LEONI

ICON® Instrumentation Cable

EN 50288-7

Flame Retardant, Sunlight Resistant

90 °C / 300 V

Single & Multi-Pair, XLPE-Insulation, Collective Screen, PVC-Sheath

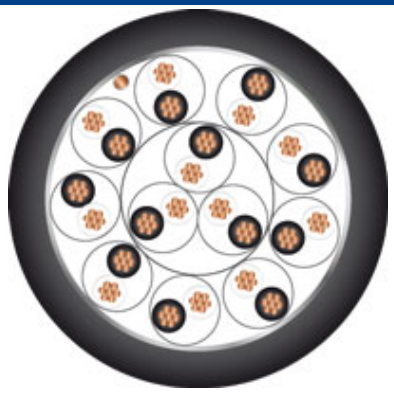
RE-2X(St)Y-fl

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; not for direct burial.

Construction

Conductor	plain annealed copper wire, 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, continuously numbered on white core (1, 2, 3..) for multi-element
Wrapping	at least 1 layer of plastic tape
Collective screen	24 µm aluminium / PETP tape over tinned copper drain wire, 0.5 mm^2
Outer sheath	polyvinyl chloride PVC, black, blue for intrinsically safe systems
Cable marking	LEONI KERPEN ICON INSTRUMENTATION CABLE SIZE 300V RP EN 50288-7 CE PRODUCTION LOT CODE LENGTH MARKING



Technical data

Flame propagation	
- Test on single cable	IEC 60332-1-2
- Test on bunched cables	IEC 60332-3-24 (Cat.C)
Limiting Oxygen Index (LOI)	ASTM D 2863 (min. 30 %)
Flammability temperature (FT)	ISO 4589-3 ann. A (min. +250 ° C)
Amount of halogen acid gas	IEC 60754-1 (max. 23 %)
Oil resistance	ICEA S-73-532
Sunlight resistance	UL 1581 section 1200

Temperature range

-30°C up to +90°C (during operation)
-5°C up to +50°C (during installation)

Minimum bending radius

7.5 x cable diameter

Abbreviations

RE-	Instrumentation Cable
2X	XLPE insulation
(St)	collective screen
Y	PVC outer sheath
-fl	reduced flame propagation

Electrical Properties at 20 °C

Conductor cross-section	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	150	150	150	150	150
Inductance	max.	mH/km			1		
Capacitance unbalance	max.	pF/500 m			500		
L/R ratio	max.	µH/Ω		25		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 elements	RT of insulation nom. (mm)	RT of outer sheath nom. (mm)	Outer dia. approx. (mm)	Weight approx. (kg/km)	Part No. Colour black
0.5 mm²/7					
1	0.35	0.8	5.2	38	7128E001
2	0.35	0.9	7.6	66	7128E004
4	0.35	0.9	8.8	93	7128E007
5	0.35	1.0	9.8	116	7128E151
6	0.35	1.0	10.6	136	7128E010
8	0.35	1.1	11.5	164	7128E013
10	0.35	1.1	12.9	198	7128E016
12	0.35	1.2	13.7	233	7128E019
16	0.35	1.1	15.2	291	7128E022
20	0.35	1.2	16.9	356	7128E025
24	0.35	1.3	18.5	428	7128E028
0.75 mm²/7					
1	0.38	0.8	5.8	45	7128E031
2	0.38	0.9	8.5	82	7128E034
4	0.38	1.0	10.0	122	7128E037
5	0.38	1.0	10.9	147	7128E154
6	0.38	1.0	11.8	174	7128E040
8	0.38	1.1	12.8	211	7128E043
10	0.38	1.1	14.5	256	7128E046
12	0.38	1.1	15.1	294	7128E049
16	0.38	1.2	17.3	388	7128E052
20	0.38	1.4	19.4	486	7128E055
24	0.38	1.3	20.8	572	7128E058
1 mm²/7					
1	0.40	0.9	6.3	55	7128E061
2	0.40	1.0	9.4	100	7128E064
4		1.1	11.1	155	7128E067
5	0.40	1.0	11.9	183	7128E157
6	0.40	1.0	13.0	224	7128E070
8	0.40	1.1	14.0	266	7128E073
10	0.40	1.1	15.9	333	7128E076
12		1.3	17.0	379	7128E079
16	0.40	1.4	19.4	504	7128E082
20	0.40	1.3	21.1	605	7128E085
24	0.40	1.4	23.1	719	7128E088

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No. of elements	RT of insulation nom. (mm)	RT of outer sheath nom. (mm)	Outer dia. approx. (mm)	Weight approx. (kg/km)	Part No. Colour black
1.3 mm²/7					
1	0.45	0.9	6.8	64	7128E091
2	0.45	1.0	10.4	122	7128E094
4	0.45	1.1	12.2	189	7128E097
5	0.45	1.1	13.4	230	7128E160
6	0.45	1.1	14.6	288	7128E100
8	0.45	1.2	15.7	335	7128E103
10	0.45	1.2	17.9	412	7128E106
12	0.45	1.4	19.1	494	7128E109
16	0.45	1.3	21.4	624	7128E112
20	0.45	1.4	23.8	774	7128E115
24	0.45	1.5	25.9	920	7128E118
1.5 mm²/7					
1	0.45	0.9	7.1	70	7128E121
2	0.45	1.0	10.8	136	7128E124
4	0.45	1.1	12.7	209	7128E127
5	0.45	1.2	14.2	264	7128E163
6	0.45	1.1	15.2	306	7128E130
8	0.45	1.2	16.4	378	7128E133
10	0.45	1.4	18.8	469	7128E136
12	0.45	1.3	19.7	573	7128E139
16	0.45	1.4	22.5	714	7128E142
20	0.45	1.6	25.2	889	7128E145
24	0.45	1.5	27.1	1050	7128E148

RT = Radial Thickness