

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

### Flame Retardant, Sunlight Resistant

**EN 50288-7**  
**70 °C / 300 V**

Single & Multi-pair, PE-Insulation, Collective Screen, Armour, PVC Sheath

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

#### 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; 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>
Insulation.....	polyethylene PE
Colour code.....	black / white, continuously numbered on white 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 <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 CABLE 300 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 Cable
2Y	insulation of PE
(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	0.75	1	1.3	1.5
Conductor	nom.	mm <sup>2</sup>	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:			115	115	115	115	115
up to 4 pairs:			90	90	90	102	102
above 4 pairs:			75	75	75	85	85
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 <sub>rms</sub> (core : core)		V	1500				
Test voltage U <sub>rms</sub> (core : screen)		V	1500				
Operating voltage		V	300				

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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>0.5 mm<sup>2</sup>/7</b>								
1	0.35	0.8	5.2	0.90	1.3	9.6	178	7093E001
2	0.35	0.9	7.6	0.90	1.3	12.0	257	7093E004
4	0.35	0.9	8.8	0.90	1.4	13.4	317	7093E007
5	0.35	1.0	9.8	0.90	1.4	14.4	365	7093E151
6	0.35	1.0	10.6	0.90	1.4	15.2	405	7093E010
8	0.35	1.0	11.3	0.90	1.4	15.9	442	7093E013
10	0.35	1.1	12.9	0.90	1.5	17.7	524	7093E016
12	0.35	1.1	13.5	0.90	1.5	18.3	565	7093E019
16	0.35	1.1	15.2	0.90	1.5	20.0	684	7093E022
20	0.35	1.2	16.9	0.90	1.6	21.9	903	7093E025
24	0.35	1.2	18.3	1.25	1.6	24.0	1003	7093E028
<b>0.75 mm<sup>2</sup>/7</b>								
1	0.38	0.8	5.6	0.90	1.3	10.0	196	7093E031
2	0.38	0.9	8.5	0.90	1.4	13.1	299	7093E034
4	0.38	1.0	10.0	0.90	1.4	14.6	372	7093E037
5	0.38	1.0	10.9	0.90	1.4	15.5	423	7093E154
6	0.38	1.0	11.8	0.90	1.4	16.4	469	7093E040
8	0.38	1.1	12.8	0.90	1.5	17.6	535	7093E043
10	0.38	1.1	14.5	0.90	1.5	19.3	639	7093E046
12	0.38	1.1	15.1	0.90	1.5	19.9	673	7093E049
16	0.38	1.2	17.3	0.90	1.6	22.3	826	7093E052
20	0.38	1.3	19.2	1.25	1.6	24.9	1090	7093E055
24	0.38	1.3	20.8	1.25	1.7	26.7	1230	7093E058
<b>1 mm<sup>2</sup>/7</b>								
1	0.4	0.9	6.3	0.90	1.3	10.7	220	7093E061
2	0.4	0.9	9.2	0.90	1.4	13.8	332	7093E064
4	0.4	1.0	10.9	0.90	1.4	15.5	424	7093E067
5	0.4	1.0	11.9	0.90	1.4	16.5	477	7093E157
6	0.4	1.0	13.0	0.90	1.4	17.6	537	7093E070
8	0.4	1.1	14.0	0.90	1.5	18.8	614	7093E073
10	0.4	1.1	15.9	0.90	1.5	20.7	714	7093E076
12	0.4	1.2	16.8	0.90	1.5	21.6	796	7093E079
16	0.4	1.2	19.0	1.25	1.6	24.7	1101	7093E082
20	0.4	1.3	21.1	1.25	1.7	27.0	1289	7093E085
24	0.4	1.4	23.1	1.25	1.7	29.0	1467	7093E088

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<b>1.3 mm<sup>2</sup>/7</b>								
1	0.45	0.9	6.8	0.90	1.3	11.2	242	7093E091
2	0.45	1.0	10.4	0.90	1.4	15.0	384	7093E094
4	0.45	1.0	12.0	0.90	1.4	16.6	479	7093E097
5	0.45	1.1	13.4	0.90	1.5	18.2	568	7093E160
6	0.45	1.1	14.6	0.90	1.5	19.4	637	7093E100
8	0.45	1.2	15.7	0.90	1.5	20.5	721	7093E103
10	0.45	1.2	17.9	1.25	1.6	23.6	986	7093E106
12	0.45	1.3	18.9	1.25	1.6	24.6	1093	7093E109
16	0.45	1.3	21.4	1.25	1.7	27.3	1321	7093E112
20	0.45	1.4	23.8	1.25	1.8	29.9	1557	7093E115
24	0.45	1.5	25.9	1.25	1.8	32.0	1779	7093E118
<b>1.5 mm<sup>2</sup>/7</b>								
1	0.45	0.9	7.1	0.90	1.3	11.5	254	7093E121
2	0.45	1.0	10.8	0.90	1.4	15.4	402	7093E124
4	0.45	1.1	12.7	0.90	1.5	17.5	531	7093E127
5	0.45	1.1	14.0	0.90	1.5	18.8	607	7093E163
6	0.45	1.1	15.2	0.90	1.5	20.0	681	7093E130
8	0.45	1.2	16.4	0.90	1.6	21.4	793	7093E133
10	0.45	1.3	18.8	1.25	1.6	24.5	1070	7093E136
12	0.45	1.4	19.9	1.25	1.7	25.8	1203	7093E139
16	0.45	1.4	22.5	1.25	1.7	28.4	1441	7093E142
20	0.45	1.5	25.0	1.25	1.8	31.1	1715	7093E145
24	0.45	1.5	27.1	1.25	1.8	33.2	1948	7093E148

RT = Radial Thickness