

ICON[®] Instrumentation Cable

Zero Halogen, Flame Retardant

EN 50288-7
70 °C / 300 V

Single & Multi-Triple, PE-Insulation, Collective Screen, LSZH-Sheath

RE-2Y(St)H

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; not for direct burial.
Recommended for use as fire protection measure for people and important material assets.

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
Outer sheath.....	zero halogen flame retardant compound LSZH, black; blue for intrinsically safe systems
Cable marking.....	LEONI KERPEN ICON INSTRUMENTATION CABLE 300 V LSZH 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)
Amount of halogen acid gas	IEC 60754-1 (0%)
Degree of acidity of gases	IEC 60754-2 (pH > 4.3, C < 10µS/mm)
Smoke density	IEC 61034-2 (L.T. > 60%)
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 Cable
2Y	insulation of PE
(St)	collective screen
H	LSZH Sheath
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 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	49	7645E316
2	0.35	0.9	8.4	92	7645E319
4	0.35	1.0	9.8	124	7645E322
5	0.35	1.0	10.8	155	7645E325
6	0.35	1.0	12.1	186	7645E328
8	0.35	1.1	13.1	222	7645E331
10	0.35	1.1	14.7	276	7645E334
12	0.35	1.1	15.2	325	7645E337
16	0.35	1.2	17.4	416	7645E340
20	0.35	1.2	19.1	510	7645E343
24	0.35	1.3	20.9	597	7645E346
0.75 mm²/7					
1	0.38	0.9	6.1	60	7645E349
2	0.38	0.9	9.3	114	7645E352
4	0.38	1.0	10.9	163	7645E355
5	0.38	1.0	12.0	199	7645E358
6	0.38	1.1	13.7	246	7645E361
8	0.38	1.1	14.7	297	7645E364
10	0.38	1.2	16.7	368	7645E367
12	0.38	1.2	17.3	425	7645E370
16	0.38	1.3	19.7	558	7645E373
20	0.38	1.3	21.7	685	7645E376
24	0.38	1.4	23.7	806	7645E379
1 mm²/7					
1	0.4	0.9	6.6	71	7645E382
2	0.4	1.0	10.4	135	7645E385
4	0.4	1.0	11.9	203	7645E388
5	0.4	1.0	13.2	252	7645E391
6	0.4	1.1	15.0	304	7645E394
8	0.4	1.1	16.1	381	7645E397
10	0.4	1.2	18.4	463	7645E400
12	0.4	1.2	19.0	546	7645E403
16	0.4	1.3	21.7	720	7645E406
20	0.4	1.4	24.1	884	7645E409
24	0.4	1.4	26.1	1053	7645E412

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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
1.3 mm²/7					
1	0.45	0.9	7.2	86	7645E415
2	0.45	1.0	11.5	175	7645E418
4	0.45	1.1	13.4	252	7645E421
5	0.45	1.1	14.8	319	7645E424
6	0.45	1.2	16.9	388	7645E427
8	0.45	1.2	18.1	476	7645E430
10	0.45	1.3	20.7	591	7645E433
12	0.45	1.3	21.4	697	7645E436
16	0.45	1.4	24.4	921	7645E439
20	0.45	1.5	27.1	1128	7645E442
24	0.45	1.6	29.6	1341	7645E445
1.5 mm²/7					
1	0.45	0.9	7.5	97	7645E448
2	0.45	1.0	11.9	192	7645E451
4	0.45	1.1	14.0	288	7645E454
5	0.45	1.1	15.4	356	7645E457
6	0.45	1.2	17.6	433	7645E460
8	0.45	1.3	19.1	543	7645E463
10	0.45	1.3	21.6	675	7645E466
12	0.45	1.4	22.5	782	7645E469
16	0.45	1.5	25.7	1035	7645E472
20	0.45	1.6	28.6	1271	7645E475
24	0.45	1.7	31.1	1514	7645E478

RT = Radial Thickness