

ICON® Instrumentation Control Cable

Flame Retardant, Sunlight Resistant

EN 50288-7
90 °C / 500 V

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

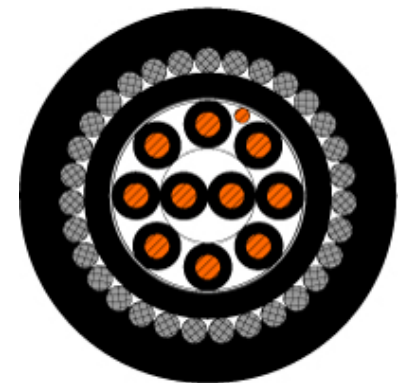
RE-2X(St)YSWAY-fl

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.....	cross-linked polyethylene XLPE
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 90 °C
(during operation)
-5 °C up to 50 °C
(during installation)
Min. bending radius:
10 x cable-Ø

Abbreviations

RE-	Instrumentation Control Cable
2X	insulation of XLPE
(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

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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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	7068C001
3	0.55	0.9	6.5	0.90	1.3	10.9	231	7068C004
4	0.55	0.9	7.0	0.90	1.3	11.4	254	7068C007
5	0.55	0.9	7.6	0.90	1.3	12.0	276	7068C010
8	0.55	1.0	9.1	0.90	1.4	13.7	344	7068C016
10	0.55	1.0	10.4	0.90	1.4	15.0	400	7068C019
12	0.55	1.0	10.7	0.90	1.4	15.3	443	7068C022
14	0.55	1.0	11.3	0.90	1.4	15.9	463	7068C025
16	0.55	1.0	11.8	0.90	1.4	16.4	506	7068C028
20	0.55	1.1	13.3	0.90	1.5	18.1	571	7068C034
24	0.55	1.1	14.7	0.90	1.5	19.5	646	7068C037
27	0.55	1.1	15.0	0.90	1.5	19.8	810	7068C040
30	0.55	1.2	15.7	0.90	1.5	20.5	828	7068C043
37	0.55	1.2	16.9	0.90	1.6	21.9	965	7068C046
40	0.55	1.2	17.6	1.25	1.6	23.3	1016	7068C049
0.75 mm²/7								
2	0.55	0.9	6.5	0.90	1.3	10.9	223	7068C052
3	0.55	0.9	6.9	0.90	1.3	11.3	248	7068C055
4	0.55	0.9	7.4	0.90	1.3	11.8	270	7068C058
5	0.55	0.9	8.1	0.90	1.4	12.7	323	7068C061
8	0.55	1.0	9.7	0.90	1.4	14.3	384	7068C067
10	0.55	1.0	11.1	0.90	1.4	15.7	463	7068C070
12	0.55	1.0	11.5	0.90	1.4	16.1	479	7068C073
14	0.55	1.1	12.2	0.90	1.5	17.0	528	7068C076
16	0.55	1.1	12.9	0.90	1.5	17.7	574	7068C079
20	0.55	1.1	14.3	0.90	1.5	19.1	671	7068C085
24	0.55	1.2	16.0	0.90	1.5	20.8	879	7068C088
27	0.55	1.2	16.3	0.90	1.6	21.3	931	7068C091
30	0.55	1.2	16.9	0.90	1.6	21.9	989	7068C094
37	0.55	1.2	18.2	1.25	1.6	23.9	1105	7068C097
40	0.55	1.3	19.1	1.25	1.6	24.8	1184	7068C100

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1 mm²/7								
2	0.55	0.9	6.9	0.90	1.3	11.3	240	7068C103
3	0.55	0.9	7.3	0.90	1.3	11.7	262	7068C106
4	0.55	0.9	7.9	0.90	1.4	12.5	300	7068C109
5	0.55	0.9	8.6	0.90	1.4	13.2	333	7068C112
8	0.55	1.0	10.3	0.90	1.4	14.9	413	7068C118
10	0.55	1.0	11.9	0.90	1.4	16.5	501	7068C121
12	0.55	1.0	12.2	0.90	1.5	17.0	535	7068C124
14	0.55	1.1	13.0	0.90	1.5	17.8	592	7068C127
16	0.55	1.1	13.7	0.90	1.5	18.5	651	7068C130
20	0.55	1.1	15.2	0.90	1.5	20.0	866	7068C136
24	0.55	1.2	17.0	0.90	1.6	22.0	980	7068C139
27	0.55	1.2	17.4	1.25	1.6	23.1	1033	7068C142
30	0.55	1.2	18.0	1.25	1.6	23.7	1088	7068C145
37	0.55	1.3	19.6	1.25	1.6	25.3	1273	7068C148
40	0.55	1.3	20.4	1.25	1.7	26.3	1323	7068C151
1.3 mm²/7								
2	0.6	0.9	7.4	0.90	1.3	11.8	276	7068C154
3	0.6	0.9	7.9	0.90	1.3	12.3	0	7068C157
4	0.6	0.9	8.5	0.90	1.4	13.1	341	7068C160
5	0.6	1.0	9.5	0.90	1.4	14.1	373	7068C163
8	0.6	1.0	11.2	0.90	1.4	15.8	471	7068C169
10	0.6	1.1	13.2	0.90	1.5	18.0	579	7068C172
12	0.6	1.1	13.6	0.90	1.5	18.4	635	7068C175
14	0.6	1.1	14.3	0.90	1.5	19.1	700	7068C178
16	0.6	1.1	15.0	0.90	1.5	19.8	872	7068C181
20	0.6	1.2	16.9	0.90	1.6	21.9	1016	7068C187
24	0.6	1.2	18.7	1.25	1.6	24.4	1166	7068C190
27	0.6	1.3	19.3	1.25	1.6	25.0	1229	7068C193
30	0.6	1.3	20.0	1.25	1.6	25.7	1307	7068C196
37	0.6	1.3	21.6	1.25	1.7	27.5	1507	7068C199
40	0.6	1.4	22.7	1.25	1.7	28.6	1588	7068C202

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1.5 mm²/7								
2	0.6	0.9	7.7	0.90	1.3	12.1	277	7068C205
3	0.6	0.9	8.1	0.90	1.4	12.7	313	7068C208
4	0.6	0.9	8.8	0.90	1.4	13.4	349	7068C211
5	0.6	1.0	9.8	0.90	1.4	14.4	393	7068C214
8	0.6	1.0	11.6	0.90	1.4	16.2	533	7068C220
10	0.6	1.2	13.9	0.90	1.5	18.7	632	7068C223
12	0.6	1.1	14.1	0.90	1.5	18.9	672	7068C226
14	0.6	1.1	14.8	0.90	1.5	19.6	727	7068C229
16	0.6	1.1	15.6	0.90	1.5	20.4	903	7068C232
20	0.6	1.2	17.6	1.25	1.6	23.3	1066	7068C238
24	0.6	1.3	19.6	1.25	1.6	25.3	1251	7068C241
27	0.6	1.3	20.1	1.25	1.6	25.8	1294	7068C244
30	0.6	1.3	20.8	1.25	1.7	26.7	1390	7068C247
37	0.6	1.4	22.6	1.25	1.7	28.5	1624	7068C250
40	0.6	1.4	23.6	1.25	1.7	29.5	1692	7068C253
2.5 mm²/7								
2	0.7	0.9	8.9	0.90	1.4	13.5	346	7068C256
3	0.7	1.0	9.7	0.90	1.4	14.3	379	7068C259
4	0.7	1.0	10.5	0.90	1.4	15.1	433	7068C262
5	0.7	1.0	11.9	0.90	1.4	16.5	534	7068C265
8	0.7	1.1	13.9	0.90	1.5	18.7	682	7068C271
10	0.7	1.2	16.3	0.90	1.6	21.3	928	7068C274
12	0.7	1.2	16.9	0.90	1.6	21.9	1014	7068C277
14	0.7	1.2	17.7	1.25	1.6	23.4	1102	7068C280
16	0.7	1.3	18.9	1.25	1.6	24.6	1225	7068C283
20	0.7	1.3	21.1	1.25	1.7	27.0	1428	7068C289
24	0.7	1.4	23.6	1.25	1.7	29.5	1648	7068C292
27	0.7	1.4	24.1	1.25	1.8	30.2	1777	7068C295
30	0.7	1.5	25.2	1.25	1.8	31.3	2078	7068C298
37	0.7	1.5	27.2	1.25	1.8	33.3	2396	7068C301
40	0.7	1.6	28.5	1.25	1.9	34.8	2619	7068C304

RT = Radial Thickness