

ICON[®] Instrumentation Cable Zero Halogen, Flame Retardant

EN 50288-7
70 °C / 300 V

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

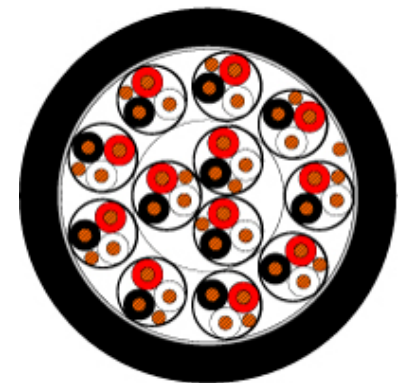
RE-2Y(St)H TIMF

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
Individual screen.....	24 µm aluminium PETP tape over solid tinned copper drain wire, 0.6 mm Ø, plastic tape under and above screen
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
TIMF	triple in metal foil
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	115				
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				

*(Test temperature + 60 °C; duration 4 h. Retention: min. 60 % of tensile strength/min. 60 % of elongation)

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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	0.35	1.0	9.7	104	7645E481
4	0.35	1.0	11.1	156	7645E484
5	0.35	1.1	12.4	183	7645E487
6	0.35	1.1	14.0	236	7645E490
8	0.35	1.1	14.9	288	7645E493
10	0.35	1.2	17.0	350	7645E496
12	0.35	1.2	17.6	386	7645E499
16	0.35	1.3	20.1	506	7645E502
20	0.35	1.4	22.3	619	7645E505
24	0.35	1.5	24.4	752	7645E508
0.75 mm²/7					
2	0.38	1.0	10.6	125	7645E511
4	0.38	1.1	12.4	187	7645E514
5	0.38	1.1	13.7	238	7645E517
6	0.38	1.1	15.4	281	7645E520
8	0.38	1.2	16.7	364	7645E523
10	0.38	1.3	19.0	448	7645E526
12	0.38	1.3	19.7	497	7645E529
16	0.38	1.4	22.5	655	7645E532
20	0.38	1.5	24.9	802	7645E535
24	0.38	1.6	27.2	970	7645E538
1 mm²/7					
2	0.4	1.0	11.5	154	7645E541
4	0.4	1.1	13.4	228	7645E544
5	0.4	1.1	14.8	287	7645E547
6	0.4	1.2	16.9	350	7645E550
8	0.4	1.2	18.1	445	7645E553
10	0.4	1.3	20.7	547	7645E556
12	0.4	1.3	21.4	624	7645E559
16	0.4	1.4	24.4	822	7645E562
20	0.4	1.5	27.1	1005	7645E565
24	0.4	1.6	29.6	1212	7645E568
1.3 mm²/7					
2	0.45	1.1	12.8	186	7645E571
4	0.45	1.1	14.7	284	7645E574
5	0.45	1.2	16.5	358	7645E577
6	0.45	1.3	18.8	427	7645E580
8	0.45	1.3	20.1	551	7645E583
10	0.45	1.4	23.0	684	7645E586
12	0.45	1.5	24.0	769	7645E589
16	0.45	1.6	27.4	1025	7645E592
20	0.45	1.7	30.4	1256	7645E595
24	0.45	1.8	33.1	1516	7645E598

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1.5 mm²/7					
2	0.45	1.1	13.2	199	7645E601
4	0.45	1.2	15.4	322	7645E604
5	0.45	1.2	17.1	397	7645E607
6	0.45	1.3	19.5	484	7645E610
8	0.45	1.4	21.1	616	7645E613
10	0.45	1.5	24.1	768	7645E616
12	0.45	1.5	24.9	870	7645E619
16	0.45	1.6	28.4	1144	7645E622
20	0.45	1.7	31.6	1404	7645E625
24	0.45	1.8	34.4	1698	7645E628

RT = Radial Thickness