

ICON® Instrumentation Control Cable

Flame Retardant, Sunlight Resistant

EN 50288-7
70 °C / 500 V

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

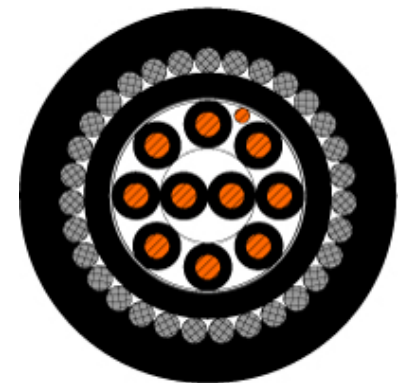
RE-2Y(St)YSWAY-fl

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 ² , 0.75 mm ² , 1 mm ² , 1.3 mm ² , 1.5 mm ² , 2.5 mm ²
Insulation.....	polyethylene PE
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
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
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 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					

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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
0.5 mm²/7								
2	0.55	0.9	6.2	0.90	1.3	10.6	211	7093C001
3	0.55	0.9	6.5	0.90	1.3	10.9	223	7093C004
4	0.55	0.9	7.0	0.90	1.3	11.4	254	7093C007
5	0.55	0.9	7.6	0.90	1.3	12.0	284	7093C010
8	0.55	1.0	9.1	0.90	1.4	13.7	0	7093C016
10	0.55	1.0	10.4	0.90	1.4	15.0	400	7093C019
12	0.55	1.0	10.7	0.90	1.4	15.3	443	7093C022
14	0.55	1.0	11.3	0.90	1.4	15.9	476	7093C025
16	0.55	1.0	11.8	0.90	1.4	16.4	506	7093C028
20	0.55	1.1	13.3	0.90	1.5	18.1	571	7093C034
24	0.55	1.1	14.7	0.90	1.5	19.5	646	7093C037
27	0.55	1.1	15.0	0.90	1.5	19.8	810	7093C040
30	0.55	1.2	15.7	0.90	1.5	20.5	850	7093C043
37	0.55	1.2	16.9	0.90	1.6	21.9	965	7093C046
40	0.55	1.2	17.6	1.25	1.6	23.3	1016	7093C049
0.75 mm²/7								
2	0.55	0.9	6.5	0.90	1.3	10.9	345	7093C052
3	0.55	0.9	6.9	0.90	1.3	11.3	240	7093C055
4	0.55	0.9	7.4	0.90	1.3	11.8	507	7093C058
5	0.55	0.9	8.1	0.90	1.4	12.7	314	7093C061
8	0.55	1.0	9.7	0.90	1.4	14.3	0	7093C067
10	0.55	1.0	11.1	0.90	1.4	15.7	1037	7093C070
12	0.55	1.0	11.5	0.90	1.4	16.1	1184	7093C073
14	0.55	1.1	12.2	0.90	1.5	17.0	1335	7093C076
16	0.55	1.1	12.9	0.90	1.5	17.7	1497	7093C079
20	0.55	1.1	14.3	0.90	1.5	19.1	1825	7093C085
24	0.55	1.2	16.0	0.90	1.5	20.8	2260	7093C088
27	0.55	1.2	16.3	0.90	1.6	21.3	2484	7093C091
30	0.55	1.2	16.9	0.90	1.6	21.9	2715	7093C094
37	0.55	1.2	18.2	1.25	1.6	23.9	3234	7093C097
40	0.55	1.3	19.1	1.25	1.6	24.8	3486	7093C100

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1 mm²/7								
2	0.55	0.9	6.9	0.90	1.3	11.3	240	7093C103
3	0.55	0.9	7.3	0.90	1.3	11.7	271	7093C106
4	0.55	0.9	7.9	0.90	1.4	12.5	291	7093C109
5	0.55	0.9	8.6	0.90	1.4	13.2	343	7093C112
8	0.55	1.0	10.3	0.90	1.4	14.9	0	7093C118
10	0.55	1.0	11.9	0.90	1.4	16.5	516	7093C121
12	0.55	1.0	12.2	0.90	1.5	17.0	549	7093C124
14	0.55	1.1	13.0	0.90	1.5	17.8	592	7093C127
16	0.55	1.1	13.7	0.90	1.5	18.5	634	7093C130
20	0.55	1.1	15.2	0.90	1.5	20.0	866	7093C136
24	0.55	1.2	17.0	0.90	1.6	22.0	980	7093C139
27	0.55	1.2	17.4	1.25	1.6	23.1	1060	7093C142
30	0.55	1.2	18.0	1.25	1.6	23.7	1116	7093C145
37	0.55	1.3	19.6	1.25	1.6	25.3	1273	7093C148
40	0.55	1.3	20.4	1.25	1.7	26.3	1354	7093C151
1.3 mm²/7								
2	0.6	0.9	7.4	0.90	1.3	11.8	267	7093C154
3	0.6	0.9	7.9	0.90	1.3	12.3	0	7093C157
4	0.6	0.9	8.5	0.90	1.4	13.1	341	7093C160
5	0.6	1.0	9.5	0.90	1.4	14.1	384	7093C163
8	0.6	1.0	11.2	0.90	1.4	15.8	0	7093C169
10	0.6	1.1	13.2	0.90	1.5	18.0	579	7093C172
12	0.6	1.1	13.6	0.90	1.5	18.4	635	7093C175
14	0.6	1.1	14.3	0.90	1.5	19.1	700	7093C178
16	0.6	1.1	15.0	0.90	1.5	19.8	872	7093C181
20	0.6	1.2	16.9	0.90	1.6	21.9	1016	7093C187
24	0.6	1.2	18.7	1.25	1.6	24.4	1166	7093C190
27	0.6	1.3	19.3	1.25	1.6	25.0	1229	7093C193
30	0.6	1.3	20.0	1.25	1.6	25.7	1307	7093C196
37	0.6	1.3	21.6	1.25	1.7	27.5	1507	7093C199
40	0.6	1.4	22.7	1.25	1.7	28.6	1588	7093C202

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1.5 mm²/7								
2	0.6	0.9	7.7	0.90	1.3	12.1	280	7093C205
3	0.6	0.9	8.1	0.90	1.4	12.7	326	7093C208
4	0.6	0.9	8.8	0.90	1.4	13.4	349	7093C211
5	0.6	1.0	9.8	0.90	1.4	14.4	392	7093C214
8	0.6	1.0	11.6	0.90	1.4	16.2	0	7093C220
10	0.6	1.1	13.7	0.90	1.5	18.5	616	7093C223
12	0.6	1.1	14.1	0.90	1.5	18.9	671	7093C226
14	0.6	1.1	14.8	0.90	1.5	19.6	727	7093C229
16	0.6	1.1	15.6	0.90	1.5	20.4	903	7093C232
20	0.6	1.2	17.6	1.25	1.6	23.3	1066	7093C238
24	0.6	1.3	19.6	1.25	1.6	25.3	1222	7093C241
27	0.6	1.3	20.1	1.25	1.6	25.8	1323	7093C244
30	0.6	1.3	20.8	1.25	1.7	26.7	1390	7093C247
37	0.6	1.4	22.6	1.25	1.7	28.5	1624	7093C250
40	0.6	1.4	23.6	1.25	1.7	29.5	1692	7093C253
2.5 mm²/7								
2	0.7	0.9	8.9	0.90	1.4	13.5	372	7093C256
3	0.7	1.0	9.7	0.90	1.4	14.3	0	7093C259
4	0.7	1.0	10.5	0.90	1.4	15.1	443	7093C262
5	0.7	1.0	11.9	0.90	1.4	16.5	0	7093C265
8	0.7	1.1	13.9	0.90	1.5	18.7	0	7093C271
10	0.7	1.2	16.3	0.90	1.6	21.3	959	7093C274
12	0.7	1.2	16.9	0.90	1.6	21.9	0	7093C277
14	0.7	1.2	17.7	1.25	1.6	23.4	0	7093C280
16	0.7	1.3	18.9	1.25	1.6	24.6	1274	7093C283
20	0.7	1.3	21.1	1.25	1.7	27.0	1489	7093C289
24	0.7	1.4	23.6	1.25	1.7	29.5	1723	7093C292
27	0.7	1.4	24.1	1.25	1.8	30.2	1899	7093C295
30	0.7	1.5	25.2	1.25	1.8	31.3	2250	7093C298
37	0.7	1.5	27.2	1.25	1.8	33.3	2596	7093C301
40	0.7	1.6	28.5	1.25	1.9	34.8	2654	7093C304

RT = Radial Thickness