

ICON[®] Instrumentation Cable Flame Retardant, Sunlight Resistant

EN 50288-7
70 °C / 300 V

Single & Multi-Triple, 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 ² , 0.75 mm ² , 1 mm ² , 1.3 mm ² , 1.5 mm ²
Insulation.....	polyethylene PE
Colour code.....	black / white / red, continuously numbered on white core (1, 2..) for multitruples
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
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 ²	0.5	0.75	1	1.3	1.5
Conductor	nom.	mm ²	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 triple:			115	115	115	115	115
up to 4 triples:			90	90	90	102	102
above 4 triples:			75	75	75	85	85
Inductance	max.	mH/km	1				
L/R (ratio)	max.	µH/Ω	25	25	25	40	40
Test voltage U _{rms} (core : core)		V	1500				
Test voltage U _{rms} (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
0.5 mm²/7								
1	0.35	0.8	5.4	0.90	1.3	9.8	193	7093E316
2	0.35	0.9	8.4	0.90	1.4	13.0	299	7093E319
4	0.35	1.0	9.8	0.90	1.4	14.4	376	7093E322
5	0.35	1.0	10.8	0.90	1.4	15.4	424	7093E325
6	0.35	1.0	12.1	0.90	1.4	16.7	485	7093E328
8	0.35	1.1	13.1	0.90	1.5	17.9	557	7093E331
10	0.35	1.1	14.7	0.90	1.5	19.5	639	7093E334
12	0.35	1.1	15.2	0.90	1.5	20.0	693	7093E337
16	0.35	1.2	17.4	0.90	1.6	22.4	854	7093E340
20	0.35	1.2	19.1	1.25	1.6	24.8	1110	7093E343
24	0.35	1.3	20.9	1.25	1.7	26.8	1278	7093E346
0.75 mm²/7								
1	0.38	0.9	6.1	0.90	1.3	10.5	214	7093E349
2	0.38	0.9	9.3	0.90	1.4	13.9	341	7093E352
4	0.38	1.0	10.9	0.90	1.4	15.5	436	7093E355
5	0.38	1.0	12.0	0.90	1.4	16.6	494	7093E358
6	0.38	1.1	13.7	0.90	1.5	18.5	589	7093E361
8	0.38	1.1	14.7	0.90	1.5	19.5	660	7093E364
10	0.38	1.2	16.7	0.90	1.5	21.5	777	7093E367
12	0.38	1.2	17.3	0.90	1.6	22.3	862	7093E370
16	0.38	1.3	19.7	1.25	1.6	25.4	1191	7093E373
20	0.38	1.3	21.7	1.25	1.7	27.6	1370	7093E376
24	0.38	1.4	23.7	1.25	1.7	29.6	1563	7093E379
1 mm²/7								
1	0.4	0.9	6.6	0.90	1.3	11.0	245	7093E382
2	0.4	1.0	10.4	0.90	1.4	15.0	393	7093E385
4	0.4	1.0	11.9	0.90	1.4	16.5	497	7093E388
5	0.4	1.0	13.2	0.90	1.5	18.0	578	7093E391
6	0.4	1.1	15.0	0.90	1.5	19.8	809	7093E394
8	0.4	1.1	16.1	0.90	1.5	20.9	769	7093E397
10	0.4	1.2	18.4	1.25	1.6	24.1	1048	7093E400
12	0.4	1.2	19.0	1.25	1.6	24.7	1145	7093E403
16	0.4	1.3	21.7	1.25	1.7	27.6	1405	7093E406
20	0.4	1.4	24.1	1.25	1.7	30.0	1643	7093E409
24	0.4	1.4	26.1	1.25	1.8	32.2	1891	7093E412

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1.3 mm²/7								
1	0.45	0.9	7.2	0.90	1.3	11.6	273	7093E415
2	0.45	1.0	11.5	0.90	1.4	16.1	450	7093E418
4	0.45	1.1	13.4	0.90	1.5	18.2	594	7093E421
5	0.45	1.1	14.8	0.90	1.5	19.6	684	7093E424
6	0.45	1.2	16.9	0.90	1.5	21.7	803	7093E427
8	0.45	1.2	18.1	1.25	1.6	23.8	1059	7093E430
10	0.45	1.3	20.7	1.25	1.7	26.6	1261	7093E433
12	0.45	1.3	21.4	1.25	1.7	27.3	1381	7093E436
16	0.45	1.4	24.4	1.25	1.8	30.5	1706	7093E439
20	0.45	1.5	27.1	1.25	1.8	33.2	2024	7093E442
24	0.45	1.6	29.6	1.60	1.9	36.6	2501	7093E445
1.5 mm²/7								
1	0.45	0.9	7.5	0.90	1.3	11.9	289	7093E448
2	0.45	1.0	11.9	0.90	1.4	16.5	474	7093E451
4	0.45	1.1	14.0	0.90	1.5	18.8	636	7093E454
5	0.45	1.1	15.4	0.90	1.5	20.2	869	7093E457
6	0.45	1.2	17.6	0.90	1.6	22.6	875	7093E460
8	0.45	1.3	19.1	1.25	1.6	24.8	1159	7093E463
10	0.45	1.3	21.6	1.25	1.7	27.5	1360	7093E466
12	0.45	1.4	22.5	1.25	1.7	28.4	1503	7093E469
16	0.45	1.5	25.7	1.25	1.8	31.8	1890	7093E472
20	0.45	1.6	28.6	1.25	1.9	34.9	2427	7093E475
24	0.45	1.7	31.1	1.60	2.0	38.3	2751	7093E478

RT = Radial Thickness