

ICON® Instrumentation Control Cable

Flame Retardant, Sunlight Resistant

EN 50288-7
70 °C / 500 V

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

RE-2Y(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 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 / yellow, 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
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
2Y	insulation of PE
(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 ²	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 _{rms} (core : core)		V	2000	2000	2000	2000	2000	0
Test voltage U _{rms} (core : screen)		V	2000	2000	2000	2000	2000	0
Operating voltage		V	500					

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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
0.5 mm²/7					
2	0.55	0.9	6.2	45	7279C001
3	0.55	0.9	6.5	54	7279C004
4	0.55	0.9	7.0	60	7279C007
5	0.55	0.9	7.6	75	7279C010
8	0.55	1.0	9.1	0	7279C016
10	0.55	1.0	10.4	123	7279C019
12	0.55	1.0	10.7	145	7279C022
14	0.55	1.0	11.3	163	7279C025
16	0.55	1.0	11.8	181	7279C028
20	0.55	1.1	13.3	215	7279C034
24	0.55	1.1	14.7	259	7279C037
27	0.55	1.1	15.0	283	7279C040
30	0.55	1.2	15.7	309	7279C043
37	0.55	1.2	16.9	373	7279C046
40	0.55	1.2	17.6	399	7279C049
0.75 mm²/7					
2	0.55	0.9	6.5	54	7279C052
3	0.55	0.9	6.9	233	7279C055
4	0.55	0.9	7.4	301	7279C058
5	0.55	0.9	8.1	382	7279C061
8	0.55	1.0	9.7	0	7279C067
10	0.55	1.0	11.1	731	7279C070
12	0.55	1.0	11.5	184	7279C073
14	0.55	1.1	12.2	1008	7279C076
16	0.55	1.1	12.9	1149	7279C079
20	0.55	1.1	14.3	1432	7279C085
24	0.55	1.2	16.0	1707	7279C088
27	0.55	1.2	16.3	1918	7279C091
30	0.55	1.2	16.9	2123	7279C094
37	0.55	1.2	18.2	2602	7279C097
40	0.55	1.3	19.1	2817	7279C100

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1 mm²/7					
2	0.55	0.9	6.9	58	7279C103
3	0.55	0.9	7.3	70	7279C106
4	0.55	0.9	7.9	88	7279C109
5	0.55	0.9	8.6	0	7279C112
8	0.55	1.0	10.3	0	7279C118
10	0.55	1.0	11.9	189	7279C121
12	0.55	1.0	12.2	215	7279C124
14	0.55	1.1	13.0	243	7279C127
16	0.55	1.1	13.7	281	7279C130
20	0.55	1.1	15.2	338	7279C136
24	0.55	1.2	17.0	415	7279C139
27	0.55	1.2	17.4	445	7279C142
30	0.55	1.2	18.0	486	7279C145
37	0.55	1.3	19.6	591	7279C148
40	0.55	1.3	20.4	633	7279C151
1.3 mm²/7					
2	0.6	0.9	7.4	72	7279C154
3	0.6	0.9	7.9	83	7279C157
4	0.6	0.9	8.5	110	7279C160
5	0.6	1.0	9.5	135	7279C163
8	0.6	1.0	11.2	0	7279C169
10	0.6	1.1	13.2	237	7279C172
12	0.6	1.1	13.6	270	7279C175
14	0.6	1.1	14.3	306	7279C178
16	0.6	1.1	15.0	352	7279C181
20	0.6	1.2	16.9	435	7279C187
24	0.6	1.2	18.7	521	7279C190
27	0.6	1.3	19.3	560	7279C193
30	0.6	1.3	20.0	626	7279C196
37	0.6	1.3	21.6	745	7279C199
40	0.6	1.4	22.7	798	7279C202

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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
1.5 mm²/7					
2	0.6	0.9	7.7	78	7279C205
3	0.6	0.9	8.1	94	7279C208
4	0.6	0.9	8.8	116	7279C211
5	0.6	1.0	9.8	149	7279C214
8	0.6	1.0	11.6	219	7279C220
10	0.6	1.1	13.7	262	7279C223
12	0.6	1.1	14.1	301	7279C226
14	0.6	1.1	14.8	342	7279C229
16	0.6	1.1	15.6	393	7279C232
20	0.6	1.2	17.6	475	7279C238
24	0.6	1.3	19.6	594	7279C241
27	0.6	1.3	20.1	627	7279C244
30	0.6	1.3	20.8	687	7279C247
37	0.6	1.4	22.6	836	7279C250
40	0.6	1.4	23.6	900	7279C253
2.5 mm²/7					
2	0.7	0.9	8.9	118	7279C256
3	0.7	1.0	9.7	147	7279C259
4	0.7	1.0	10.5	182	7279C262
5	0.7	1.0	11.9	0	7279C265
8	0.7	1.1	13.9	0	7279C271
10	0.7	1.2	16.3	428	7279C274
12	0.7	1.2	16.9	496	7279C277
14	0.7	1.2	17.7	0	7279C280
16	0.7	1.3	18.9	0	7279C283
20	0.7	1.3	21.1	0	7279C289
24	0.7	1.4	23.6	932	7279C292
27	0.7	1.4	24.1	1042	7279C295
30	0.7	1.5	25.2	1151	7279C298
37	0.7	1.5	27.2	1395	7279C301
40	0.7	1.6	28.5	1520	7279C304

RT = Radial Thickness