

## ICON® Instrumentation Control Cable

### Flame Retardant, Sunlight Resistant

**EN 50288-7**  
**70 °C / 500 V**

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

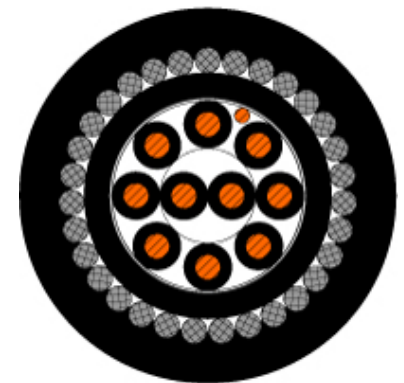
#### RE-Y(St)YSWAY-fl

#### 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; for direct burial.

#### Construction

Conductor.....	plain annealed copper, 7 stranded, size, 0.5 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>
Inner sheath.....	polyvinylchloride PVC, black
Armour.....	galvanised round steel wires
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:**  
10 x cable-Ø

#### Abbreviations

RE-	Instrumentation Control Cable
Y	insulation of PVC
(St)	collective screen
Y	inner sheath of PVC
SWA	steel wire armour
Y	outer sheath of PVC
-fl	with reduced flame propagation
PLC	Production Lot Code
LM	Length Marking

#### Electrical data at 20 °C

	nom.	mm <sup>2</sup>	0.5	1	1.3	1.5	2.5
Conductor	nom.	mm <sup>2</sup>	0.5	1	1.3	1.5	2.5
Conductor resistance	max.	Ω/km	36.0	18.1	13.9	12.1	0.0
Insulation resistance	min.	MΩ x km	100	100	100	100	2000
Mutual capacitance	max.	nF/km	170	170	170	170	2000
Capacitance unbalance		pF/500 m	0	0	0	0	500
Inductance	max.	mH/km	1	1	1	1	0
L/R (ratio)	max.	µH/Ω	25	25	40	40	1
Test voltage U <sub>rms</sub> (core : core)		V	2000	2000	2000	2000	0
Test voltage U <sub>rms</sub> (core : screen)		V	2000	2000	2000	2000	0
Operating voltage		V			500		

#### Geometrical data

No. of elem.	RT of insulation	RT of inner sheath	Ø over inner sheath	Ø of armour wire	RT of outer sheath	Overall diameter	Cable weight	Part. No.
	nom. mm	nom. mm	approx. mm	nom. mm	nom. mm	approx. mm	approx. kg/km	Colour black

#### 0.5 mm<sup>2</sup>/7

2	0.55	0.9	6.2	0.90	1.3	10.6	213	7776C001
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No. of elem.	RT of insulation nom. mm	RT of inner sheath nom. mm	Ø over inner sheath approx. mm	Ø of armour wire nom. mm	RT of outer sheath nom. mm	Overall diameter approx. mm	Cable weight approx. kg/km	Part. No.  Colour black
<b>1 mm<sup>2</sup>/7</b>								
5	0.55	0.9	8.6	0.90	1.4	13.2	336	7776C112
8	0.55	1.0	10.3	0.90	1.4	14.9	439	7776C118
10	0.55	1.0	11.9	0.90	1.4	16.5	517	7776C121
12	0.55	1.0	12.2	0.90	1.5	17.0	542	7776C124
14	0.55	1.1	13.0	0.90	1.5	17.8	614	7776C127
16	0.55	1.1	13.7	0.90	1.5	18.5	676	7776C130
20	0.55	1.1	15.2	0.90	1.5	20.0	744	7776C136
24	0.55	1.2	17.0	0.90	1.6	22.0	1045	7776C139
27	0.55	1.2	17.4	1.25	1.6	23.1	1076	7776C142
<b>1.3 mm<sup>2</sup>/7</b>								
10	0.6	1.1	13.2	0.90	1.5	18.0	596	7776C172
12	0.6	1.1	13.6	0.90	1.5	18.4	655	7776C175
14	0.6	1.1	14.3	0.90	1.5	19.1	723	7776C178
16	0.6	1.1	15.0	0.90	1.5	19.8	904	7776C181
20	0.6	1.2	16.9	0.90	1.6	21.9	1050	7776C187
24	0.6	1.2	18.7	1.25	1.6	24.4	1205	7776C190
27	0.6	1.3	19.3	1.25	1.6	25.0	1274	7776C193
30	0.6	1.3	20.0	1.25	1.6	25.7	1357	7776C196
37	0.6	1.3	21.6	1.25	1.7	27.5	1568	7776C199
<b>1.5 mm<sup>2</sup>/7</b>								
2	0.6	0.9	7.7	0.90	1.3	12.1	278	7776C205
3	0.6	0.9	8.1	0.90	1.4	12.7	309	7776C208
4	0.6	0.9	8.8	0.90	1.4	13.4	346	7776C211
5	0.6	1.0	9.8	0.90	1.4	14.4	401	7776C214
8	0.6	1.0	11.6	0.90	1.4	16.2	511	7776C220
10	0.6	1.1	13.7	0.90	1.5	18.5	621	7776C223
12	0.6	1.1	14.1	0.90	1.5	18.9	670	7776C226
14	0.6	1.1	14.8	0.90	1.5	19.6	751	7776C229
16	0.6	1.1	15.6	0.90	1.5	20.4	797	7776C232
20	0.6	1.2	17.6	1.25	1.6	23.3	1080	7776C238
24	0.6	1.3	19.6	1.25	1.6	25.3	1231	7776C241
27	0.6	1.3	20.1	1.25	1.6	25.8	1317	7776C244
30	0.6	1.3	20.8	1.25	1.7	26.7	1440	7776C247
37	0.6	1.4	22.6	1.25	1.7	28.5	1629	7776C250
40	0.6	1.4	23.6	1.25	1.7	29.5	1725	7776C253

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Geometrical data								
No. of elem.	RT of insulation nom. mm	RT of inner sheath nom. mm	Ø over inner sheath approx. mm	Ø of armour wire 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	0.90	1.4	13.5	370	7776C256
3	0.7	1.0	9.7	0.90	1.4	14.3	417	7776C259
4	0.7	1.0	10.5	0.90	1.4	15.1	443	7776C262
5	0.7	1.0	11.9	0.90	1.4	16.5	545	7776C265
8	0.7	1.1	13.9	0.90	1.5	18.7	705	7776C271
10	0.7	1.2	16.3	0.90	1.6	21.3	953	7776C274
12	0.7	1.2	16.9	0.90	1.6	21.9	1044	7776C277
14	0.7	1.2	17.7	1.25	1.6	23.4	1116	7776C280
16	0.7	1.3	18.9	1.25	1.6	24.6	1263	7776C283
20	0.7	1.3	21.1	1.25	1.7	27.0	1509	7776C289
24	0.7	1.4	23.6	1.25	1.7	29.5	1707	7776C292
27	0.7	1.4	24.1	1.25	1.8	30.2	1798	7776C295
30	0.7	1.5	25.2	1.25	1.8	31.3	2233	7776C298
37	0.7	1.5	27.2	1.25	1.8	33.3	2487	7776C301
40	0.7	1.6	28.5	1.25	1.9	34.8	2719	7776C304

RT = Radial Thickness