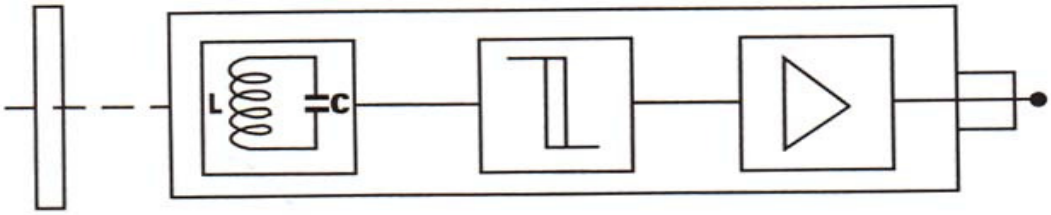
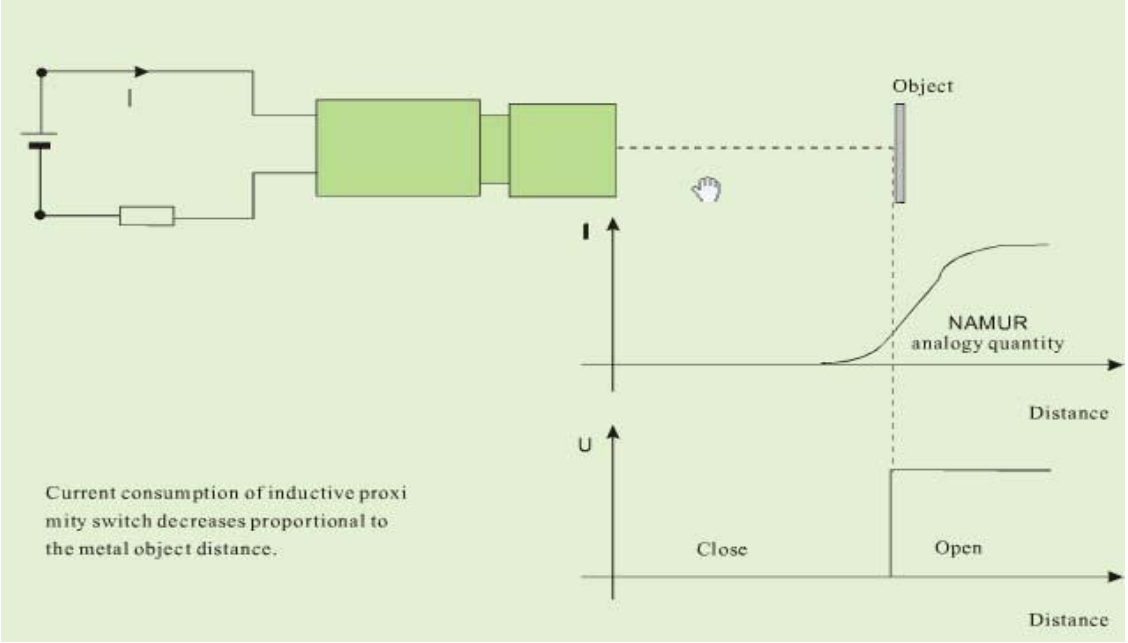
Working principle of inductive proximity switch



Object LC oscillator switching stage magnified output stage

Inductive proximity switch is composed of three parts: oscillator, switch circuit and magnified output circuit. The oscillator will generate an alternating electric field. When the metal object approaches this electric field and reaches the induction distance, whirlpool will generate in metal object, resulting in attenuation of vibration and then stop. The change of vibration and stop of oscillator is treated by behind stage magnified circuit and converted to switching sign, triggering driving control for non-contact detection.



Model explanation of proximity switch

LM 18 – 30 05 N A □

1 2 3 4 5 6 7

No	composition	Code and definition
1	Switch category	LM：inductance type CM：capacitance type SM：hall type AM：safety explosion-proof type XM：mimic linear type HM：reed type
2	Outward appearance code	□：cylinder type F□：angular column type and plane installation type
3	Working voltage	30：6-36VDC 310：5-24DVC 320：12-60VDC 20：90-250VAC 210：24-250VAC 220：380VAC 40：12-240VDC/24-240AC 50：Special voltage
4	Detection distance	01:1mm 05:5mm 10:10mm
5	Output form	N: three-wire DC NPN output P: three-wire DC PNP output L: two-wire DC output □：two-wire AC output W: AC three-wire output J: Relay contact output NP:NPN+PNP double output
6	Output state	A: Normally open(NO) B: Normally close(NC) C: normally open+normally close(NO+NC) MU: Mimic voltage MI: Mimice current
7	Subsidiary functions	T: with aviation connector Y: water proof, oil proof I: special requirement H: high temp resistance R: ring type

■Main features

◆Compact volume

◆High precision of repeated location

◆Diversified exterior

◆Good performance of anti-interference

◆Many output forms

◆High on-off frequency

◆Wide voltage range

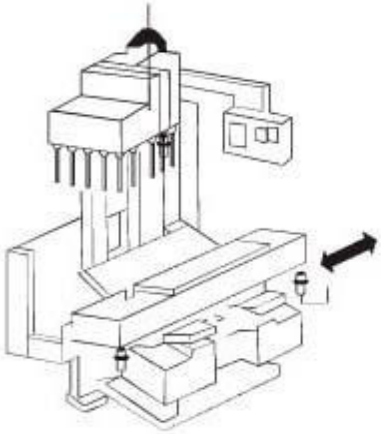
◆Dust proof, vibration proof, water proof and oil proof

◆With short-circuit protection and inverted connecting protection

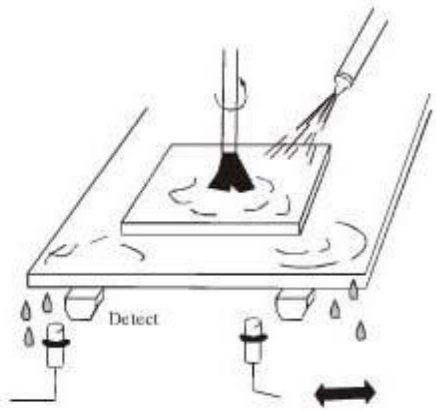
◆Long service life

■ Application illustration of proximity switch

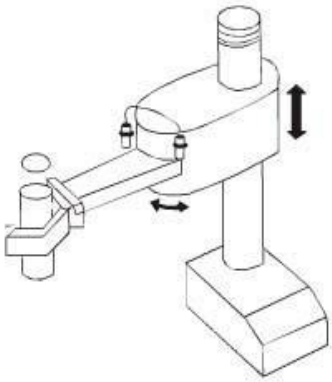
◆ Various location detection of machinery process center



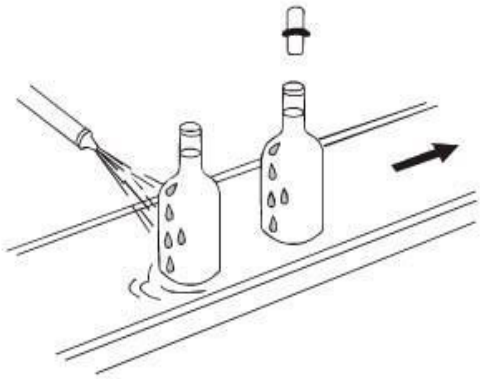
◆ Stopper detection of grinding machine



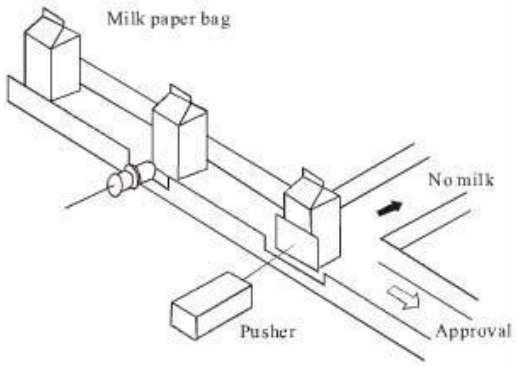
◆ Arm location detection of robot



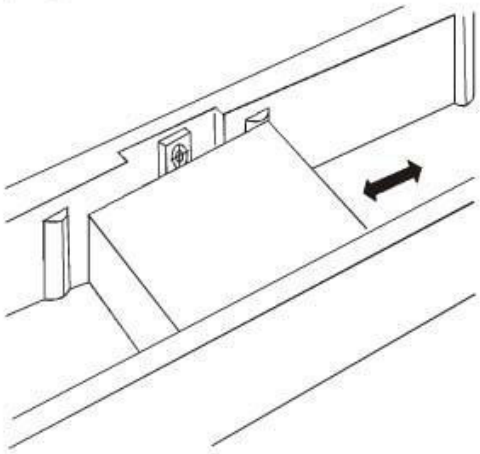
◆ Bottle lid detection



◆ Inspection of the existing of milk inside the paper package



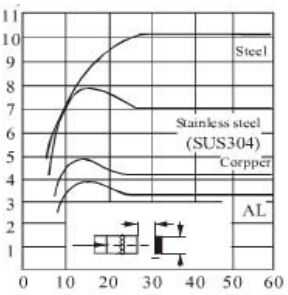
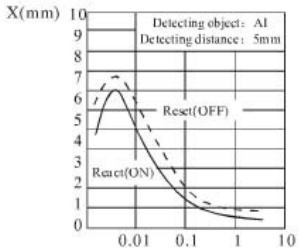
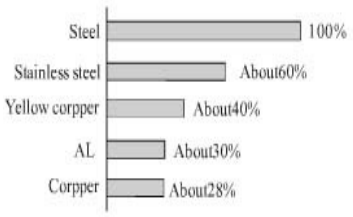
◆ Spacing detection



■ Features of proximity switch

◆ Main features

Take high frequency oscillation type proximity sensor(front detector)as representative example to briefly explain general features of proximity switch

Item	Explanation	Features
The size of detected object and detection distance	If the detected object is square metal sheet with constant thickness (t=1mm), detect at detection distance X when change its side length dmm. X(mm) 	When the detected object is bigger than standard detection distance is constant. According to different Machine type, sometimes the features will that mentioned on the left. To through type, the detection object is like cylinder metal bar
The thickness of detected object and detection distance	Detect at detection distance Xmm(front detector)when change the thickness of the assigned standard detected object 1mm. 	For more than 1mm thick magnetic metal like iron on the main, the detection distance will not change.
The effects resulted from the Thickness of detected object and cladding material	Because the detection to standard detected object will be effected by its shape, size, material, and various cladding material, confirm through detection distance Xmm measurement. 	The effects resulted from detection distance and cladding material of the metal excluded iron will be different according to different machine type On the main, the machine type which detects all the metals will not be effected by cladding material.

◆ About detected object

When the material of detected object is non magnetic metal, the distance of action should descend. But when the foil material is approximately thicker than a. 01mm, the detection distance will be the same as that of magnetic object If the film plating is extremely thin or non-conductive, detection cannot be conducted. The effect of cladding material, take note of the changing of detection distance.

◆ About ambient weather

In order to maintain reliable action and long service life, please avoid the(outdoor)occasion beyond the stipulated ambient temperature. Do not drench it with Water or water-soluble cutting lubricant when it is used with cover, although the proximity sensor is waterproof. Do not used in the occasions with chemical agents, especially strong base acid, nitric acid, hot strong sulfuric acid and so on.

◆ About maintenance and overhaul

In order to keep the proximity sensor to work stably for long time, the following regular examinations should be performed just like general control.

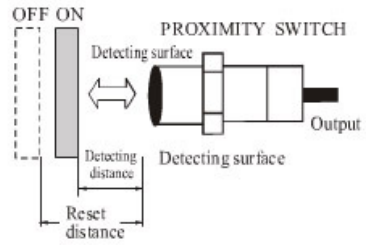
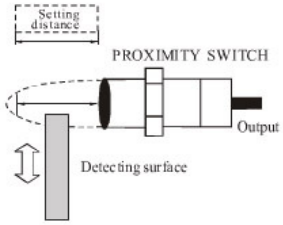
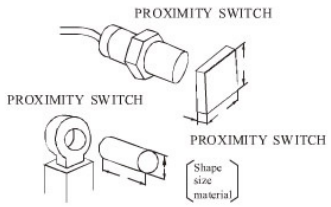
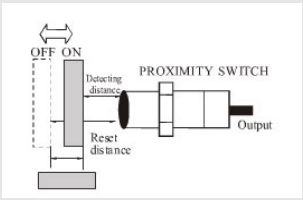
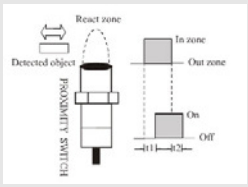
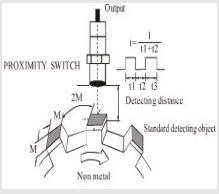
1. Check the installation position of detected object and proximity sensor if any deviation, loosening or deformation exists.
2. Check the attached wires and connecting parts if any loosening bad contact or wire breaking off exists
3. Check if there is any metallic powder accumulation or not
4. Check if the temperature condition and surrounding environment condition are normal or not
5. Check if the detection distance is normal or not

■ Features of proximity switch

◆ Main features

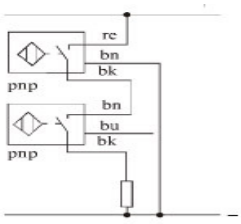
Take high frequency oscillation type proximity sensor(front detector)as representative example to briefly explain general features of proximity switch

■ Explanation of technical terms

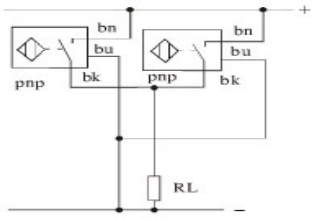
Detection distance  Move the detected object according to assigned method, the distance from the reference position (reference plane)to the detecting action(resetting)	Setting distance  Including the effects like temperature and voltage, without error action the distance passed through from the practical detection surface to the objected object.	Standard detected object  Take as standard detected object to detect the basic performance. the shape, size and material have been determined.
Differential distance  The absolute value of the distance difference between the distance to action and the distance To resetting	Response time  TI: when the objected object enters the action zone, the time from proximity sensor being in action state to output appearance. T2:the time from leaving action zone to output disappearance.	Response frequency  Work out the tracking output times per second by repeatedly approaching the detected object Brief detection method sees the above diagram

■ Series connection and parallel connection

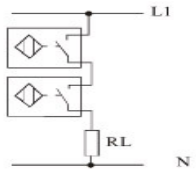
◆Series connection of three-wire DC and three-wire DC sensor



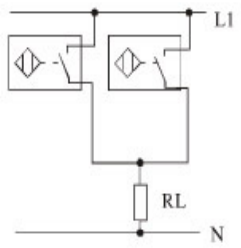
◆Parallel connection of three-wire DC and three-wire DC sensor



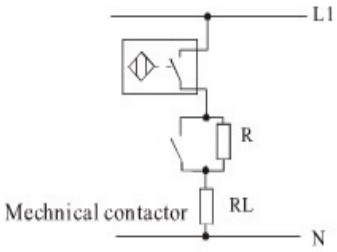
◆ Series connection of two-wire AC sensor



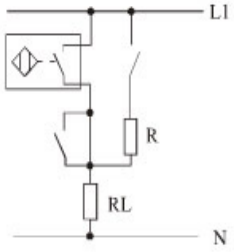
◆Parallel connection of two-wire AC sensor



◆ Series connection of machinery switch and AC sensor



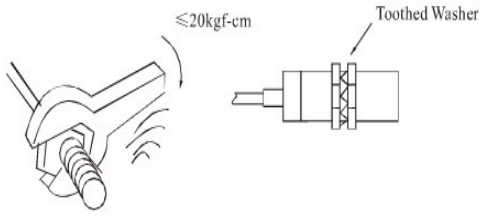
◆ Parallel connection of machinery switch and AC sensor



■ Correct use, installation and cautions

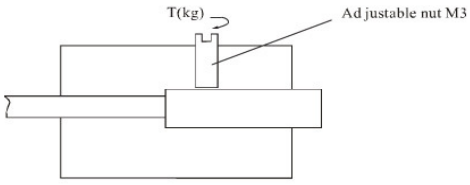
◆Mounting screw switch

◆ Do not tighten with over-torque when mounting the switch. Adopt toothed washer when tightening



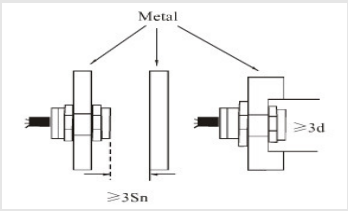
◆ Mounting non screw type pillar switch

◆ When adopt adjusting screw, the tightening torque should be within 2-4kgf-cm



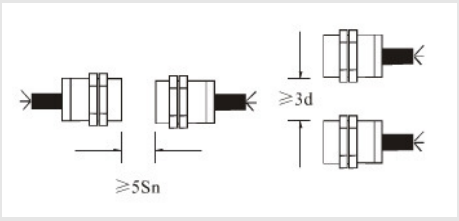
◆ Protection against the interference of non detected object

◆ When mounting the proximity switch on the metal part, do refer to the following diagram. Remain a certain space in advance according to the shown diagram so as to prevent the switch from error action



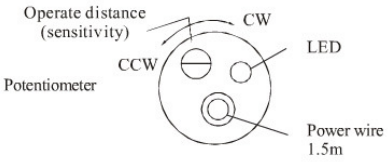
◆ Protection against mutual interference between switches

◆ Mount according to the size which is bigger than that in the following diagram to prevent the switch from error action resulted from mutual interference if mount the switches contra-positively or in parallel



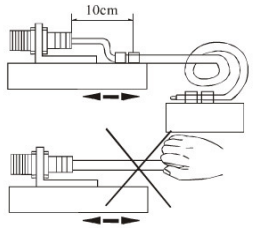
◆ Adjustable switch action distance(sensitivity)

◆ The action distance(sensitivity)of proximity switch can be adjusted by the means of trimming potentiometer. Increase the action distance and reduce sensitivity when turn clockwise. Vice versa. Do not use in the critical state of max. action distance.



◆Guard of switch lead-wire

◆ When mount switch, fix the lead-wire at a distance about 10cm from the switch with wire clip so as to prevent the switch lead-wire from damage from outer force



■ Cautions

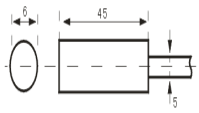
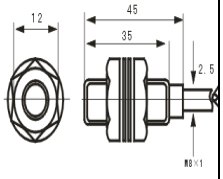
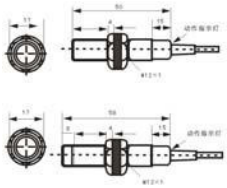
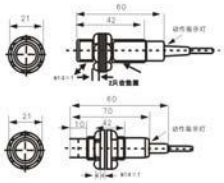
◆DC switch should adopt insulation transformer and ensure stable voltage mains corrugation.

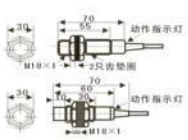
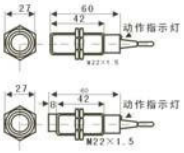
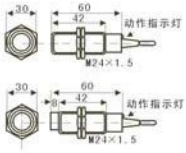
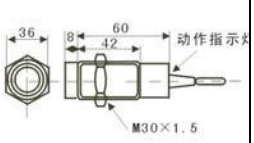
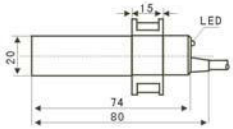
◆IF any electric power line or dynamic line passes through the surrounding of switch lead-wire, in order to prevent the switch from damage or error action, cover the metal bushing on the switch lead-wire and ground it to the earth

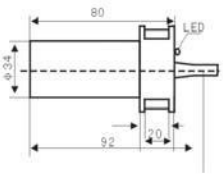
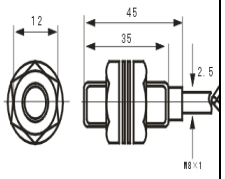
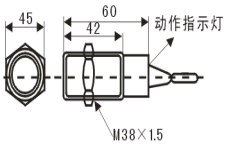
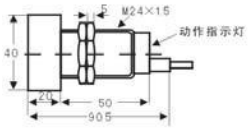
◆Set the switch use distance within the rated distance to avoid the effects from temperature and voltage

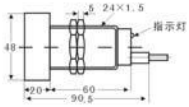
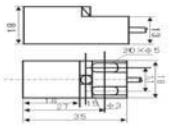
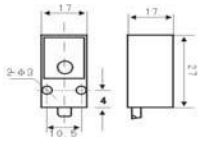
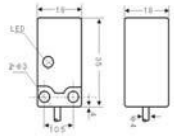
◆Wiring while power-on is strictly prohibited. Connecting the wires strictly according to the wiring diagram and output return elementary diagram.

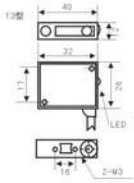
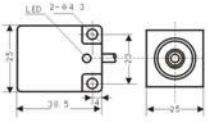
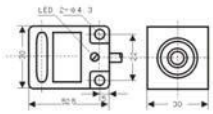
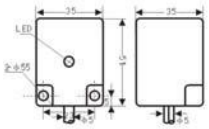
◆If there are any special requirements to the switch like water proof, oil proof, acid proof, base proof, high temperature proof or with any other specifications, the users are required to give clear indication when placing an order. We can produce according to the requirements of the use.

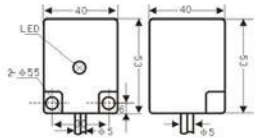
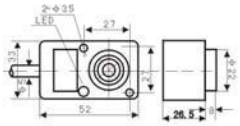
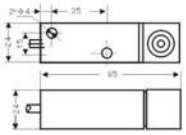
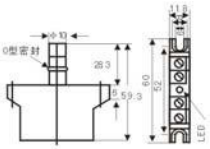
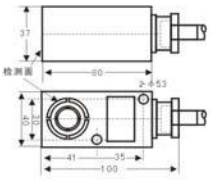
Structural category				Cylinder type			
Outward appearance code				LM6	LM8	LM12	LM14
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance			1mm	1mm	2mm	3mm
	DC 6~36 VDC	NPN	NO	LM6-3001NA	LM8-3001NA	LM12-3002NA	LM14-3003NA
			NC	LM6-3001NB	LM8-3001NB	LM12-3002NB	LM14-3003NB
			NO+NC			LM12-3002NC	LM14-3003NC
		PNP	NO	LM6-3001PA	LM8-3001PA	LM12-3002PA	LM14-3003PA
			NC	LM6-3001PB	LM8-3001PB	LM12-3002PB	LM14-3003PB
			NO+NC			LM12-3002PC	LM14-3003PC
		Two wire system	NO	LM6-3001LA	LM8-3001LA	LM12-3002LA	LM14-3003LA
			NC	LM6-3001LB	LM8-3001LB	LM12-3002LB	LM14-3003LB
	AC 90~250 VAC	Controllable silicon	NO	LM6-2001A	LM8-2001A	LM12-2002A	LM14-2003A
			NC	LM6-2001B	LM8-2001B	LM12-2002B	LM14-2003B
			NO+NC				
		Relay output					
Non-flush	Detection distance			1.5mm	1.5mm	4mm	5mm
	DC 6~36 VDC	NPN	NO	LM6-3002NA	LM8-3002NA	LM12-3004NA	LM14-3005NA
			NC	LM6-3002NB	LM8-3002NB	LM12-3004NB	LM14-3005NB
			NO+NC			LM12-3004NC	LM14-3005NC
		PNP	NO	LM6-3002PA	LM8-3002PA	LM12-3004PA	LM14-3005PA
			NC	LM6-3002PB	LM8-3002PB	LM12-3004PB	LM14-3005PB
			NO+NC			LM12-3004PC	LM14-3005PC
		Two wire system	NO	LM6-3002LA	LM8-3002LA	LM12-3004LA	LM14-3005LA
			NC	LM6-3002LB	LM8-3002LB	LM12-3004LB	LM14-3005LB
	AC 90~250 VAC	Controllable silicon	NO	LM6-2002A	LM8-2002A	LM12-2004A	LM14-2005A
			NC	LM6-2002B	LM8-2002B	LM12-2004B	LM14-2005B
			NO+NC				
		Relay output					
Control output	DC			150mA	150mA	200mA	200mA
	SCR/ Relay					300mA	300mA
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				6×6×1(A3 iron)	8×8×1(A3 iron)	15×15×1(A3 iron)	15×15×1(A3 iron)
Repeated precision				0.01	0.01	0.01	0.02
DC/AC Response frequency				500Hz	500Hz/25Hz	400Hz/25Hz	300Hz/25Hz
Working environment temperature				-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
Insulation resistance				≥30MΩ	≥50MΩ	≥50MΩ	≥50MΩ
Shell material				Stainless steel	Metal	Metal	Metal
Protection grade				IP67	IP67	IP67	IP67
Alternative model at home and abroad					E2E-X1R5□□	E2E-X5M□	LJ14A3-□□

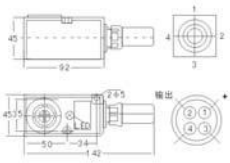
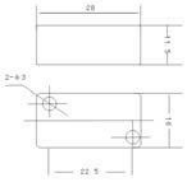
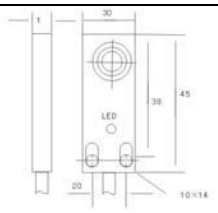
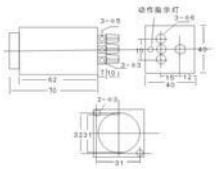
Cylinder type				
LM18	LM22	LM24	LM30	LM20
				
				
5mm	7mm	8mm	10mm	
LM18-3005NA	LM22-3007NA	LM24-3008NA	LM30-3010NA	
LM18-3005NB	LM22-3007NB	LM24-3008NB	LM30-3010NB	
LM18-3005NC	LM22-3007NC	LM24-3008NC	LM30-3010NC	
LM18-3005PA	LM22-3007PA	LM24-3008PA	LM30-3010PA	
LM18-3005PB	LM22-3007PB	LM24-3008PB	LM30-3010PB	
LM18-3005PC	LM22-3007PC	LM24-3008PC	LM30-3010PC	
LM18-3005LA	LM22-3007LA	LM24-3008LA	LM30-3010LA	
LM18-3005LB	LM22-3007LB	LM24-3008LB	LM30-3010LB	
LM18-2005A	LM22-2007A	LM24-2008A	LM30-2010A	
LM18-2005B	LM22-2007B	LM24-2008B	LM30-2010B	
LM18-2005C	LM22-2007C	LM24-2008C	LM30-2010C	
8mm	10mm	10mm	15mm	10mm
LM18-3008NA	LM22-3010NA	LM24-3010NA	LM30-3015NA	LM20-3010NA
LM18-3008NB	LM22-3010NB	LM24-3010NB	LM30-3015NB	LM20-3010NB
LM18-3008NC	LM22-3010NC	LM24-3010NC	LM30-3015NC	LM20-3010NC
LM18-3008PA	LM22-3010PA	LM24-3010PA	LM30-3015PA	LM20-3010PA
LM18-3008PB	LM22-3010PB	LM24-3010PB	LM30-3015PB	LM20-3010PB
LM18-3008PC	LM22-3010PC	LM24-3010PC	LM30-3015PC	LM20-3010PC
LM18-3008LA	LM22-3010LA	LM24-3010LA	LM30-3015LA	LM20-3010LA
LM18-3008LB	LM22-3010LB	LM24-3010LB	LM30-3015LB	LM20-3010LB
LM18-2008A	LM22-2010A	LM24-2010A	LM30-2015A	LM20-2010A
LM18-2008B	LM22-2010B	LM24-2010B	LM30-2015B	LM20-2010B
LM18-2008C	LM22-2010C	LM24-2010C	LM30-2015C	LM20-2010C
200mA	200mA	200mA	200mA	200mA
300mA	300mA	300mA	300mA	300mA
DC<3V AC<10V				
DC：<15mA AC：<10mA				
18×18×1(A3 iron)	22×22×1(A3 iron)	24×24×1(A3 iron)	30×30×1(A3 iron)	20×20×1(A3 iron)
0.02	0.05	0.05	0.05	0.05
200Hz/25Hz	200Hz/25Hz	200Hz/25Hz	200Hz/25Hz	200Hz/25Hz
-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
50MΩ	50MΩ	50MΩ	50MΩ	50MΩ
Metal	Metal	Metal	Metal	Metal
IP67	IP67	IP67	IP67	IP67
E2E-X10M□	LJ22A□-□-□□	LJ24A4-10-□□	E2E-X18M□	

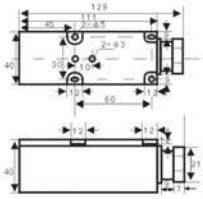
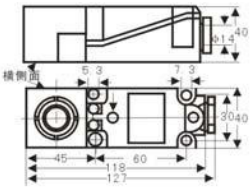
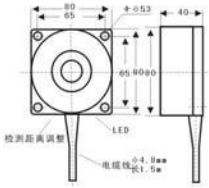
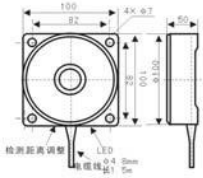
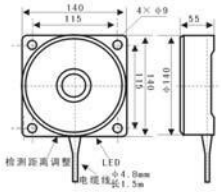
Structural category				Cylinder type			
Outward appearance code				LM34	LM35	LM38	LM40
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance					12mm	
	DC 6~36 VDC	NPN	NO			LM38-3012NA	
			NC			LM38-3012NB	
			NO+NC			LM38-3012NC	
		PNP	NO			LM38-3012PA	
			NC			LM38-3012PB	
			NO+NC			LM38-3012PC	
		Two wire system	NO			LM38-3012LA	
			NC			LM38-3012LB	
	AC 90~250 VAC	Controllable silicon	NO			LM38-2012A	
			NC			LM38-2012B	
			NO+NC			LM38-2012C	
		Relay output					
Non-flush	Detection distance			17mm	17mm	18mm	20mm
	DC 6~36 VDC	NPN	NO	LM34-3017NA	LM35-3017NA	LM38-3018NA	LM40-3020NA
			NC	LM34-3017NB	LM35-3017NB	LM38-3018NB	LM40-3020NB
			NO+NC	LM34-3017NC	LM35-3017NC	LM38-3018NC	LM40-3020NC
		PNP	NO	LM34-3017PA	LM35-3017PA	LM38-3018PA	LM40-3020PA
			NC	LM34-3017PB	LM35-3017PB	LM38-3018PB	LM40-3020PB
			NO+NC	LM34-3017PC	LM35-3017PC	LM38-3018PC	LM40-3020PC
		Two wire system	NO	LM34-3017LA	LM35-3017LA	LM38-3018LA	LM40-3020LA
			NC	LM34-3017LB	LM35-3017LB	LM38-3018LB	LM40-3020LB
	AC 90~250 VAC	Controllable silicon	NO	LM34-2017A	LM35-2017A	LM38-2018A	LM40-3020B
			NC	LM34-2017B	LM35-2017B	LM38-2018B	LM14-2005B
			NO+NC	LM34-2017C	LM35-2017C	LM38-2018C	LM40-3020C
		Relay output					
Control output	DC			200mA	200mA	200mA	200mA
	SCR/ Relay			300mA/1A			
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				34×34×1(A3 iron)	40×40×1(A3 iron)	40×40×1(A3 iron)	45×45×1(A3 iron)
Repeated precision				0.1			
DC/AC Response frequency				100Hz/20Hz			
Working environment temperature				-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
Insulation resistance				50MΩ			
Shell material				ABS Resin			Metal
Protection grade				IP67			
Alternative model at home and abroad						LJ38A4-18-□□	SC-□□

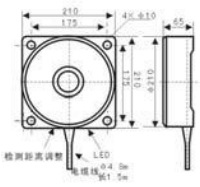
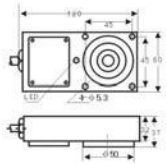
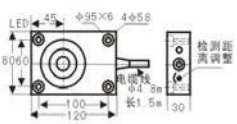
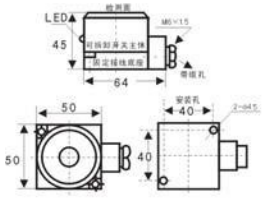
Cylinder type	Angular column type		
LM480	LMF1	LMF2	LMF3
			
			
	5mm	5mm	5mm
	LMF1-3005NA	LMF2-3005NA	LMF3-3005NA
	LMF1-3005NB	LMF2-3005NB	LMF3-3005NB
	LMF1-3005PA	LMF2-3005PA	LMF3-3005PA
	LMF1-3005PB	LMF2-3005PB	LMF3-3005PB
	LMF1-3005LA	LMF2-3005LA	LMF3-3005LA
	LMF1-3005LB	LMF2-3005LB	LMF3-3005LB
25mm			
LM480-3025NA			
LM480-3025NB			
LM480-3025NC			
LM480-3025PA			
LM480-3025PB			
LM480-3025PC			
LM480-3025A	LMF1-2005A	LMF2-2005A	LMF3-2005A
LM480-3025B	LMF1-2005B		LMF3-2005B
LM480-3025C			
200mA			
300mA			
DC<3V AC<10V			
DC：<15mA AC：<10mA			
50×50×1(A3 iron)	20×20×1(A3 iron)		
0.1	0.02		
100Hz/25Hz	400Hz/25Hz		
-25℃ ~+75℃			
50MΩ			
Metal	ABS Resin		
IP67	IP67		
SFE-□□	SN04-N	TL-Q5MC1	PS17-□

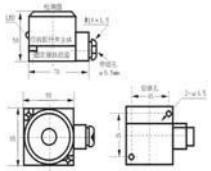
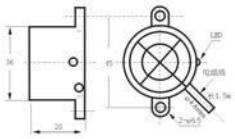
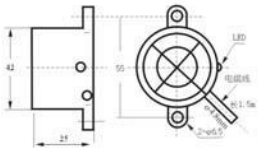
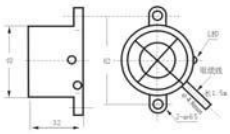
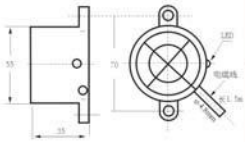
Structural category				Angular column type			
Outward appearance code				LMF5	LMF6	LMF7	LMF8
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance			2mm	8mm	10mm	10mm
	DC 6~36 VDC	NPN	NO	LMF5-3002NA	LMF6-3008NA	LMF7-3010NA	LMF8-3010NA
			NC	LMF5-3002NB	LMF6-3008NB	LMF7-3010NB	LMF8-3010NB
			NO+NC	LMF5-3002NC	LMF6-3008NC	LMF7-3010NC	LMF8-3010NC
		PNP	NO	LMF5-3002PA	LMF6-3008PA	LMF7-3010PA	LMF8-3010PA
			NC	LMF5-3002PB	LMF6-3008PB	LMF7-3010PB	LMF8-3010PB
			NO+NC	LMF5-3002PC	LMF6-3008PC	LMF7-3010PC	LMF8-3010PC
		Two wire system	NO	LMF5-3002LA	LMF6-3008LA	LMF7-3010LA	LMF8-3010LA
			NC	LMF5-3002LB	LMF6-3008LB	LMF7-3010LB	LMF8-3010LB
	AC 90~250 VAC	Controllable silicon	NO		LMF6-2008A	LMF7-2010A	LMF8-2010A
			NC		LMF6-2008B	LMF7-2010B	LMF8-2010B
			NO+NC				
		Relay output					
Non-flush	Detection distance			4mm	10mm	15mm	15mm
	DC 6~36 VDC	NPN	NO	LMF5-3004NA	LMF6-3010NA	LMF7-3015NA	LMF8-3015NA
			NC	LMF5-3004NB	LMF6-3010NB	LMF7-3015NB	LMF8-3015NB
			NO+NC	LMF5-3004NC	LMF6-3010NC	LMF7-3015NC	LMF8-3015NC
		PNP	NO	LMF5-3004PA	LMF6-3010PA	LMF7-3015PA	LMF8-3015PA
			NC	LMF5-3004PB	LMF6-3010PB	LMF7-3015PB	LMF8-3015PB
			NO+NC	LMF5-3004PC	LMF6-3010PC	LMF7-3015PC	LMF8-3015PC
		Two wire system	NO	LMF5-3004LA	LMF6-3010LA	LMF7-3015LA	LMF8-3015LA
			NC	LMF5-3004LB	LMF6-3010LB	LMF7-3015LB	LMF8-3015LB
	AC 90~250 VAC	Controllable silicon	NO		LMF6-2010A	LMF7-2015A	LMF8-2015A
			NC		LMF6-2010B	LMF7-2015B	LMF8-2015B
			NO+NC				
		Relay output					
Control output	DC			200mA			
	SCR/ Relay			300mA	300mA		
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				15×15×1(A3 iron)	30×30×1(A3 iron)	35×35×1(A3 iron)	40×40×1(A3 iron)
Repeated precision					0.05		
DC/AC Response frequency					200Hz/25Hz		
Working environment temperature					-25℃ ~+75℃		
Insulation resistance					50MΩ		
Shell material				ABS Resin			
Protection grade					IP67		
Alternative model at home and abroad					TL-N5ME□□	TL-N10M□	

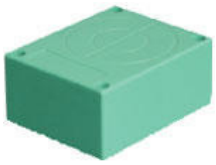
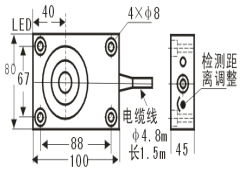
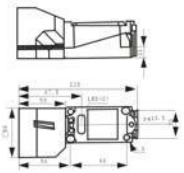
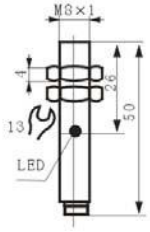
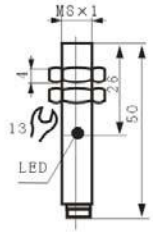
Angular column type				
LMF10	LMF12	LMF13	LMF15	LMF16
				
				
15mm			2mm	
LMF10-3015NA			LMF15-3002NA	
LMF10-3015NB			LMF15-3002NB	
LMF10-3015NC			LMF15-3002NC	
LMF10-3015PA			LMF15-3002PA	
LMF10-3015PB			LMF15-3002PB	
LMF10-3015PC			LMF15-3002PC	
LMF10-3015LA			LMF15-3002LA	
LMF10-3015LB			LMF15-3002LB	
LMF10-2015A			LMF15-2002A	
LMF10-2015B			LMF15-2002B	
LMF10-2015C				
20mm	8mm	8mm	4mm	15mm
LMF10-3020NA	LMF12-3008NA	LMF13-3008NA	LMF15-3004NA	LMF16-3015NA
LMF10-3020NB	LMF12-3008NB	LMF13-3008NB	LMF15-3004NB	LMF16-3015NB
LMF10-3020NC	LMF12-3008NC	LMF13-3008NC	LMF15-3004NC	LMF16-3015NC
LMF10-3020PA	LMF12-3008PA	LMF13-3008PA	LMF15-3004PA	LMF16-3015PA
LMF10-3020PB	LMF12-3008PB	LMF13-3008PB	LMF15-3004PB	LMF16-3015PB
LMF10-3020PC	LMF12-3008PC	LMF13-3008PC	LMF15-3004PC	LMF16-3015PC
LMF10-3020LA	LMF12-3008LA	LMF13-3008LA	LMF15-3004LA	LMF16-3015LA
LMF10-3020LB	LMF12-3008LB	LMF13-3008LB	LMF15-3004LB	LMF16-3015LB
LMF10-2020A	LMF12-2008A	LMF13-2008A	LMF15-2004A	LMF16-2015A
LMF10-2020B	LMF12-2008B	LMF13-2008B	LMF15-2004B	LMF16-2015B
LMF10-2020C	LMF12-2008C	LMF13-2008C		LMF16-2015C
				LMF16-2015JC
300mA	300mA	300mA	200mA	300mA
500mA	500mA	500mA	300mA/1A	500mA/2A
DC<3V AC<10V				
DC：<15mA AC：<10mA				
45×45×1(A3 iron)	25×25×1(A3 iron)	25×25×1(A3 iron)	15×15×F(A3 iron)	45×45×F(A3 iron)
0.05	0.04	0.04	0.02	0.05
100Hz/25Hz	200Hz/25Hz			100Hz/25Hz
-25℃ ~+75℃				
50MΩ	50MΩ			
ABC Resin				
IP67				
TL-N20M□	LJ1A-24	LJD-□□	ST-F-□	LJ2-□□/□□□

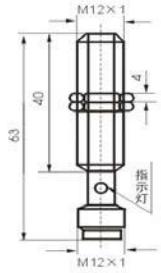
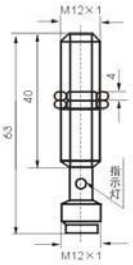
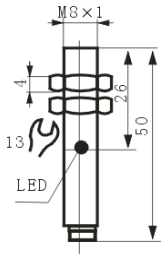
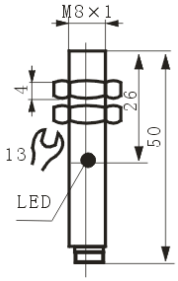
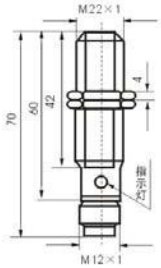
Structural category				Angular column type			
Outward appearance code				LMF17	LMF22	LMF29	LMF35
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance				2mm	5mm	
	DC 6~36 VDC	NPN	NO		LMF22-3002NA	LMF29-3005NA	
			NC		LMF22-3002NB	LMF29-3005NB	
			NO+NC		LMF22-3002NC	LMF29-3005NC	
		PNP	NO		LMF22-3002PA	LMF29-3005PA	
			NC		LMF22-3002PB	LMF29-3005PB	
			NO+NC		LMF22-3002PC	LMF29-3005PC	
		Two wire system	NO		LMF22-3002LA	LMF29-3005LA	
			NC		LMF22-3002LB	LMF29-3005LB	
	AC 90~250 VAC	Controllable silicon	NO		LMF22-3002A	LMF29-3005A	
			NC		LMF22-3002B	LMF29-3005B	
			NO+NC				
		Relay output					
Non-flush	Detection distance			20mm	4mm	8mm	15mm
	DC 6~36 VDC	NPN	NO	LMF17-3020NA	LMF22-3004NA	LMF29-3008NA	LMF35-3015NA
			NC	LMF17-3020NB	LMF22-3004NB	LMF29-3008NB	LMF35-3015NB
			NO+NC	LMF17-3020NC		LMF29-3008NC	
		PNP	NO	LMF17-3020PA	LMF22-3004PA	LMF29-3008PA	LMF35-3015PA
			NC	LMF17-3020PB	LMF22-3004PB	LMF29-3008PB	LMF35-3015PB
			NO+NC	LMF17-3020PC		LMF29-3008PC	
		Two wire system	NO	LMF17-3020LA	LMF22-3004LA	LMF29-3008LA	LMF35-3015LA
			NC	LMF17-3020LB	LMF22-3004LB	LMF29-3008LB	LMF35-3015LB
	AC 90~250 VAC	Controllable silicon	NO	LMF17-2020A			LMF35-2015A
			NC	LMF17-2020B			LMF35-2015C
			NO+NC	LMF17-2020C			
		Relay output		LMF17-2020JC			
Control output	DC			200mA			
	SCR/ Relay			300mA			
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				50×50×1(A3 iron)	8×8×1(A3 iron)	15×15×1(A3 iron)	15×15×1(A3 iron)
Repeated precision				0.05	0.01	0.01	0.02
DC/AC Response frequency				200Hz/25Hz	500Hz/25Hz	400Hz/25Hz	300Hz/25Hz
Working environment temperature				-25℃ ~+70℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
Insulation resistance				≥50MΩ	≥50MΩ	≥50MΩ	≥50MΩ
Shell material				ABS Resin	ABS Resin	ABS Resin	ABS Resin
Protection grade				IP67	IP67	IP67	IP65
Alternative model at home and abroad							JDK-1.2

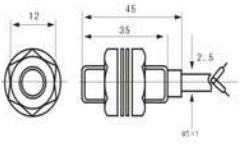
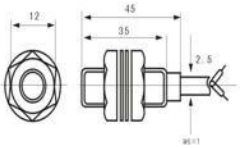
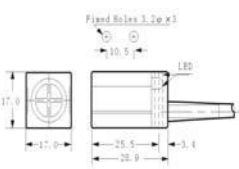
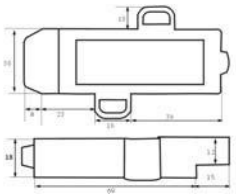
Angular column type		plane installation type		
LMF36	LMF37	LMF38	LMF39	LMF40
				
				
	15mm			
	LMF37-3015NA			
	LMF37-3015NB			
	LMF37-3015NC			
	LMF37-3015PA			
	LMF37-3015PB			
	LMF37-3015PC			
	LMF37-3015LA			
	LMF37-3015LB			
	LMF37-2015A			
	LMF37-2015B			
	LMF37-2015C			
	LMF37-2015JC			
1-20mm	20mm	1-40mm	1-50mm	80mm
LMF36-3020NA	LMF37-3020NA	LMF38-3040NA	LMF39-3050NA	LMF40-3080NA
LMF36-3020NB	LMF37-3020NB	LMF38-3040NB	LMF39-3050NB	LMF40-3080NB
LMF36-3020NC	LMF37-3020NC	LMF38-3040NC	LMF39-3050NC	LMF40-3080NC
LMF36-3020PA	LMF37-3020PA	LMF38-3040PA	LMF39-3050PA	LMF40-3080PA
LMF36-3020PB	LMF37-3020PB	LMF38-3040PB	LMF39-3050PB	LMF40-3080PB
LMF36-3020PC	LMF37-3020PC	LMF38-3040PC	LMF39-3050PC	LMF40-3080PC
LMF36-3020LA	LMF37-3020LA	LMF38-3040LA	LMF39-3050LA	LMF40-3080LA
LMF36-3020LB	LMF37-3020LB	LMF38-3040LB	LMF39-3050LB	LMF40-3080LB
LMF36-2020A	LMF37-2020A	LMF38-2040A	LMF39-2050A	LMF40-2080A
LMF36-2020B	LMF37-2020B	LMF38-2040B	LMF39-2050B	LMF40-2080B
LMF36-2020C	LMF37-2020C	LMF38-2040C	LMF39-2050C	LMF40-2080C
LMF36-2020JC	LMF37-2020JC	LMF38-2040JC	LMF39-2050JC	LMF40-2080JC
200mA	200mA	200mA	200mA	200mA
300mA/2A	300mA/2A	300mA/2A/10A	300mA/2A/10A	300mA/2A/10A
DC<3V AC<10V				
DC：<15mA AC：<10mA				
50×50×1(A3 iron)	50×50×1(A3 iron)	100×100×1(A3 iron)	120×120×1(A3 iron)	160×160×1(A3 iron)
0.05	0.05	0.5	0.5	0.5
200Hz/25Hz	200Hz/25Hz	50Hz/10Hz	50Hz/10Hz	10Hz/5Hz
-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
50MΩ	50MΩ	50MΩ	50MΩ	50MΩ
ABS Resin	ABS Resin	Resin • Fiber Glass reinforced plastic	Resin • Fiber Glass reinforced plastic	Resin • Fiber Glass reinforced plastic
IP67	IP67	IP65	IP65	IP65
	HY-A20□	TCD-2040□	TCA-2050□	TCB-2080□

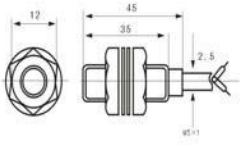
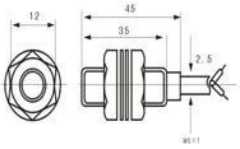
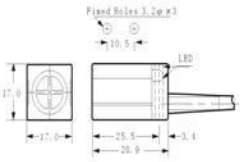
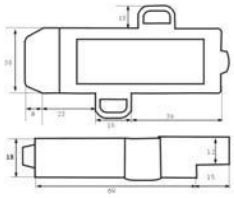
Structural category				plane installation type		Angular column type	
Outward appearance code				LMF41	LMF42	LMF43	LMF50
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance						
	DC 6~36 VDC	NPN	NO				
			NC				
			NO+NC				
		PNP	NO				
			NC				
			NO+NC				
		Two wire system	NO				
			NC				
	AC 90~250 VAC	Controllable silicon	NO				
			NC				
			NO+NC				
		Relay output					
Non-flush	Detection distance			0-120mm	0-25mm	40mm	20mm
	DC 6~36 VDC	NPN	NO	LMF41-30120NA	LMF42-3025NA	LMF43-3040NA	LMF50-3020NA
			NC	LMF41-30120NB	LMF42-3025NB	LMF43-3040NB	LMF50-3020NB
			NO+NC	LMF41-30120NC	LMF42-3025NC	LMF43-3040NC	LMF50-3020NC
		PNP	NO	LMF41-30120PA	LMF42-3025PA	LMF43-3040PA	LMF50-3020PA
			NC	LMF41-30120PB	LMF42-3025PB	LMF43-3040PB	LMF50-3020PB
			NO+NC	LMF41-30120PC	LMF42-3025PC	LMF43-3040PC	LMF50-3020PC
		Two wire system	NO				
			NC				
	AC 90~250 VAC	Controllable silicon	NO	LMF41-20120A	LMF42-2025A	LMF43-2040A	LMF50-2020A
			NC	LMF41-20120B	LMF42-2025B	LMF43-2040B	LMF50-2020B
			NO+NC	LMF41-20120C	LMF42-2025C	LMF43-2040C	LMF50-2020C
		Relay output		LMF41-20120JC	LMF42-2025JC	LMF43-2040JC	LMF50-2020JC
Control output	DC			200mA	200mA	200mA	200mA
	SCR/ Relay			300mA/2A/10A	300mA/2A	300mA/2A	300mA/2A
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				250×250×1(A3 iron)	80×80×1(A3 iron)	100×100×1(A3 iron)	60×60×1(A3 iron)
Repeated precision				0.5	0.05	0.05	0.05
DC/AC Response frequency				10Hz/5Hz	50Hz/10Hz	30Hz/10Hz	200Hz/25Hz
Working environment temperature				-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
Insulation resistance				50MΩ	50MΩ	50MΩ	50MΩ
Shell material				Resin • Fiber Glass reinforced plastic	ABS Resin	ABS Resin	ABS Resin
Protection grade				IP65	IP65	IP65	IP65
Alternative model at home and abroad				TCC-2120□			HD-2020□

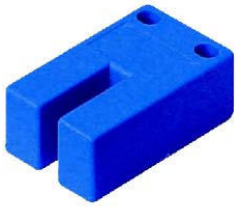
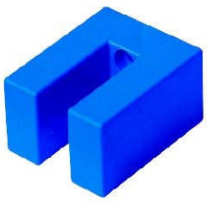
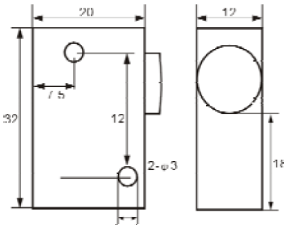
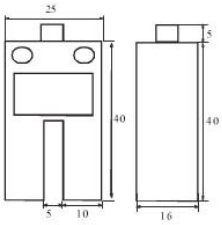
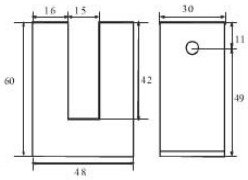
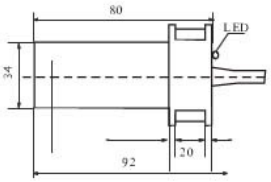
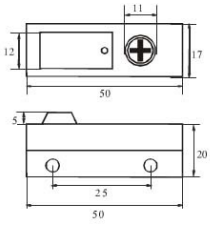
plane installation type				
LMF55	LM36	LM42	LM48	LM55
				
				
25mm	15mm	20mm	20mm	25mm
LMF55-3025NA	LM36-3015NA	LM42-3020NA	LM48-3020NA	LM55-3025NA
LMF55-3025NB	LM36-3015NB	LM42-3020NB	LM48-3020NB	LM55-3025NB
LMF55-3025NC	LM36-3015NC	LM42-3020NC	LM48-3020NC	LM55-3025NC
LMF55-3025PA	LM36-3015PA	LM42-3020PA	LM48-3020PA	LM55-3025PA
LMF55-3025PB	LM36-3015PB	LM42-3020PB	LM48-3020PB	LM55-3025PB
LMF55-3025PC	LM36-3015PC	LM42-3020PC	LM48-3020PC	LM55-3025PC
	LM36-3015LA	LM42-3020LA	LM48-3020LA	LM55-3025LA
	LM36-3015LB	LM42-3020LB	LM48-3020LB	LM55-3025LB
LMF55-2025A	LM36-3015A	LM42-2020A	LM48-2020A	LM55-2025A
LMF55-2025B	LM36-3015B	LM42-2020B	LM48-2020B	LM55-2025B
LMF55-2025C			LM48-2020C	LM55-2025C
LMF55-2025JC				
300mA	300mA	300mA	300mA	300mA
500mA/2A	300mA	500mA/2A	500mA	500mA
DC<3V AC<10V				
DC：<15mA AC：<10mA				
70×70×1(A3 iron)	45×45×1(A3 iron)	25×25×1(A3 iron)	60×60×1(A3 iron)	55×55×1(A3 iron)
0.2	0.05	0.2	0.2	0.2
200Hz/10Hz	200Hz/10Hz	200Hz/25Hz	200Hz/10Hz	200Hz/10Hz
-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
50MΩ	50MΩ	50MΩ	50MΩ	50MΩ
ABS Resin	ABS Resin	ABS Resin	ABS Resin	ABS Resin
IP67	IP67	IP67	IP67	IP67
			SD-□□	SE-□□

Structural category				Plane installation type	Angular column type	Connector type	
Outward appearance code				LMF45	LM370	LM8-□□T	LM8-□□T3
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance					1mm	1mm
	DC 6~36 VDC	NPN	NO			LM8-3001NAT	LM8-3001NAT3
			NC			LM8-3001NBT	LM8-3001NBT3
			NO+NC				
		PNP	NO			LM8-3001PAT	LM8-3001PAT3
			NC			LM8-3001PBT	LM8-3001PBT3
			NO+NC				
		Two wire system	NO			LM8-3001LAT	LM8-3001LAT3
			NC				
	AC 90~250 VAC	Controllable silicon	NO				
			NC				
			NO+NC				
		Relay output					
Non-flush	Detection distance			0-50mm	40mm	2mm	2mm
	DC 6~36 VDC	NPN	NO	LMF45-3050NA	LMF370-3040NA	LM8-3002NAT	LM8-3002NAT3
			NC	LMF45-3050NB	LMF370-3040NB	LM8-3002NBT	LM8-3002NBT3
			NO+NC	LMF45-3050NC	LMF370-3040NC		
		PNP	NO	LMF45-3050PA	LMF370-3040PA	LM8-3002PAT	LM8-3002PAT3
			NC	LMF45-3050PB	LMF370-3040PB	LM8-3002PBT	LM8-3002PBT3
			NO+NC	LMF45-3050PC	LMF370-3040PC		
		Two wire system	NO	LMF45-3050LA	LMF370-3040LA	LM8-3002LAT	LM8-3002LAT3
			NC	LMF45-3050LB	LMF370-3040LB		
	AC 90~250 VAC	Controllable silicon	NO	LMF45-2050A	LMF370-2040A	LM8-2002AT	LM8-2002AT3
			NC	LMF45-2050B	LMF370-2040B	LM8-2002BT	LM8-2002BT3
			NO+NC				
		Relay output					
Control output	DC			200mA	200mA	150mA	150mA
	SCR/ Relay			500mA	500mA		
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				80×80×1(A3 iron)	55×55×1(A3 iron)	8×8×1(A3 iron)	8×8×1(A3 iron)
Repeated precision				0.05	0.05	0.01	0.01
DC/AC Response frequency				200Hz/5Hz	200Hz/10Hz	500Hz/10Hz	500Hz/25Hz
Working environment temperature				-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃	-25℃ ~+75℃
Insulation resistance				≥30MΩ	≥50MΩ	≥50MΩ	≥50MΩ
Shell material				Plastic		Metal	Metal
Protection grade				IP67		IP67	IP67
Alternative model at home and abroad						E2E-X1R5-M1	E2E-X2ME1-M1

Connector type				
LM12-□T	LM12-□T3	LM18-□T	LM18-□T3	LM22-□T
				
				
2mm	2mm	5mm	5mm	7mm
LM12-3002NAT	LM12-3002NAT3	LM18-3005NAT	LM18-3005NAT3	LM22-3007NAT
LM12-3002NBT	LM12-3002NBT3	LM18-3005NBT	LM18-3005NBT3	LM22-3007NBT
LM12-3002NCT	LM12-3002NCT3	LM18-3005NCT	LM18-3005NCT3	LM22-3007NCT
LM12-3002PAT	LM12-3002PAT3	LM18-3005PAT	LM18-3005PAT3	LM22-3007PAT
LM12-3002PBT	LM12-3002PBT3	LM18-3005PBT	LM18-3005PBT3	LM22-3007PBT
LM12-3002PCT	LM12-3002PCT3	LM18-3005PCT	LM18-3005PCT3	LM22-3007PCT
LM12-3002LAT	LM12-3002LAT3	LM18-3005LAT	LM18-3005LAT3	LM22-3007LAT
LM12-3002LBT	LM12-3002LBT3	LM18-3005LBT	LM18-3005LBT3	LM22-3007LBT
LM12-2002AT	LM12-2002AT3	LM18-2005AT	LM18-2005AT3	LM22-2007AT
LM12-2002BT	LM12-2002BT3	LM18-2005BT	LM18-2005BT3	LM22-2007BT
4mm	5mm	15mm	20mm	4mm
LM12-3004NAT	LM12-3004NAT3	LM18-3008NAT	LM18-3008NAT3	LM22-3010NAT
LM12-3004NBT	LM12-3004NBT3	LM18-3008NBT	LM18-3008NBT3	LM22-3010NBT
LM12-3004NCT	LM12-3004NCT3	LM18-3008NCT	LM18-3008NCT3	LM22-3010NCT
LM12-3004PAT	LM12-3004PAT3	LM18-3008PAT	LM18-3008PAT3	LM22-3010PAT
LM12-3004PBT	LM12-3004PBT3	LM18-3008PBT	LM18-3008PBT3	LM22-3010PBT
LM12-3004PCT	LM12-3004PCT3	LM18-3008PCT	LM18-3008PCT3	LM22-3010PCT
LM12-3004LAT	LM12-3004LAT3	LM18-3008LAT	LM18-3008LAT3	LM22-3010LAT
LM12-3004LBT	LM12-3004LBT3	LM18-3008LBT	LM18-3008LBT3	LM22-3010LBT
LM12-2004AT	LM12-2004AT3	LM18-2008AT	LM18-2008AT3	LM22-2010AT
LM12-2004BT	LM12-2004BT3	LM18-2008BT	LM18-2008BT3	LM22-2010BT
200mA	200mA	200mA	200mA	200mA
		300mA	300mA	300mA
DC<3V AC<10V				
DC：<15mA AC：<10mA				
12×12×1(A3 iron)	12×12×1(A3 iron)	18×18×1(A3 irom)	18×18×1(A3 iron)	25×25×1(A3 iron)
0.01	0.01	0.02	0.02	0.036
400Hz/10Hz	400Hz/10Hz	200Hz/10Hz	200Hz/10Hz	200Hz/5Hz
-25℃~+70℃	-25℃ ~+70℃	-25℃ ~+65℃	-25℃ ~+65℃	-25℃ ~+65℃
50MΩ	50MΩ	50MΩ	50MΩ	
Metal				
IP67	IP67	IP67	IP67	IP67
E2E-X2E1-M1	E2E-X5ME1-M1	E2E-X5E1-M1	E2E-X10ME1-M1	

Structural category				Connector type			
Outward appearance code				LM22-□T3	LM30-□T	LM30-□T3	LMF16-□T
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance			0.7mm	0.7mm	5mm	5mm
	DC 6-36 VDC	NPN	NO	LM22-3007NAT3	LM30-3010NAT	LM30-3005NAT3	
			NC	LM22-3007NBT3	LM30-3010NBT	LM30-3005NBT3	
			NO+NC	LM22-3007NCT3	LM30-3010NCT	LM30-3005NCT3	
		PNP	NO	LM22-3007PAT3	LM30-3010PAT	LM30-3005PAT3	
			NC	LM22-3007PBT3	LM30-3010PBT	LM30-3005PBT3	
			NO+NC	LM22-3007PCT3	LM30-3010PCT	LM30-3005PCT3	
		Two wire system	NO	LM22-3007LAT3	LM30-3010LAT	LM30-3005LAT3	
			NC	LM22-3007LBT3	LM30-3010LBT	LM30-3005LBT3	
	AC 90~250 VAC	Control-able silicon	NO	LM22-2007AT3	LM30-3010AT	LM30-3005AT3	
			NC	LM22-2007BT3	LM30-3010BT	LM30-3005BT3	
			NO+NC				
		Relay output					
Non-flush	Detection distance						
	DC 6-36 VDC	NPN	NO	LM30-3010NAT3	LM30-3015NAT	LM30-3015NAT3	LMF16-3015NAT
			NC	LM30-3010NBT3	LM30-3015NBT	LM30-3015NBT3	LMF16-3015NBT
			NO+NC	LM30-3010NCT3	LM30-3015NCT	LM30-3015NCT3	LMF16-3015NCT
		PNP	NO	LM30-3010PAT3	LM30-3015PAT	LM30-3015PAT3	LMF16-3015PAT
			NC	LM30-3010PBT3	LM30-3015PBT	LM30-3015PBT3	LMF16-3015PBT
			NO+NC	LM30-3010PCT3	LM30-3015PCT	LM30-3015PCT3	LMF16-3015PCT
		Two wire system	NO	LM30-3010LAT3	LM30-3015LAT	LM30-3015LAT3	LMF16-3015LAT
			NC	LM30-3010LBT3	LM30-3015LBT	LM30-3015LBT3	LMF16-3015LBT
	AC 90~250 VAC	Control-able silicon	NO	LM30-2010AT3	LM30-2015AT	LM30-2015AT3	LMF16-2015AT
			NC	LM30-2010BT3	LM30-2015BT	LM30-2015BT3	LMF16-2015BT
			NO+NC				
		Relay output					
Control output		DC		200mA	200mA	200mA	200mA
		SCR/ Relay		300mA	300mA	300mA	300mA
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				25×25×1(A3 iron)	30×30×1(A3 iron)	30×30×1(A3 iron)	45×45×1(A3 iron)
Repeated precision				0.05	0.05	0.05	0.05
DC/AC Response frequency				200Hz/10 Hz	200Hz/10 Hz	200Hz/10 Hz	200Hz/10 Hz
Working environment temperature				-25℃~+65℃	-25℃~+65℃	-25℃~+65℃	-25℃~+65℃
Insulation resistance				50MΩ	50MΩ	50MΩ	50MΩ
Shell material				Metal	Metal	Metal	ABS Resin
Protection grade				IP67	IP67	IP67	IP67
Alternative model at home and abroad					EZE-X18ME1-M1	EZE-X18ME1-M1	LJ2-15/211

Structural category				Cylinder type		Angular column type	
Outward appearance code				LM05	LM06	LMF4	LMF11
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance			0.7mm	0.7mm	5mm	5mm
	DC 6-36 VDC	NPN	NO	LM05-3001NA	LM06-3001NA	LMF4-3005NA	LMF11-3005NA
			NC			LMF4-3005NB	LMF11-3005NB
			NO+NC				LMF1-3005NC
		PNP	NO	LM05-3001PA	LM06-3001PA	LMF4-3005PA	LMF1-3005PA
			NC			LMF4-3005PB	LMF11-3005PB
			NO+NC				LMF11-3005PC
		Two wire system	NO			LMF4-3005LA	LMF1-3005LA
			NC			LMF4-3005LB	LMF11-3005LB
	AC 90~250 VAC	Control-able silicon	NO				
			NC				
			NO+NC				
		Relay output					
Non-flush	Detection distance						
	DC 6-36 VDC	NPN	NO				
			NC				
			NO+NC				
		PNP	NO				
			NC				
			NO+NC				
		Two wire system	NO				
			NC				
	AC 90~250 VAC	Control-able silicon	NO				
			NC				
			NO+NC				
		Relay output					
Control output		DC		100mA	100mA	200mA	
		SCR/ Relay					
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				8×8×1(A3 iron)	8×8×1(A3 iron)	20×20×1(A3 iron)	20×20×1(A3 iron)
Repeated precision				0.01	0.01	0.03	0.05
DC/AC Response frequency				500Hz	500Hz	300Hz	500Hz
Working environment temperature				-25℃~+70℃	-25℃ ~+70℃	-25℃ ~+70℃	-25℃ ~+70℃
Insulation resistance				50MΩ	50MΩ	50MΩ	50MΩ
Shell material				Metal		ABS Resin	
Protection grade				IP67	IP67	IP67	IP67
Alternative model at home and abroad						PS05-N、PS05-P	PL05-N、PL05-P

Angular column type				
LMF21	LMF14	LMF27	LMF340	LMF30
				
				
4mm				
LMF21				
4mm	5mm	15mm	20mm	4mm
LMF21-3004NA	LMF14-3005NA	LMF27-3015NA	LMF340-3020NA	LMF30-3004NA
LMF21-3004NB	LMF14-3005NB	LMF27-3015NB	LMF340-3020NB	LMF30-3004NB
	LMF14-3005NC	LMF27-3015NC	LMF340-3020NC	LMF30-3004NC
LMF21-3004PA	LMF14-3005PA	LMF27-3015PA	LMF340-3020PA	LMF30-3004PA
LMF21-3004PB	LMF14-3005PB	LMF27-3015PB	LMF340-3020PB	LMF30-3004PB
	LMF14-3005PC	LMF27-3015PC	LMF340-3020PC	LMF30-3004PC
LMF21-3004LC	LMF14-3005LA	LMF27-3015LA	LMF340-3020LA	LMF30-3004LA
	LMF14-3005LB	LMF27-3015LB	LMF340-3020LB	
	LMF14-2005A	LMF27-2015A	LMF340-2020A	LMF30-2004A
	LMF14-2005B	LMF27-2015B	LMF340-2020B	LMF30-2004B
200mA	200mA	200mA	200mA	200mA
	300mA	300mA	300mA	300mA
DC<3V AC<10V				
DC：<15mA AC：<10mA				
12×12×1(A3 iron)	18×18×1(A3 iron)	30×30×1(A3 iron)	35×35×1(A3 iron)	15×15×1(A3 iron)
0.01	0.05	0.05	0.05	0.01
500Hz/5Hz	500Hz/10Hz	300Hz/10Hz	300Hz/10Hz	500Hz/5Hz
-25℃~+70℃	-25℃ ~+70℃	-25℃ ~+70℃	-25℃ ~+70℃	
50MΩ	50MΩ	50MΩ	50MΩ	
ABC Plastic				
IP67	IP67	IP67	IP67	IP67

Structural category				Angular column type			
Outward appearance code				LMF380	LMF23	LMF24	LMF25
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance					4mm	
	DC 6-36 VDC	NPN	NO			LMF21-3004NA	
			NC			LMF21-3004NB	
			NO+NC				
		PNP	NO			LMF21-3004PA	
			NC			LMF21-3004PB	
			NO+NC				
		Two wire system	NO			LMF21-3004LA	
			NC				
	AC 90~250 VAC	Control-able silicon	NO				
			NC				
			NO+NC				
		Relay output					
Non-flush	Detection distance			40mm	5mm	5mm	5mm
	DC 6-36 VDC	NPN	NO	LMF380-3040NA	LMF23-3005NA	LMF24-3005NA	LMF25-3005NA
			NC	LMF380-3040NB	LMF23-3005NB	LMF24-3005NB	LMF25-3005NB
			NO+NC	LMF380-3040NC			LMF25-3005NC
		PNP	NO	LMF380-3040PA	LMF23-3005PA	LMF24-3005PA	LMF25-3005PA
			NC	LMF380-3040PB	LMF23-3005PB	LMF24-3005PB	LMF25-3005PB
			NO+NC	LMF380-3040PC			LMF25-3005PC
		Two wire system	NO	LMF380-3040LA	LMF23-3005LA		LMF25-3005LA
			NC	LMF380-3040LB			LMF25-3005LB
	AC 90~250 VAC	Control-able silicon	NO	LMF380-2040A			LMF25-2005A
			NC	LMF380-2040B			LMF25-2005B
			NO+NC				
		Relay output					
Control output		DC		200mA	200mA	200mA	200mA
		SCR/ Relay		500mA			500mA
output voltage drop DC/AC				DC<3V AC<10V			
DC/AC Consumption current				DC：<15mA AC：<10mA			
Standard detected object				50×50×1(A3 iron)	20×20×1(A3 iron)	12×12×1(A3 iron)	18×18×1(A3 iron)
Repeated precision				0.05	0.05	0.05	0.05
DC/AC Response frequency				500Hz/10Hz	500Hz	500Hz/5Hz	500Hz/10Hz
Working environment temperature				-25℃~+70℃	-25℃ ~+70℃	-25℃ ~+70℃	-25℃ ~+70℃
Insulation resistance				50MΩ	50MΩ	50MΩ	50MΩ
Shell material				ABC Plastic			
Protection grade				IP67	IP67	IP67	IP67
Alternative model at home and abroad				NJ40P-FP-A2-P1			