

ICON[®] Instrumentation Cable Zero Halogen, Flame Retardant

EN 50288-7
90 °C / 300 V

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

RE-2X(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.....	cross-linked polyethylene XLPE
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 90 °C (during operation)
-5 °C up to 50 °C (during installation)
Min. bending radius:
7.5 x cable-Ø

Abbreviations

RE-	Instrumentation Cable
2X	insulation of XLPE
(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	7076E481
4	0.35	1.0	11.1	151	7076E484
5	0.35	1.1	12.4	183	7076E487
6	0.35	1.1	14.0	225	7076E490
8	0.35	1.1	14.9	283	7076E493
10	0.35	1.2	17.0	348	7076E496
12	0.35	1.2	17.6	385	7076E499
16	0.35	1.3	20.1	504	7076E502
20	0.35	1.4	22.3	616	7076E505
24	0.35	1.5	24.4	749	7076E508
0.75 mm²/7					
2	0.38	1.0	10.6	121	7076E511
4	0.38	1.1	12.4	186	7076E514
5	0.38	1.1	13.7	242	7076E517
6	0.38	1.1	15.4	280	7076E520
8	0.38	1.2	16.7	362	7076E523
10	0.38	1.3	19.0	446	7076E526
12	0.38	1.3	19.7	495	7076E529
16	0.38	1.4	22.5	652	7076E532
20	0.38	1.5	24.9	833	7076E535
24	0.38	1.6	27.2	966	7076E538
1 mm²/7					
2	0.4	1.0	11.5	154	7076E541
4	0.4	1.1	13.4	227	7076E544
5	0.4	1.1	14.8	286	7076E547
6	0.4	1.2	16.9	348	7076E550
8	0.4	1.2	18.1	443	7076E553
10	0.4	1.3	20.7	545	7076E556
12	0.4	1.3	21.4	621	7076E559
16	0.4	1.4	24.4	836	7076E562
20	0.4	1.5	27.1	1001	7076E565
24	0.4	1.6	29.6	1207	7076E568
1.3 mm²/7					
2	0.45	1.1	12.8	185	7076E571
4	0.45	1.1	14.7	283	7076E574
5	0.45	1.2	16.5	357	7076E577
6	0.45	1.3	18.8	425	7076E580
8	0.45	1.3	20.1	553	7076E583
10	0.45	1.4	23.0	682	7076E586
12	0.45	1.5	24.0	767	7076E589
16	0.45	1.6	27.4	1022	7076E592
20	0.45	1.7	30.4	1252	7076E595
24	0.45	1.8	33.1	1511	7076E598

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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	0.45	1.1	13.2	207	7076E601
4	0.45	1.2	15.4	314	7076E604
5	0.45	1.2	17.1	396	7076E607
6	0.45	1.3	19.5	482	7076E610
8	0.45	1.4	21.1	617	7076E613
10	0.45	1.5	24.1	765	7076E616
12	0.45	1.5	24.9	867	7076E619
16	0.45	1.6	28.4	1140	7076E622
20	0.45	1.7	31.6	1421	7076E625
24	0.45	1.8	34.4	1691	7076E628

RT = Radial Thickness