

### Flame Retardant, Sunlight Resistant

90 °C / 300 V

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

#### RE-2X(St)Yv-fi

#### 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. (Please note the relevant legal / local installation requirements)

#### Construction

Conductor.....	plain annealed copper wire, stranded, size: 0.5 mm <sup>2</sup> , 0.75 mm <sup>2</sup> , 1 mm <sup>2</sup> , 1.3 mm <sup>2</sup> , 1.5 mm <sup>2</sup> , 2.5 mm <sup>2</sup>
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 <sup>2</sup>
Outer sheath.....	polyvinyl chloride PVC, reinforced, 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
Yv	PVC outer sheath, reinforced
-fi	reduced flame propagation

#### Electrical Properties at 20 °C

	nom.	mm <sup>2</sup>	0.5	0.75	1	1.3	1.5	2.5
Conductor cross-section	nom.	mm <sup>2</sup>	0.5	0.75	1	1.3	1.5	2.5
Conductor resistance	max.	Ω/km	36.7	25.0	18.5	14.2	12.3	7.6
Insulation resistance	min.	MΩ x km	5000					
Mutual capacitance	max.	nF/km						
single element:			115	115	115	115	115	115
2 to 4 elements:			90	90	90	102	102	102
above 4 elements:			75	75	75	85	85	85
Inductance	max.	mH/km	1					
Capacitance unbalance	max.	pF/500 m	500					
L/R ratio	max.	µH/Ω	25		40		60	
Test voltage U <sub>rms</sub> (core : core)		V	1500					
Test voltage U <sub>rms</sub> (core : screen)		V	1500					
Operating voltage		V	300					

### Flame Retardant, Sunlight Resistant

90 °C / 300 V

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

#### RE-2X(St)Yv-fl

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
<b>0.5 mm<sup>2</sup>/7</b>					
6503 0202	1	0.35	1.8	7.2	71 LKX7328E0010000
6503 0402	2	0.35	1.8	9.4	108 LKX7328E0040000
6503 0802	4	0.35	1.8	10.6	140 LKX7328E0070000
	5	0.35	1.8	11.4	163 LKX7328E1510000
	6	0.35	1.8	12.2	187 LKX7328E0100000
6503 1602	8	0.35	1.8	12.9	213 LKX7328E0130000
	10	0.35	1.8	14.3	252 LKX7328E0160000
6503 2402	12	0.35	1.8	14.9	283 LKX7328E0190000
6503 3202	16	0.35	1.8	16.6	353 LKX7328E0220000
	20	0.35	1.8	18.1	406 LKX7328E0250000
6503 4802	24	0.35	1.8	19.5	471 LKX7328E0280000
<b>0.75 mm<sup>2</sup>/7</b>					
6504 0202	1	0.38	1.8	7.7	78 LKX7328E0310000
6504 0402	2	0.38	1.8	10.3	125 LKX7328E0340000
6504 0802	4	0.38	1.8	11.6	165 LKX7328E0370000
	5	0.38	1.8	12.5	199 LKX7328E1540000
	6	0.38	1.8	13.4	229 LKX7328E0400000
6504 1602	8	0.38	1.8	14.2	259 LKX7328E0430000
	10	0.38	1.8	15.9	317 LKX7328E0460000
6504 2402	12	0.38	1.8	16.5	358 LKX7328E0490000
6504 3202	16	0.38	1.8	18.5	441 LKX7328E0520000
	20	0.38	1.8	20.2	536 LKX7328E0550000
6504 4802	24	0.38	1.8	21.8	610 LKX7328E0580000
<b>1 mm<sup>2</sup>/7</b>					
	1	0.40	1.8	8.1	90 LKX7328E0610000
	2	0.40	1.8	11.0	146 LKX7328E0640000
	4	0.40	1.8	12.5	200 LKX7328E0670000
	5	0.40	1.8	13.5	236 LKX7328E1570000
	6	0.40	1.8	14.6	276 LKX7328E0700000
	8	0.40	1.8	15.4	321 LKX7328E0730000
	10	0.40	1.8	17.3	386 LKX7328E0760000
	12	0.40	1.8	18.0	442 LKX7328E0790000
	16	0.40	1.8	20.2	558 LKX7328E0820000
	20	0.40	1.8	22.1	666 LKX7328E0850000
	24	0.40	1.8	23.9	778 LKX7328E0880000

### Flame Retardant, Sunlight Resistant

90 °C / 300 V

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

#### RE-2X(St)Yv-fl

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
<b>1.3 mm<sup>2</sup>/7</b>					
6507 0202	1	0.45	1.8	8.6	101 LKX7328E0910000
6507 0402	2	0.45	1.8	12.0	171 LKX7328E0940000
6507 0802	4	0.45	1.8	13.6	239 LKX7328E0970000
	5	0.45	1.8	14.8	286 LKX7328E1600000
	6	0.45	1.8	16.0	332 LKX7328E1000000
6507 1602	8	0.45	1.8	16.9	391 LKX7328E1030000
	10	0.45	1.8	19.1	474 LKX7328E1060000
6507 2402	12	0.45	1.8	19.9	541 LKX7328E1090000
6507 3202	16	0.45	1.8	22.4	679 LKX7328E1120000
	20	0.45	1.8	24.6	832 LKX7328E1150000
6507 4802	24	0.45	1.8	26.5	954 LKX7328E1180000
<b>1.5 mm<sup>2</sup>/7</b>					
	1	0.45	1.8	8.9	109 LKX7328E1210000
	2	0.45	1.8	12.4	188 LKX7328E1240000
	4	0.45	1.8	14.1	261 LKX7328E1270000
	5	0.45	1.8	15.4	313 LKX7328E1630000
	6	0.45	1.8	16.6	364 LKX7328E1300000
	8	0.45	1.8	17.6	433 LKX7328E1330000
	10	0.45	1.8	19.8	526 LKX7328E1360000
	12	0.45	1.8	20.7	605 LKX7328E1390000
	16	0.45	1.8	23.3	772 LKX7328E1420000
	20	0.45	1.8	25.6	933 LKX7328E1450000
	24	0.45	1.8	27.7	1091 LKX7328E1480000
<b>2.5 mm<sup>2</sup>/7</b>					
	1	0.55	1.8	10.1	142 LKX7328E9550000
	4	0.55	1.8	16.7	361 LKX7328E9570000
	12	0.55	1.8	24.9	877 LKX7328E9620000

RT = Radial Thickness