.	nF/km	170	170	170	170	170	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					

#### 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
<b>0.5 mm<sup>2</sup>/7</b>					
2	0.55	0.9	6.2	47	7774C001
16	0.55	1.0	11.8	200	7774C028

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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
<b>0.75 mm<sup>2</sup>/7</b>					
5	0.55	0.9	8.1	102	7774C061
8	0.55	1.0	9.7	139	7774C067
10	0.55	1.0	11.1	176	7774C070
12	0.55	1.0	11.5	201	7774C073
14	0.55	1.1	12.2	226	7774C076
16	0.55	1.1	12.9	248	7774C079
20	0.55	1.1	14.3	306	7774C085
24	0.55	1.2	16.0	368	7774C088
<b>1 mm<sup>2</sup>/7</b>					
5	0.55	0.9	8.6	118	7774C112
10	0.55	1.0	11.9	205	7774C121
20	0.55	1.1	15.2	378	7774C136
24	0.55	1.2	17.0	453	7774C139
27	0.55	1.2	17.4	487	7774C142
37	0.55	1.3	19.6	650	7774C148
40	0.55	1.3	20.4	716	7774C151
<b>1.3 mm<sup>2</sup>/7</b>					
2	0.6	0.9	7.4	73	7774C154
3	0.6	0.9	7.9	88	7774C157
4	0.6	0.9	8.5	112	7774C160
5	0.6	1.0	9.5	142	7774C163
8	0.6	1.0	11.2	200	7774C169
10	0.6	1.1	13.2	246	7774C172
12	0.6	1.1	13.6	290	7774C175
14	0.6	1.1	14.3	330	7774C178
16	0.6	1.1	15.0	379	7774C181
24	0.6	1.2	18.7	549	7774C190
30	0.6	1.3	20.0	662	7774C196
40	0.6	1.4	22.7	865	7774C202
<b>1.5 mm<sup>2</sup>/7</b>					
2	0.6	0.9	7.7	81	7774C205
3	0.6	0.9	8.1	100	7774C208
4	0.6	0.9	8.8	123	7774C211
5	0.6	1.0	9.8	154	7774C214
8	0.6	1.0	11.6	224	7774C220
10	0.6	1.1	13.7	280	7774C223
14	0.6	1.1	14.8	375	7774C229

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**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
<b>2.5 mm<sup>2</sup>/7</b>					
2	0.7	0.9	8.9	112	7774C256
3	0.7	1.0	9.7	141	7774C259
4	0.7	1.0	10.5	180	7774C262
5	0.7	1.0	11.9	222	7774C265
8	0.7	1.1	13.9	338	7774C271
10	0.7	1.2	16.3	422	7774C274
12	0.7	1.2	16.9	480	7774C277
14	0.7	1.2	17.7	546	7774C280
16	0.7	1.3	18.9	627	7774C283
20	0.7	1.3	21.1	778	7774C289
24	0.7	1.4	23.6	923	7774C292
27	0.7	1.4	24.1	1026	7774C295
30	0.7	1.5	25.2	1126	7774C298
37	0.7	1.5	27.2	1395	7774C301
40	0.7	1.6	28.5	1473	7774C304

RT = Radial Thickness