

ICON[®] Instrumentation Cable Flame Retardant, Sunlight Resistant

EN 50288-7
70 °C / 300 V

Multi-Triple, PE-Insulation, Individual & Collective Screen, Armour, PVC Sheath

RE-2Y(St)YSWAY-fl 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; 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
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
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 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
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 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				

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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								
2	0.35	1.0	9.7	0.90	1.4	14.3	346	7093E481
4	0.35	1.0	11.1	0.90	1.4	15.7	426	7093E484
5	0.35	1.1	12.4	0.90	1.5	17.2	505	7093E487
6	0.35	1.1	14.0	0.90	1.5	18.8	576	7093E490
8	0.35	1.1	14.9	0.90	1.5	19.7	648	7093E493
10	0.35	1.2	17.0	1.25	1.6	22.7	891	7093E496
12	0.35	1.2	17.6	1.25	1.6	23.3	960	7093E499
16	0.35	1.3	20.1	1.25	1.7	26.0	1165	7093E502
20	0.35	1.4	22.3	1.25	1.7	28.2	1343	7093E505
24	0.35	1.5	24.4	1.25	1.8	30.5	1543	7093E508
0.75 mm²/7								
2	0.38	1.0	10.6	0.90	1.4	15.2	392	7093E511
4	0.38	1.1	12.4	0.90	1.5	17.2	509	7093E514
5	0.38	1.1	13.7	0.90	1.5	18.5	579	7093E517
6	0.38	1.1	15.4	0.90	1.5	20.2	664	7093E520
8	0.38	1.2	16.7	0.90	1.6	21.7	777	7093E523
10	0.38	1.3	19.0	1.25	1.6	24.7	1050	7093E526
12	0.38	1.3	19.7	1.25	1.7	25.6	1135	7093E529
16	0.38	1.4	22.5	1.25	1.7	28.4	1380	7093E532
20	0.38	1.5	24.9	1.25	1.8	31.0	1815	7093E535
24	0.38	1.6	27.2	1.25	1.9	33.5	1873	7093E538
1 mm²/7								
2	0.4	1.0	11.5	0.90	1.4	16.1	435	7093E541
4	0.4	1.1	13.4	0.90	1.5	18.2	571	7093E544
5	0.4	1.1	14.8	0.90	1.5	19.6	654	7093E547
6	0.4	1.2	16.9	0.90	1.5	21.7	766	7093E550
8	0.4	1.2	18.1	1.25	1.6	23.8	1019	7093E553
10	0.4	1.3	20.7	1.25	1.7	26.6	1209	7093E556
12	0.4	1.3	21.4	1.25	1.7	27.3	1308	7093E559
16	0.4	1.4	24.4	1.25	1.7	30.3	1595	7093E562
20	0.4	1.5	27.1	1.25	1.8	33.2	1905	7093E565
24	0.4	1.6	29.6	1.60	1.9	36.6	2369	7093E568

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1.3 mm²/7								
2	0.45	1.1	12.8	0.90	1.5	17.6	508	7093E571
4	0.45	1.1	14.7	0.90	1.5	19.5	649	7093E574
5	0.45	1.2	16.5	0.90	1.6	21.5	901	7093E577
6	0.45	1.3	18.8	1.25	1.6	24.5	1038	7093E580
8	0.45	1.3	20.1	1.25	1.7	26.0	1205	7093E583
10	0.45	1.4	23.0	1.25	1.8	29.1	1435	7093E586
12	0.45	1.5	24.0	1.25	1.8	30.1	1570	7093E589
16	0.45	1.6	27.4	1.25	1.9	33.7	1947	7093E592
20	0.45	1.7	30.4	1.60	2.0	37.6	2481	7093E595
24	0.45	1.8	33.1	1.60	2.0	40.3	2831	7093E598
1.5 mm²/7								
2	0.45	1.1	13.2	0.90	1.5	18.0	534	7093E601
4	0.45	1.2	15.4	0.90	1.5	20.2	702	7093E604
5	0.45	1.2	17.1	1.25	1.6	22.8	948	7093E607
6	0.45	1.3	19.5	1.25	1.6	25.2	1108	7093E610
8	0.45	1.4	21.1	1.25	1.7	27.0	1303	7093E613
10	0.45	1.5	24.1	1.25	1.8	30.2	1555	7093E616
12	0.45	1.5	24.9	1.25	1.8	31.0	1702	7093E619
16	0.45	1.6	28.4	1.60	1.9	35.4	2278	7093E622
20	0.45	1.7	31.6	1.60	2.0	38.8	2678	7093E625
24	0.45	1.8	34.4	1.60	2.1	41.8	3065	7093E628

RT = Radial Thickness