

**Description**

<p>LJ M 12 M - 5 N 1</p> <p>Operation mode 1: NO 2: NC 4: NO+NC</p> <p>Output A: AC (2-wire) type D: DC (2-wire) type N: NPN type P: PNP type</p> <p>Sensing distance(mm)</p> <p>Installation None: Flush M: Non-flush</p> <p>Diameter of head(mm)</p> <p>Short cylindrical type</p> <p>Inductive proximity sensor</p>	<p>LJM8(Diameter: <math>\Phi 8</math>, length: 30mm)</p>	<p>LJM12(Diameter: <math>\Phi 12</math>, length: 45mm)</p>
	<p>LJM18(Diameter: <math>\Phi 18</math>, length: 50mm)</p>	<p>LJM30(Diameter: <math>\Phi 30</math>, length: 50mm)</p>

**Specification**

Sensing object	Ferrous metal: Iron, copper, steel, aluminium, nickel and so on.
Differential travel	10% max. of sensing distance
Power Supply Voltage	DC(NPN, PNP, 2-wire) type: DC12-24V ripple(p-p): 10% max. AC type: 90-250V 50/60Hz
Current consumption	DC(NPN, PNP, 2-wire) type: 8mA/12V, 15mA/24V AC type: 5mA max.
Control output	DC(NPN, PNP) type: 300mA max. DC(2-wire) type: 3-100mA max. AC type: 10-300mA max.
Protection circuits	DC(NPN, PNP, 2-wire) type: Load short-circuit protection AC type: Surge suppressor
Ambient temperature	-25 to 65°C (with no icing)
Ambient humidity	35% to 95% RH
Temperature influence	$\pm 15\%$ max. of sensing distance at 23°C in the temperature range of -25 to 65°C
Voltage influence	$\pm 15\%$ max. of sensing distance at rated voltage in the rated voltage $\pm 15\%$ range
Residual voltage	DC(NPN, PNP) type: 1V max. DC(2-wire) type: 3V max. AC(2-wire) type: 7V max.
Insulation resistance	50m $\Omega$ min. (at 500VDC) between current-carrying parts and case(Load current: 100mA max., Cable length: 2m)
Dielectric strength	DC(NPN, PNP, 2-wire) type: 1,000VAC, 50/60Hz for 1 minute between current-carrying parts and case AC(2-wire) type: 2,000VAC, 50/60Hz for 1 minute between current-carrying parts and case
Vibration resistance	Destruction : 10 to 55Hz, 1.5mm double amplitude for 2 hours each in X, Y, and Z directions
Shock resistance	Destruction : 500m/s(about 50g) 10 times each in X, Y, and Z directions
Degree of protection	IP54~IP67
Materials	Case: Nickel-plated brass Sensing surface: Heat-resistant ABS

**Model**

Model		LJM8 series		LJM12 series		LJM18 series		LJM30 series		
Installation		Flush	Non-flush	Flush	Non-flush	Flush	Non-flush	Flush	Non-flush	
DC type	NPN	NO	LJM8-1.5N1	LJM8M-2N1	LJM12-2N1	LJM12M-5N1	LJM18-5N1	LJM18M-10N1	LJM30-10N1	LJM30M-18N1
		NC	LJM8-1.5N2	LJM8M-2N2	LJM12-2N2	LJM12M-5N2	LJM18-5N2	LJM18M-10N2	LJM30-10N2	LJM30M-18N2
		NO+NC	/	/	LJM12-2N4	LJM12M-5N4	LJM18-5N4	LJM18M-10N4	LJM30-10N4	LJM30M-18N4
	PNP	NO	LJM8-1.5P1	LJM8M-2P1	LJM12-2P1	LJM12M-5P1	LJM18-5P1	LJM18M-10P1	LJM30-10P1	LJM30M-18P1
		NC	LJM8-1.5P2	LJM8M-2P2	LJM12-2P2	LJM12M-5P2	LJM18-5P2	LJM18M-10P2	LJM30-10P2	LJM30M-18P2
		NO+NC	/	/	LJM12-2P4	LJM12M-5P4	LJM18-5P4	LJM18M-10P4	LJM30-10P4	LJM30M-18P4
2 wire	NO	LJM8-1.5D1	LJM8M-2D1	LJM12-2D1	LJM12M-5D1	LJM18-5D1	LJM18M-10D1	LJM30-10D1	LJM30M-18D1	
	NC	LJM8-1.5D2	LJM8M-2D2	LJM12-2D2	LJM12M-5D2	LJM18-5D2	LJM18M-10D2	LJM30-10D2	LJM30M-18D2	
AC type	2 wire	NO	/	/	LJM12-2A1	LJM12M-5A1	LJM18-5A1	LJM18M-10A1	LJM30-10A1	LJM30M-18A1
		NC	/	/	LJM12-2A2	LJM12M-5A2	LJM18-5A2	LJM18M-10A2	LJM30-10A2	LJM30M-18A2
Sensing distance		1.5mm $\pm 10\%$	2mm $\pm 10\%$	2mm $\pm 10\%$	5mm $\pm 10\%$	5mm $\pm 10\%$	10mm $\pm 10\%$	10mm $\pm 10\%$	18mm $\pm 10\%$	
Response frequency	DC	1.5KHz	0.8KHz	0.8KHz	0.4KHz	0.4KHz	0.2KHz	0.2KHz	0.1KHz	
	AC	25Hz		25Hz		25Hz		25Hz		

**Wiring Diagram**

<p>DC 3 wire NPN type NO or NC</p> <p>Max 300mA</p>	<p>DC 3 wire PNP type NO or NC</p> <p>Max 300mA</p>	<p>DC 2 wire type NO or NC</p> <p>Max 300mA</p>	<p>AC 2 wire type NO or NC</p> <p>Max 300mA</p>
<p>DC 4 wire NPN type NO+NC</p> <p>Max 300mA</p>	<p>DC 4 wire PNP type NO+NC</p> <p>Max 300mA</p>		

**Dimension(mm)**

Type	Model	a	b	c	d	e	f	g
Flush	LJM8 series	32 $\pm 0.5$	32 $\pm 0.5$	-	3.5	M8 $\times 1$	12	(15)
Non-flush	LJM8M series	37 $\pm 0.5$	34 $\pm 0.5$	5	4	M12 $\times 1$	17	(21)
Flush	LJM12 series	45 $\pm 0.5$	30 $\pm 0.5$	-	4	M18 $\times 1$	24	(30)
Non-flush	LJM12M series	45 $\pm 0.5$	25 $\pm 0.5$	5	4.7	M30 $\times 1.5$	36.2	-
Flush	LJM18 series	52 $\pm 0.5$	30 $\pm 0.5$	-	4.7	M30 $\times 1.5$	36.2	-
Non-flush	LJM18M series	60 $\pm 0.5$	30 $\pm 0.5$	8.5	4.7	M30 $\times 1.5$	36.2	-
Flush	LJM30 series	60 $\pm 0.5$	40 $\pm 0.5$	-	4.7	M30 $\times 1.5$	36.2	-
Non-flush	LJM30M series	63 $\pm 0.5$	30 $\pm 0.5$	12.5	4.7	M30 $\times 1.5$	36.2	-