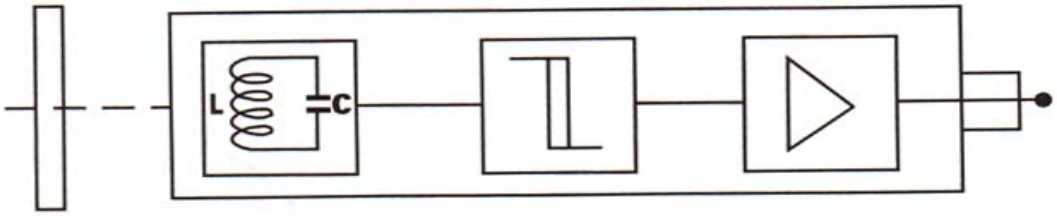
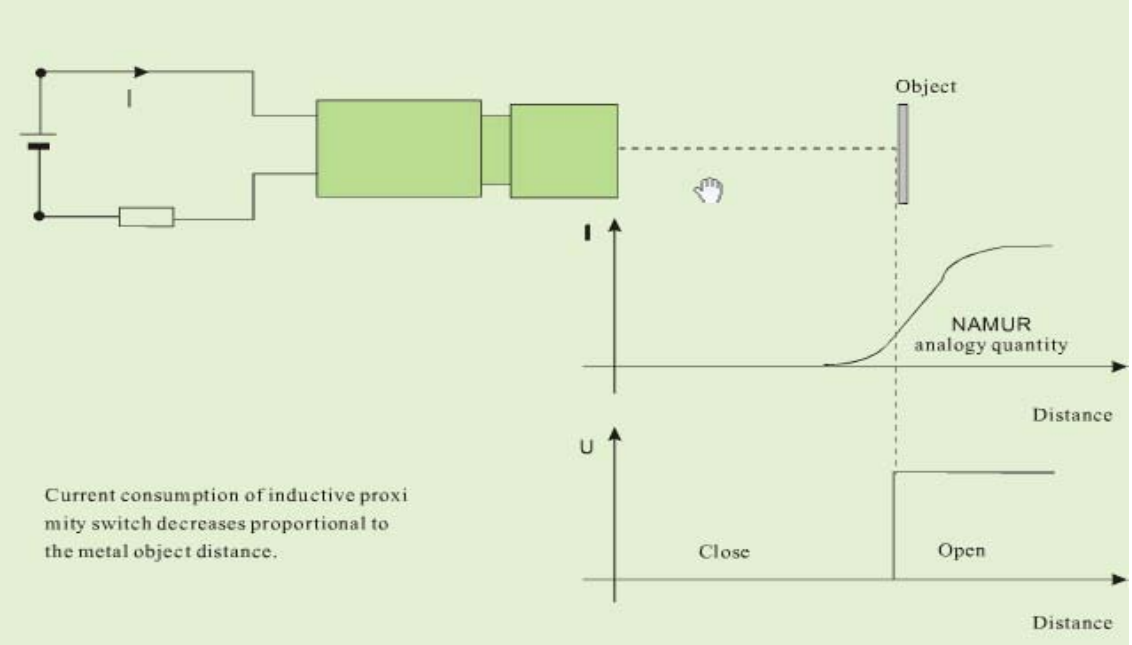
Kane Electric Co.,Ltd
Yueqing Merlyn Imp.& Exp. Co.,Ltd
Add: No.30 Liuyang Road,Liushi Town,Wenzhou City,Zhejiang,325604,China
Tel/Fax:+86-577-61786255
Skype: tomxxy
WhatsApp: +86-18072097178
Wechat: +86-18072097178
E-mail: tonyxu@chnssr.com
www.chnssr.com

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

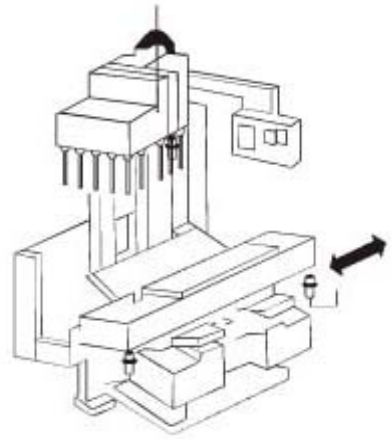
◆Dust proof, vibration proof, water proof and oil proof

◆With short-circuit protection and inverted connecting protection

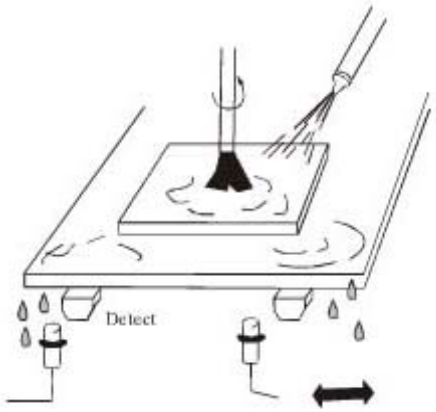
◆Long service life

■ Application illustration of proximity switch

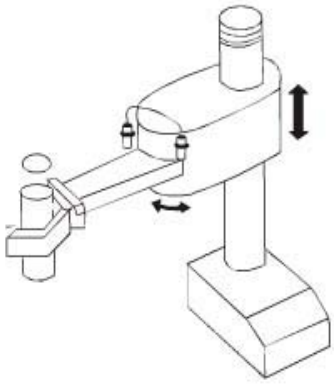
◆ Various location detection of machinery process center



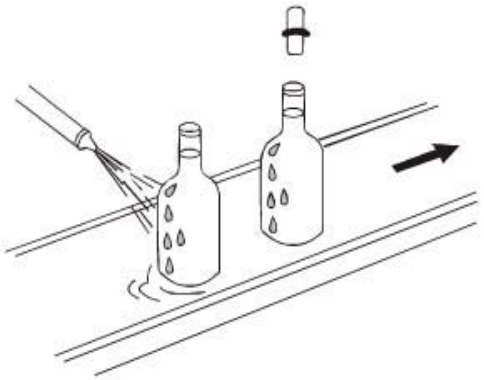
◆ Stopper detection of grinding machine



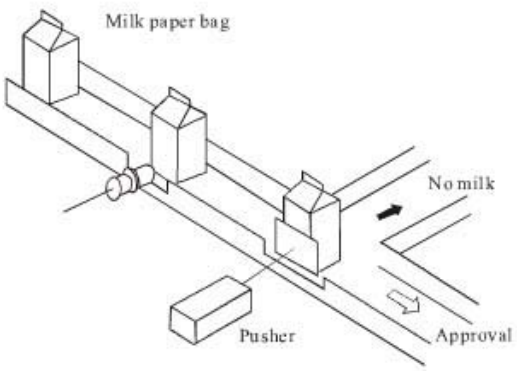
◆ Arm location detection of robot



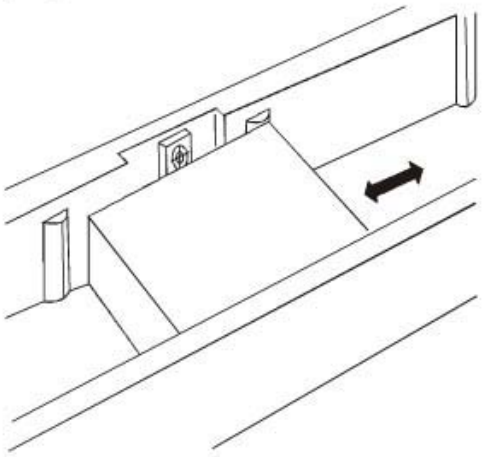
◆ Bottle lid detection



◆ Inspection of the existing of milk inside the paper package



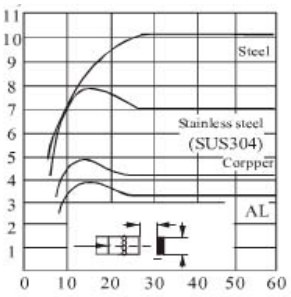
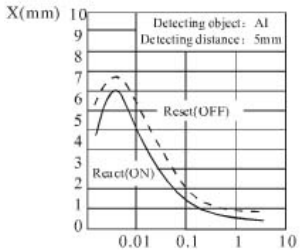
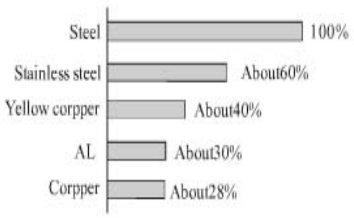
◆ Spacing detection



■ 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

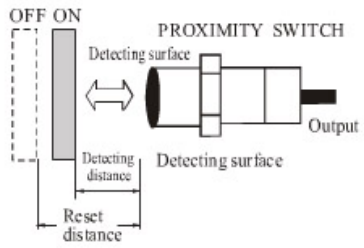
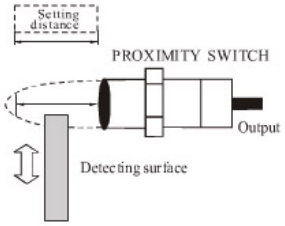
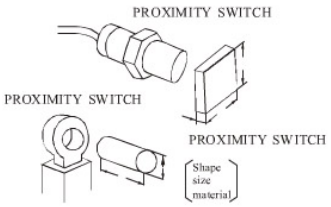
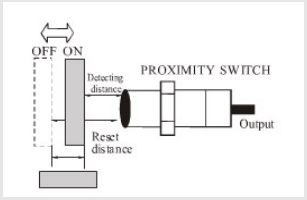
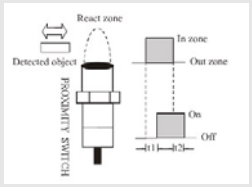
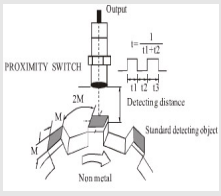
<table>
<tr><th>Item</th><th>Explanation</th><th>Features</th><th rowspan="4">◆ About detected object
When the material of detected object is non magnetic metal, the distance of action should descend. But when the foil material is approximately thicker than a.01mm, the detection distance will be the 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</th></tr>
<tr><td>The size of detected object and detection distance</td><td>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)
 
</td><td>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</td></tr>
<tr><td>The thickness of detected object and detection distance</td><td>Detect at detection distance Xmm(front detector)when change the thickness of the assigned standard detected object 1mm.
 
</td><td>For more than 1mm thick magnetic metal like iron on the main, the detection distance will not change.</td></tr>
<tr><td>The effects resulted from the Thickness of detected object and cladding material</td><td>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.
 
</td><td>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.</td></tr>
</table>

■ Features of proximity switch

◆ Main features

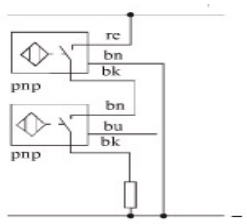
Take high frequency oscillation type proximity sensor(front detector)as representative example to briefly explain general features of proximity switch

■ Explanation of technical terms

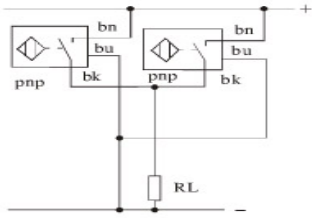
Detection distance  Move the detected object according to assigned method, the distance from the reference position (reference plane)to the detecting action(resetting)	Setting distance  Including the effects like temperature and voltage, without error action the distance passed through from the practical 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

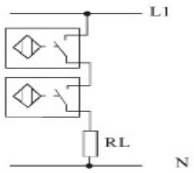
◆Series connection of three-wire DC and three-wire DC sensor



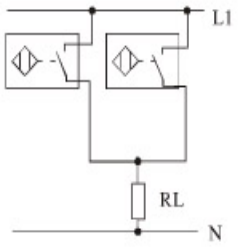
◆Parallel connection of three-wire DC and three-wire DC sensor



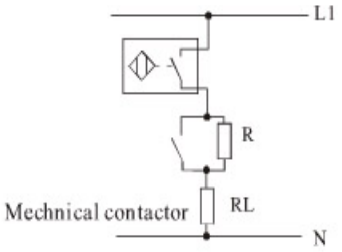
◆ Series connection of two-wire AC sensor



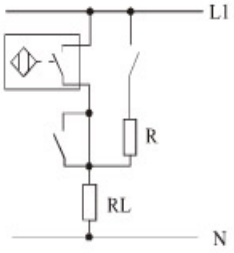
◆Parallel connection of two-wire AC sensor



◆ Series connection of machinery switch and AC sensor



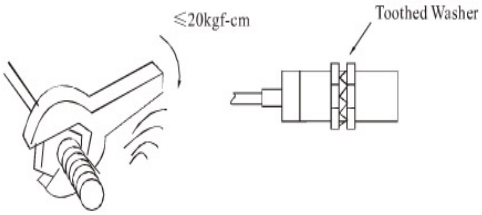
◆ Parallel connection of machinery switch and AC sensor



■ Correct use, installation and cautions

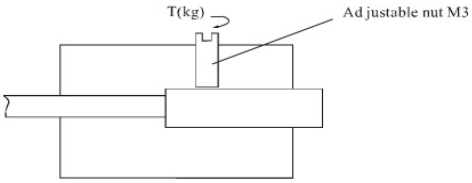
◆Mounting screw switch

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



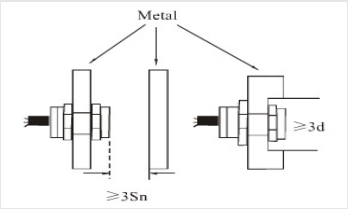
◆ Mounting non screw type pillar switch

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



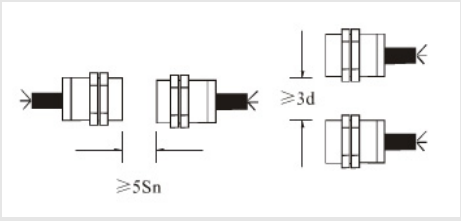
◆ Protection against the interference of non detected object

◆ 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



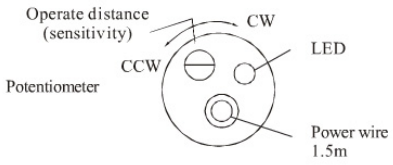
◆ Protection against mutual interference between switches

◆ 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



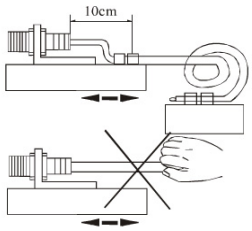
◆ Adjustable switch action distance(sensitivity)

◆ 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

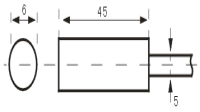
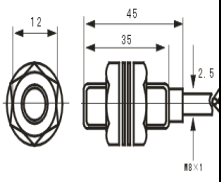
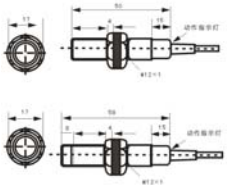
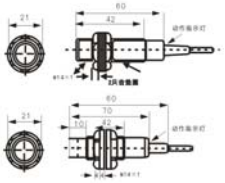
◆DC switch should adopt insulation transformer and ensure stable voltage mains corrugation.

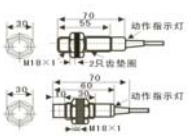
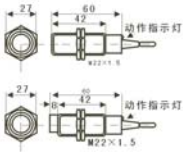
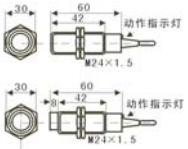
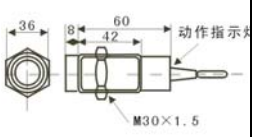
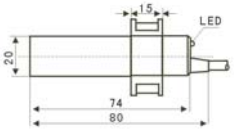
◆IF any electric power line or dynamic line passes through the surrounding of switch lead-wire, in order to prevent the switch from damage or error action, cover the metal bushing on the switch lead-wire and ground it to the earth

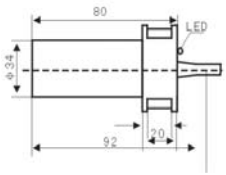
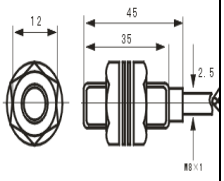
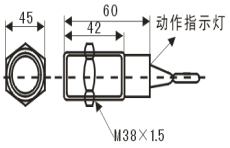
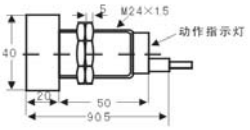
◆Set the switch use distance within the rated distance to avoid the effects from temperature and voltage

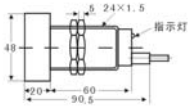
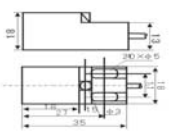
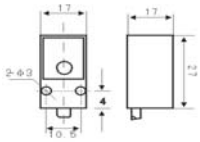
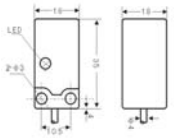
◆Wiring while power-on is strictly prohibited. Connecting the wires strictly according to the wiring diagram and output return elementary diagram.

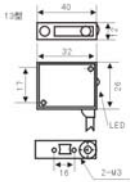
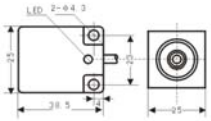
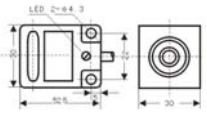
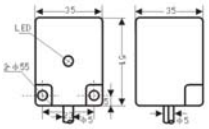
◆If there are any special requirements to the switch like water proof, oil proof, acid proof, base proof, high temperature proof or with any other specifications, the users are required to give clear indication when placing an order. We can produce according to the requirements of the use.

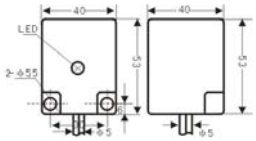
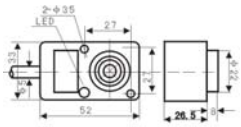
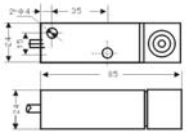
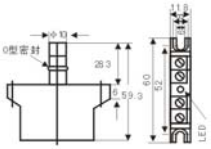
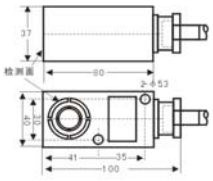
Structural category				Cylinder type			
Outward appearance code				LM6	LM8	LM12	LM14
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance			1mm	1mm	2mm	3mm
	DC 6~36 VDC	NPN	NO	LM6-3001NA	LM8-3001NA	LM12-3002NA	LM14-3003NA
			NC	LM6-3001NB	LM8-3001NB	LM12-3002NB	LM14-3003NB
			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-□□

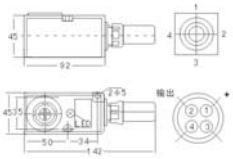
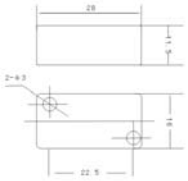
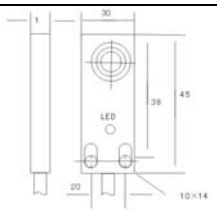
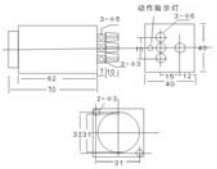
Cylinder type				
LM18	LM22	LM24	LM30	LM20
				
				
5mm	7mm	8mm	10mm	
LM18-3005NA	LM22-3007NA	LM24-3008NA	LM30-3010NA	
LM18-3005NB	LM22-3007NB	LM24-3008NB	LM30-3010NB	
LM18-3005NC	LM22-3007NC	LM24-3008NC	LM30-3010NC	
LM18-3005PA	LM22-3007PA	LM24-3008PA	LM30-3010PA	
LM18-3005PB	LM22-3007PB	LM24-3008PB	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□	

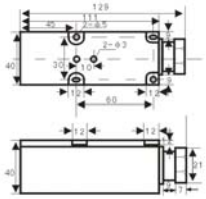
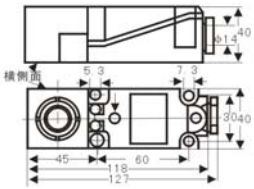
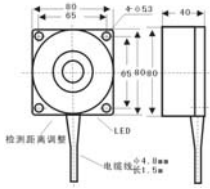
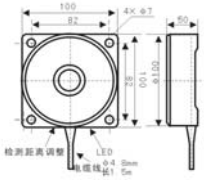
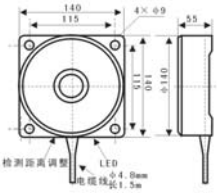
Structural category				Cylinder type			
Outward appearance code				LM34	LM35	LM38	LM40
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance					12mm	
	DC 6~36 VDC	NPN	NO			LM38-3012NA	
			NC			LM38-3012NB	
			NO+NC			LM38-3012NC	
		PNP	NO			LM38-3012PA	
			NC			LM38-3012PB	
			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-□□

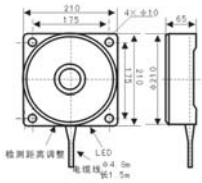
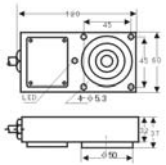
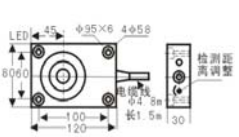
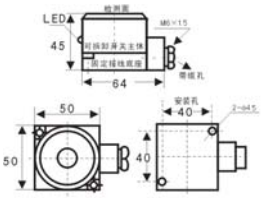
Cylinder type	Angular column type		
LM480	LMF1	LMF2	LMF3
			
			
	5mm	5mm	5mm
	LMF1-3005NA	LMF2-3005NA	LMF3-3005NA
	LMF1-3005NB	LMF2-3005NB	LMF3-3005NB
	LMF1-3005PA	LMF2-3005PA	LMF3-3005PA
	LMF1-3005PB	LMF2-3005PB	LMF3-3005PB
	LMF1-3005LA	LMF2-3005LA	LMF3-3005LA
	LMF1-3005LB	LMF2-3005LB	LMF3-3005LB
25mm			
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-□

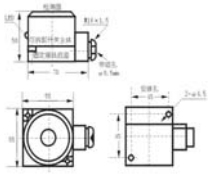
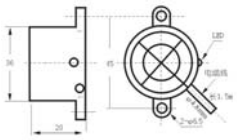
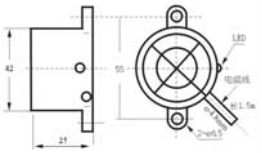
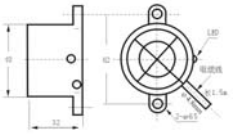
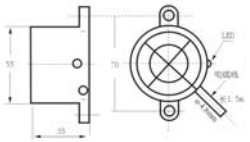
Structural category				Angular column type			
Outward appearance code				LMF5	LMF6	LMF7	LMF8
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance			2mm	8mm	10mm	10mm
	DC 6~36 VDC	NPN	NO	LMF5-3002NA	LMF6-3008NA	LMF7-3010NA	LMF8-3010NA
			NC	LMF5-3002NB	LMF6-3008NB	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□	

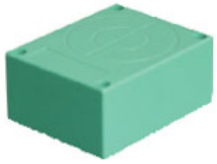
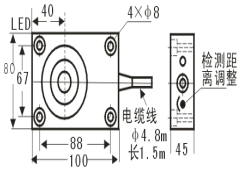
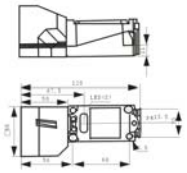
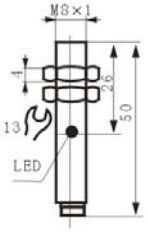
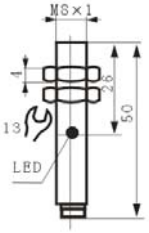
Angular column type				
LMF10	LMF12	LMF13	LMF15	LMF16
				
				
15mm			2mm	
LMF10-3015NA			LMF15-3002NA	
LMF10-3015NB			LMF15-3002NB	
LMF10-3015NC			LMF15-3002NC	
LMF10-3015PA			LMF15-3002PA	
LMF10-3015PB			LMF15-3002PB	
LMF10-3015PC			LMF15-3002PC	
LMF10-3015LA			LMF15-3002LA	
LMF10-3015LB			LMF15-3002LB	
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-□□/□□□

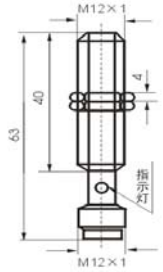
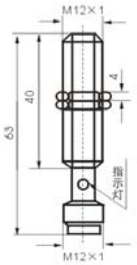
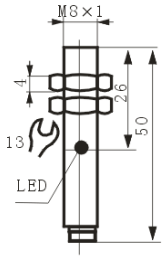
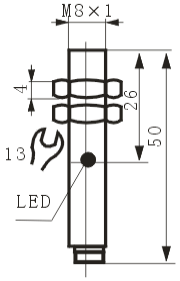
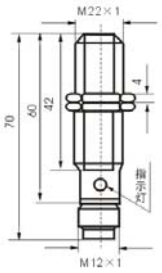
Structural category				Angular column type			
Outward appearance code				LMF17	LMF22	LMF29	LMF35
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance				2mm	5mm	
	DC 6~36 VDC	NPN	NO		LMF22-3002NA	LMF29-3005NA	
			NC		LMF22-3002NB	LMF29-3005NB	
			NO+NC		LMF22-3002NC	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

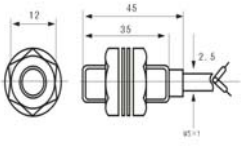
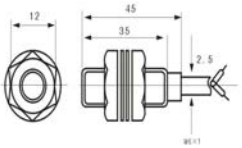
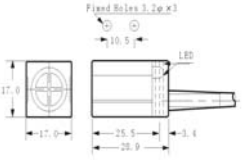
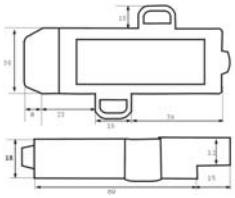
Angular column type		plane installation type		
LMF36	LMF37	LMF38	LMF39	LMF40
				
				
	15mm			
	LMF37-3015NA			
	LMF37-3015NB			
	LMF37-3015NC			
	LMF37-3015PA			
	LMF37-3015PB			
	LMF37-3015PC			
	LMF37-3015LA			
	LMF37-3015LB			
	LMF37-2015A			
	LMF37-2015B			
	LMF37-2015C			
	LMF37-2015JC			
1-20mm	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□

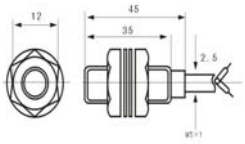
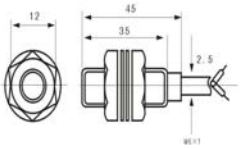
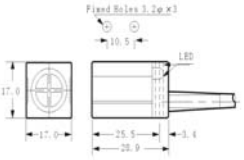
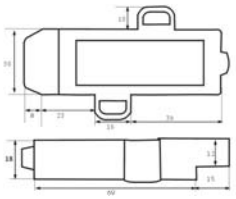
Structural category				plane installation type		Angular column type	
Outward appearance code				LMF41	LMF42	LMF43	LMF50
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance						
	DC 6~36 VDC	NPN	NO				
			NC				
			NO+NC				
		PNP	NO				
			NC				
			NO+NC				
		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□

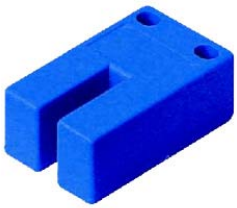
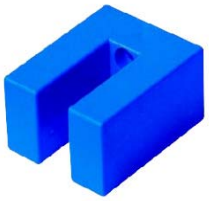
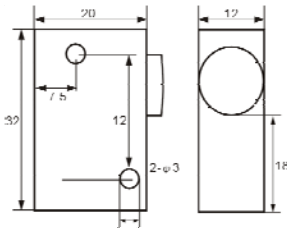
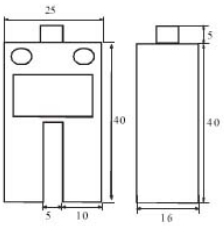
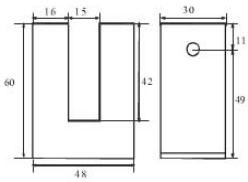
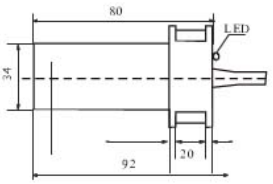
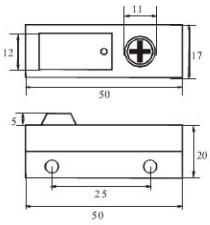
plane installation type				
LMF55	LM36	LM42	LM48	LM55
				
				
25mm	15mm	20mm	20mm	25mm
LMF55-3025NA	LM36-3015NA	LM42-3020NA	LM48-3020NA	LM55-3025NA
LMF55-3025NB	LM36-3015NB	LM42-3020NB	LM48-3020NB	LM55-3025NB
LMF55-3025NC	LM36-3015NC	LM42-3020NC	LM48-3020NC	LM55-3025NC
LMF55-3025PA	LM36-3015PA	LM42-3020PA	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

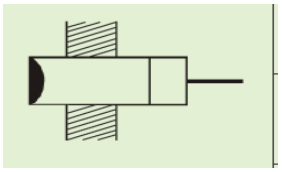
Structural category				Angular column type			
Outward appearance code				LMF380	LMF23	LMF24	LMF25
Outward appearance illustration							
Overall dimensions							
Flush	Detection distance					4mm	
	DC 6-36 VDC	NPN	NO			LMF21-3004NA	
			NC			LMF21-3004NB	
			NO+NC				
		PNP	NO			LMF21-3004PA	
			NC			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			

■ inductive proximity switch(E2E series)anti-omron series

● DC 3-wire type (E2E-X□E□)

Withstand voltage Size / Shield / Model / Item Detection distance		M8		M12		M18		M30	
		Shield	Non-shield	Shield	Non-shield	Shield	Non-shield	Shield	Non-shield
		E2E-X1R5E□	E2E-X2ME□	E2E-X2E□	E2E-X5ME□	E2E-X5E□	E2E-X10ME□	E2E-X10E□	E2E-X18ME□
		1．5mm±10%	2mm±10%	2mm±10%	5 mm±10%	5 mm±10%	10 mm±10%	10 mm±10%	18 mm±10%
Voltage		DC12~24V (P-P) fluctuate at 10% less							
Consumption		13mA less							
standard detected object		magnetic metal							
Standard detected object		8×8×1mm	12×12×1mm	12×12×1mm	15×15×1mm	18×18×1mm	30×30×1mm	30×30×1mm	54×54×1mm
tolerance distance		10% of detection distance less							
tolerance frequency		2.0kHZ	0.8 kHz	1.5 kHz	0.4kHz	0.6 kHz	0.2 kHz	0.4 kHz	0.1 kHz
Output control (switch capacity)*2		max 200mA							
Influence of temperature		within ±10% of detection distance at +23 C in the rang of -25~+70 C							
influence of voltage		Within ±10% of detection distance when the voltage in the range of ±15%							
residual voltage		Load current of 200 mA and 2 m long conductor							
insulation resistance		between the main body and crnst of charger							
Material	Crust	Cuzn							
	Detection surface	PBT							

●AC 2-wire type

Shape		Detection	Output	Type
Shield 	M8	1.5mm	NO	E2E-X1R5Y1
	M12	2mm	NO	E2E-X2Y1 *1.2
			NC	E2E-X2Y2
	M18	5mm	NO	E2E-X5Y1 *1.2
			NC	E2E-X5Y2
	M30	10mm	NO	E2E-X10Y1 *1.2
			NC	E2E-X10Y2
	M8	2mm	NO	E2E-X2MY1
	M12	5mm	NO	E2E-X5MY1 *1.2
			NC	E2E-X5MY2
	M18	10mm	NO	E2E-X10MY1 *1
			NC	E2E-X10MY2
	M30	18mm	NO	E2E-X18MY1 *1
			NC	E2E-X18MY2

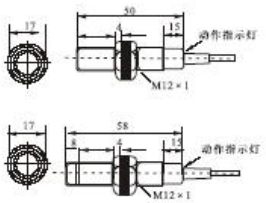
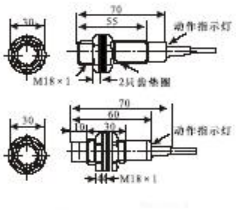
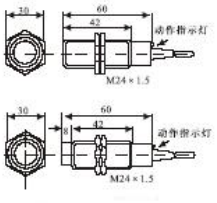
■ Inductance proximity switch.(Autonics kovea)

Type	DC 3 wire switching type							
	Flush	Non-flush	Flush	Non-flush	Flush	Non-flush	Flush	Non-flush
Model	PR08-1.5DN PR08-1.5DP PR08-1.5DN2 PR08-1.5DP2	PR08-2DN PR08-2DP PR08-2DN2 PR08-2DP	PR12-2DN PR12-2DP PR12-2DN2 PR12-2DP2 PRS12-2DN PRS12-2DP	PR12-4DN PR12-4DP PR12-4DN2 PR12-4DP2 PRS12-4DN PRS12-4DP	PR18-5DN PR18-5DP PR18-5DN2 PR18-5DP2 PRL18-5DN PRL18-5DP	PR18-8DN PR18-85DP PR18-8DN2 PR18-8DP2 PRL18-8DN PRL18-8DP	PR30-10DN PR30-10DP PR30-10DN2 PR30-10DP2 PRL30-10DN PRL30-10DP	PR30-15DN PR30-15DP PR30-15DN2 PR30-15DP2 PRL30-15DN PRL30-15DP
Appearances & dimensions	Flush  Non-flush [M08×1, L=30mm]		Flush  Non-flush [12×1, L=43mm] (short type:36,long type:72mm)		Flush  Non-flush [M18×1, L=47(long type:80)mm]		Flush  Non-flush [M30×1.5,L=58(long type:80)mm]	
Detecting distance	1.5mm±10%	2mm±10%	2mm±10%	4mm±10%	5mm±10%	8mm±10%	10mm±10%	15mm±10%
Hysteresis	Max 10%of detecting distance							
Standard target	8×8×1mm(iron)		12×12×1mm(iron)		18×18×1mm (iron)	25×25×1mm (iron)	30×30×1mm (iron)	45×45×1mm (iron)
Setting distance	0 to 1.05mm	0 to 1.4mm		0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to7mm	0 to10.5mm
Power supply (Allowable operating voltage)	DC12-240V (DC10-30V)							
Current consumption	Max. 10mA							
Response frequency	800Hz			400Hz	350Hz	200Hz	250Hz	100Hz
residual voltage	Max. 2V		Max. 1.5V					
Control output	200mA							
Protection circuit	Reverse polarity protection, surge protection circuit, overload & short-circuit protection except PR08,12 series							
Protection	IP67(IEC Standard)							

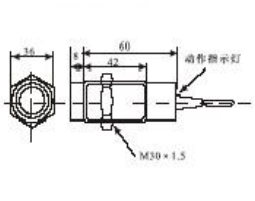
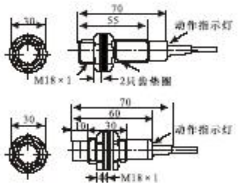
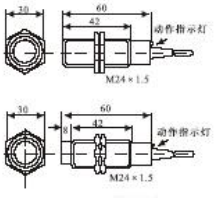
■ Inductance proximity switch (PR series)

Type	DC 3 wire switching type					
	Flush	Non-flush	Flush	Non-flush	Flush	Non-flush
Model	PR12-2AO PR12-2AC	PR12-4AO PR12-4AC	PR18-5AO PR18-5AC PRL18-5AO PRL18-5AC	PR18-8AO PR18-8AC PRL18-8AO PRL18-8AC	PR30-10AO PR30-10AC PRL30-10AO PRL30-10AC	PR30-15AO PR30-15AC PRL30-15AO PRL30-15AC
Appearances & dimensions	Flush  Non-flush [M08×1, L=30mm]		Flush  Non-flush [M08×1, L=30mm]		Flush  Non-flush [M18×1, L=47(long type:80)mm]	
Detecting distance	2mm±10%	4mm±10%	5mm±10%	8mm±10%	10mm±10%	15mm±10%
Hysteresis	Max. 10% of detecting distance					
Standard target	12×12×1mm(iron)		18×18×1mm(iron)	25×25×1mm(iron)	30×30×1mm(iron)	45×45×1mm(iron)
Setting distance	0 to 1.4mm	0 to 2.8mm	0 to 3.5mm	0 to 5.6mm	0 to 7mm	0 to 10.5mm
Power supply (Allowable operating voltage)	DC12-240V (85-264VAC)					
Current consumption	Max.25mA					
Response frequency	20Hz					
residual voltage	Max. 10V					
Control output	150mA		200mA			
Protection circuit	Surge protection circuit					
Protection	IP67(IEC Standard)					

AC-DC Universal Approach Switch

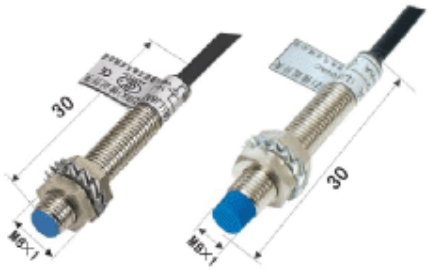
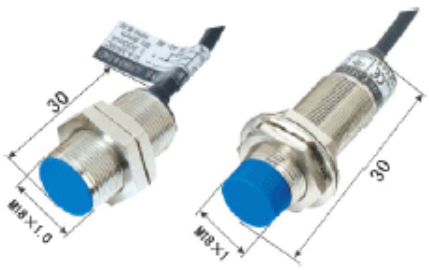
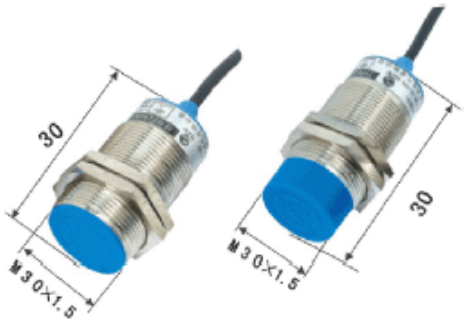
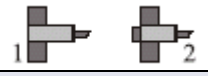
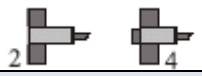
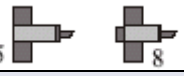
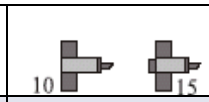
Structural category		Cylinder type					
Outward appearance code		LM12		LM18		LM24	
Outward appearance illustration							
Overall dimensions							
Detection distance		2mm	4mm	5mm	8mm	8mm	10mm
AD/DC	NO	LM12-4002A	LM12-4004A	LM18-4005A	LM18-4008A	LM24-4008A	LM24-4010A
	NC	LM12-4002B	LM12-4004B	LM18-400B	LM18-4008B	LM24-4008B	LM24-4010B
Working Voltage		20-230V AC/DC					
Output current		100-300mA					
Frequency		15Hz					
Working temperature		-25℃～+70℃					
Protection grade		IP67					

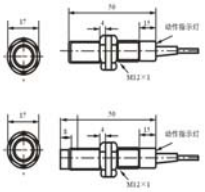
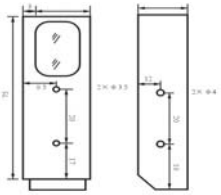
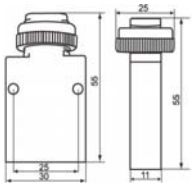
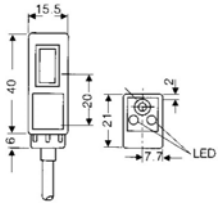
AC-DC Universal Approach Switch

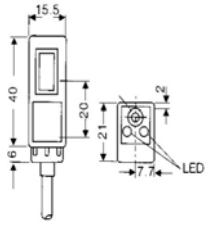
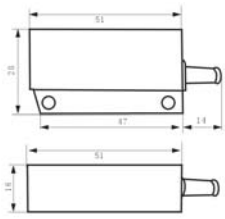
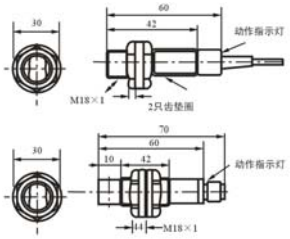
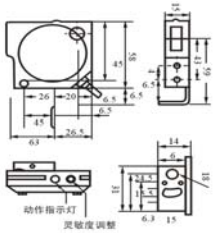
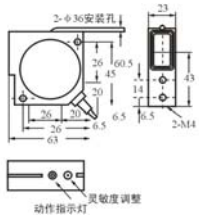
Structural category		Cylinder type		Angular column type	plane installation type
Outward appearance code		LM30		LMF37	LMF38
Outward appearance illustration					
Overall dimensions					
Detection distance		10mm	15mm	20mm	40mm
AD/DC	NO	LM30-4010A	LM30-4015A	LMF37-4020A	LMF38-4040A
	NC	LM30-4010B	LM30-4015B	LMF37-4020B	LMF38-4040B
Working Voltage		20-230V AC/DC			
Output current		100-300mA			
Frequency		15Hz			
Working temperature		-25℃～+70℃			
Protection grade		IP67		IP54	IP67

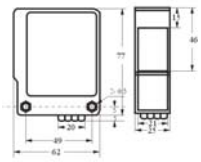
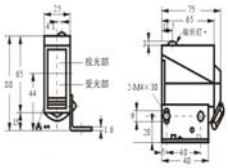
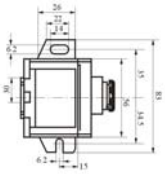
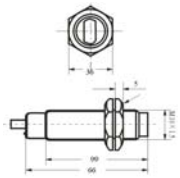
Outward appearance code and Overall dimensions

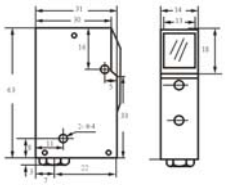
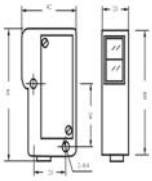
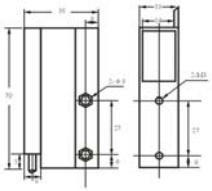
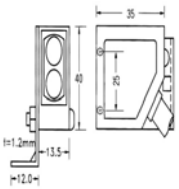
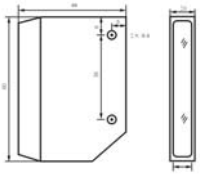
NAMUR sensor, also called safety explosion proof proximity switch, is made according to NAMUR and NIN1923, measured and designed as per chemical industry standard.

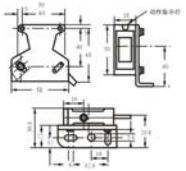
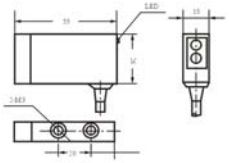
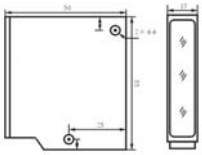
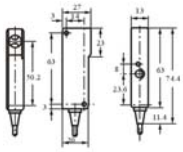
Structural category		Namur			
Outward appearance code		AM8-3001LB AM8-3002LB		AM18-3005LB AM18-3008LB	
Outward appearance illustration					
		AM12-3002LB AM12-3004LB		AM30-3010LB AM30-3015LB	
					
SN；（mm）					
standard detecting object Q235 steel(mm)		12×12×1t	12×12×1t	18×18×1t	30×30×1t
Model	Embedded	AM8-3001LB	AM8-3002LB	AM18-3005LB	AM18-3008LB
	Non-embedded	AM12-3002LB	AM12-3004LB	AM30-3010LB	AM30-3015LB
technical parameter	Rated current	8.2V	8.2V	8.2V	8.2V
	oscillating current/stop oscillating current	≥2.2mA/≤1mA	≥2.2mA/≤1mA	≥2.2mA/≤1mA	≥2.2mA/≤1mA
	Load resistance	1K Ω	1K Ω	1K Ω	1K Ω
	switch frequency, embedded/non-embedded	1.5Hz/1KHz	1.5Hz/1KHz	1.5Hz/1KHz	1.5Hz/1KHz
	Shell material	Metal	Metal	Metal	Metal
	Protection grade	IP67	IP67	IP67	IP67
	Working environment	-20℃～70℃	-20℃～70℃	-20℃～70℃	-20℃～70℃
	external wiring diagram				

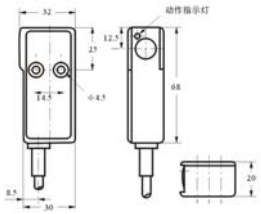
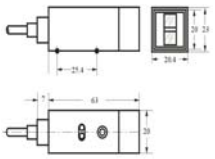
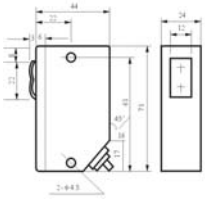
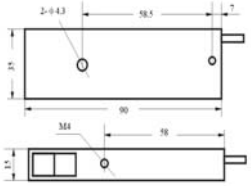
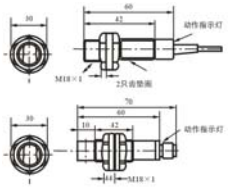
Structural category				Photoelectric switch			
Outward appearance code				G12	G13	G14	G15
Outward appearance illustration							
Overall dimensions							
Diffuse type	Detection distance			7cm	10cm	10cm	10cm
	10-30 VDC	NPN	NO	G12-3A07NA	G13-3A10NA	G14-3A10NA	G15-3A10NA
			NC	G12-3A07NB	G13-3A10NB	G14-3A10NB	G15-3A10NB
			NO+NC				
		PNP	NO	G12-3A07PA	G13-3A10PA	G14-3A10PA	G15-3A10PA
			NC	G12-3A07PB	G13-3A10PB	G14-3A10PB	G15-3A10PB
			NO+NC				
	90~250 VAC	Controllable silicon	NO				
			NC				
		Relay output					
Retroreflictive	Detection distance			1m	1m	1m	1m
	10-30 VDC	NPN	NO	G12-3B1NA	G13-3B1NA	G14-3B1NA	G15-3B1NA
			NC	G12-3B1NB	G13-3B1NB	G14-3B1NB	G15-3B1NB
			NO+NC				
		PNP	NO	G12-3B1PA	G13-3 B1PA	G14-3 B1PA	G15-3 B1PA
			NC	G12-3 B1PB	G13-3 B1PB	G14-3 B1PB	G15-3 B1PB
			NO+NC				
	90~250 VAC	Controllable silicon	NO				
			NC				
		Relay output					
Trough beam	Detection distance			3m	3m	3m	3m
	10-30 VDC	NPN	NO	G12-3C3NA	G13-3 C3NA	G14-3 C3NA	G15-3 C3NA
			NC	G12-3 C3NB	G13-3 C3NB	G14-3 C3NB	G15-3 C3NB
			NO+NC				
		PNP	NO	G12-3 C3PA	G13-3 C3PA	G14-3 C3PA	G15-3 C3PA
			NC	G12-3 C3PB	G13-3 C3PB	G14-3 C3PB	G15-3 C3PB
			NO+NC				
	90~250 VAC	Controllable silicon	NO				
			NC				
		Relay output					
DC/AC/ Control output				DC:200mA			
DC/AC Consumption current				DC<15Ma			
DC/AC Response time				DC<2ms			
Directional angel				3° -10°			
Detected object				transparent or opaque body			
Working environment temperature				-25℃— +55℃			
Intensity of illumination working environment				Sunlight under 10000LX incandescent lamp under 3000LX			
Shell material				Metal	Metal	Metal	Plastic, Metal
Protection grade				IP54	IP54	IP54	IP54

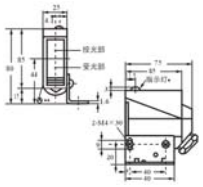
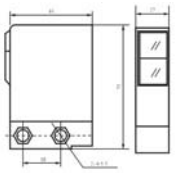
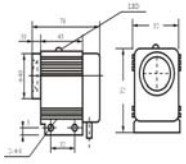
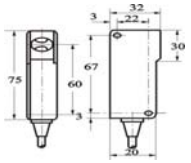
Photoelectric switch				
G16	G17	G18	G23	G24
				
				
10cm	30cm	10cm	10cm-50cm	50cm
G16-3A10NA	G17-3A30NA	G18-3A10NA	G23-3A10NA	G24-3A50NA
G16-3A10NB	G17-3A30NB	G18-3A10NB	G23-3A10NB	G24-3A50NB
	G17-3A30NC	G18-3A10NC	G23-3A10NC	G24-3A50NC
G16-3A10PA	G17-3A30PA	G18-3A10PA	G23-3A10PA	G24-3A50PA
G16-3A10PB	G17-3A30PB	G18-3A10PB	G23-3A10PB	G24-3A50PB
	G17-3A30PC	G18-3A10PC	G23-3A10PC	G24-3A50PC
		G18-2A10LA		G24-2A50LA
		G18-2A10LB		G24-2A50LB
				G24-2A50JC
1m	2m	2m	2m	4m
G16-3B1NA	G17-3B2NA	G18-3B2NA	G23-3B2NA	G24-3B4NA
G16-3B1NB	G17-3B2NB	G18-3B2NB	G23-3B2NB	G24-3B4NB
	G17-3B2NC	G18-3B2NC	G23-3B2NC	G24-3B4NC
G16-3B1PA	G17-3B2PA	G18-3B2PA	G23-3B2PA	G24-3B4PA
G16-3B1PB	G17-3B2PB	G18-3B2PB	G23-3B2PB	G24-3B4PB
	G17-3B2PC	G18-3B2PC	G23-3B2PC	G24-3B4PC
		G18-2B2LA		G24-2B4PA
		G18-2B2LB		G24-2B4PB
				G24-2B4JC
	3m	5m	5m	5m
	G17-3C3NA	G18-3C5NA	G23-3 C5NA	G24-3 C5NA
	G17-3 C3NB	G18-3 C5NB	G23-3 C5NB	G24-3 C5NB
	G17-3 C3NC	G18-3 C5NC	G23-3 C5NC	G24-3 C5NC
	G17-3 C3PA	G18-3 C5PA	G23-3 C5PA	G24-3 C5PA
	G17-3 C3PB	G18-3 C5PB	G23-3 C5PB	G24-3 C5PB
	G17-3 C3PC	G18-3 C5PC	G23-3 C5PC	G24-3 C5PC
		G18-2 C5LA		G24-2 C5PA
		G18-2 C5LB		G24-2 C5PB
				G24-2 C5JC
DC:200mA AC:300mA				
DC<15 mA AC<10 mA				
DC<2ms AC<20ms				
3° -10°				
transparent or opaque body				
-25℃— +55℃				
Sunlight under 10000LX incandescent lamp under 3000LX				
Plastic			metal	metal
IP54		IP66	IP54	

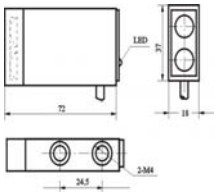
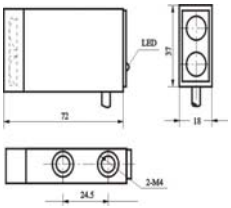
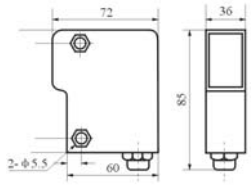
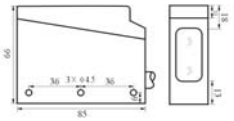
Structural category				Photoelectric switch			
Outward appearance code				G25	G26	G28	G30
Outward appearance illustration							
Overall dimensions							
Diffuse type	Detection distance			70cm	70cm	50cm	20~100cm
	10-30 VDC	NPN	NO	G25-3A70NA	G26-3A70NA	G28-3A50NA	G30-3A70NA
			NC	G25-3A70NB	G26-3A70NB	G28-3A50NB	G30-3A70NB
			NO+NC	G25-3A70NC	G26-3A70NC	G28-3A50NC	G30-3A70NC
		PNP	NO	G25-3A70PA	G26-3A70PA	G28-3A50PA	G30-3A70PA
			NC	G25-3A70PB	G26-3A70PB	G28-3A50PB	G30-3A70PB
			NO+NC	G25-3A70PC	G26-3A70PC	G28-3A50PC	G30-3A70PC
	90~250 VAC	Controllable silicon	NO	G25-2A70LA	G26-2A70LA	G282A50LA	G30-2A70LA
			NC	G25-2A70LB	G26-2A70LB	G28-2A50LB	G30-2A70LB
		Relay output		G25-2A70JC	G26-2A70JC	G28-2A50JC	G30-2A70JC
Retroreflictive	Detection distance			4m	4m	3m	3~5cm
	10-30 VDC	NPN	NO	G25-3B4NA	G26-3B4NA	G28-3B3NA	G30-3B3NA
			NC	G25-3B4NB	G26-3B4NB	G28-3B3NB	G30-3B3NB
			NO+NC	G25-3B4NC	G26-3B4NC	G28-3B3NC	G30-3B3NC
		PNP	NO	G25-3B4PA	G26-3B4PA	G28-3B3PA	G30-3B3PA
			NC	G25-3B4PB	G26-3B4PB	G28-3B3PB	G30-3B3PB
			NO+NC	G25-3B4PC	G26-3B4PC	G28-3B3PC	G30-3B3PC
	90~250 VAC	Controllable silicon	NO	G25-2B4LA	G26-2B4LA	G28-2B3LA	G30-2B3LA
			NC	G25-2B4LB	G26-2B4LB	G28-2B3LB	G30-2B3LB
		Relay output		G25-2B4JC	G26-2B4JC	G28-2B3JC	G30-2B3JC
Trough beam	Detection distance			7m	10m	10m	10m
	10-30 VDC	NPN	NO	G25-3C7NA	G26-3C101NA	G28-3C101NA	G30-3C101NA
			NC	G25-3C7NB	G26-3C101NB	G28-3C101NB	G30-3C101NB
			NO+NC	G25-3C7NC	G26-3C101NC	G28-3C101NC	G30-3C101NC
		PNP	NO	G25-3C7PA	G26-3C101PA	G28-3C101PA	G30-3C101PA
			NC	G25-3C7PB	G26-3C101PB	G28-3C101PB	G30-3C101PB
			NO+NC	G25-3C7PC	G26-3C101PC	G28-3C101PC	G30-3C101PC
	90~250 VAC	Controllable silicon	NO	G25-2C7LA	G26-2C101LA	G28-2C101LA	G30-2C101LA
			NC	G25-2C7LB	G26-2C101LB	G28-2C101LB	G30-2C101LB
		Relay output		G25-2C7JC	G26-2C101LC	G28-2C101LC	G30-2C101JC
DC/AC/ Control output				DC：200mA、AC:300mA、relay:2A			
DC/AC Consumption current				DC:＜15mA、 AC:＜10mA			
DC/AC Response time				DC＜2mS AC＜20mS			
Directional angel				3°-10°			
Detected object				transparent or opaque body			
Working environment temperature				-25℃— +55℃			
Intensity of illumination working environment				Sunlight under 10000LX incandescent lamp under 3000LX			
Shell material				Plastic	Metal	Metal	Plastic
Protection grade				IP54	IP50	IP54	IP6

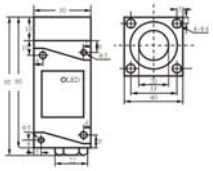
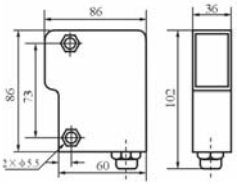
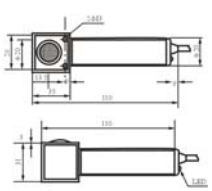
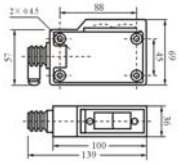
Photoelectric switch				
G33	G35	G36	G40	G44
				
				
10cm	50cm	20cm	10cm-50cm	30cm
G33-3A10NA	G35-3A50NA	G36-3A20NA	G40-3A10NA	G44-3A30NA
G33-3A10NB	G35-3A50NB	G36-3A20NB	G40-3A10NB	G44-3A30NB
G33-3A10NC	G35-3A50NC	G36-3A20NC		
G33-3A10PA	G35-3A50PA	G36-3A20PA	G40-3A10PA	G44-3A30PA
G33-3A10PB	G35-3A50PB	G36-3A20PB	G40-3A10PB	G44-3A30PB
G33-3A10PC	G35-3A50PC	G36-3A20PC		
	G35-2A50LA			
	G35-2A50LB			
	G35-2A50JC			
1m	3m	2m	1m	3m
G33-3B1NA	G35-3B3NA	G36-3B2NA	G40-3B1NA	G44-3B3NA
G33-3B1NB	G35-3B3NB	G36-3B2NB	G40-3B1NB	G44-3B3NB
G33-3B1NC	G35-3B3NC	G36-3B2NC		
G33-3B1PA	G35-3B3PA	G36-3B2PA	G40-3B1PA	G44-3B3PA
G33-3B1PC	G35-3B3PB	G36-3B2PB	G40-3B1PB	G44-3B3PB
	G35-3B3PC	G36-3B2PC		
	G35-2B3LA			
	G35-2B3LB			
	G35-2B3JC			
3m	5m	5m	3m	5m
G33-3C3NA	G35-3C5NA	G36-3C5NA	G40-3C3NA	G44-3C5NA
G33-3C3NB	G35-3C5NB	G36-3C5NB	G40-3C3NB	G44-3C5NB
G33-3C3NC	G35-3C5NC	G36-3C5NC		
G33-3C3PA	G35-3C5PA	G36-3C5PA	G40-3C3PA	G44-3C5PA
G33-3C3PB	G35-3C5PB	G36-3C5PB	G40-3C3PB	G44-3C5PB
G33-3C3PC	G35-3C5PC	G36-3C5PC		
	G35-2C5LA			
	G35-2C5LB			
	G35-2C5JC			
DC:200mA AC:300mA				
DC<15 mA AC<10 mA				
DC<2ms AC<20ms				
3°-10°				
transparent or opaque body				
-25℃— +55℃				
Sunlight under 10000LX incandescent lamp under 3000LX				
Plastic	metal		Plastic	metal
IP54	IP54	IP54	IP54	IP54

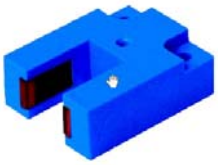
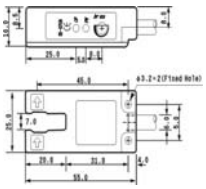
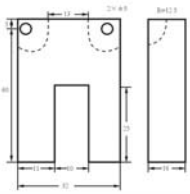
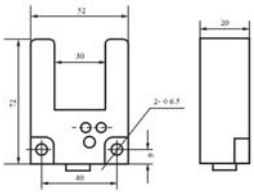
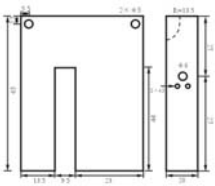
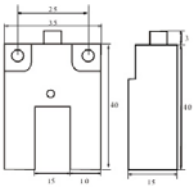
Structural category				Photoelectric switch			
Outward appearance code				G50	G54	G55	G64
Outward appearance illustration							
Overall dimensions							
Diffuse type	Detection distance			30cm 50cm	20cm	20cm	10cm
	10-30 VDC	NPN	NO	G50-3A30NA	G54-3A20NA	G55-3A20NA	G64-3A10NA
			NC	G50-3A30NB	G54-3A20NB	G55-3A20NB	G64-3A10NB
			NO+NC	G50-3A30NC	G54-3A20NC		G64-3A10NC
		PNP	NO	G50-3A30PA	G54-3A20PA	G55-3A20PA	G64-3A10PA
			NC	G50-3A30PB	G54-3A20PB	G55-3A20PB	G64-3A10PB
			NO+NC	G50-3A30PC	G54-3A20PC		G64-3A10PC
	90~250 VAC	Controllable silicon	开 NO				
			NC				
		Relay output		G50-2A30JC			
Retroreflictive	Detection distance			4m	2m	2cm	1.5m
	10-30 VDC	NPN	NO	G50-3B4NA	G54-3B2NA	G55-3B2NA	G64-3B2NA
			NC	G50-3B4NB	G54-3B2NB	G55-3B2NB	G64-3B2NB
			NO+NC	G50-3B4NC	G54-3B2NC		G64-3B2NC
		PNP	NO	G50-3B4PA	G54-3B2PA	G55-3B2PA	G64-3B2PA
			NC	G50-3B4PB	G54-3B2PB	G55-3B2PB	G64-3B2PB
			NO+NC	G50-3B4PC	G54-3B2PC		G64-3B2PC
	90~250 VAC	Controllable silicon	NO	G50-2B4LA			
			NC	G50-2B4LB			
		Relay output		G50-2B4JC			
Trough beam	Detection distance			5m	5m	4cm	3m
	10-30 VDC	NPN	NO	G50-3C5NA	G54-3C5NA	G55-3C4NA	G64-3C3NA
			NC	G50-3C5NB	G54-3C5NB	G55-3C4NB	G64-3C3NB
			NO+NC	G50-3C5NC	G54-3C5NC		G64-3C3NC
		PNP	NO	G50-3C5PA	G54-3C5PA	G55-3C4PA	G64-3C3PA
			NC	G50-3C5PB	G54-3C5PB	G55-3C4PB	G64-3C3PB
			NO+NC	G50-3C5PC	G54-3C5PC		G64-3C3PC
	90~250 VAC	Controllable silicon	NO	G50-2C5LA			
			NC	G50-2C5LB			
		Relay output		G50-2C5JC			
DC/AC/ Control output				DC：200mA、AC:300mA、relay:2A			
DC/AC Consumption current				DC:＜15mA、 AC:＜10mA			
DC/AC Response time				DC＜2mS AC＜20mS			
Directional angel				3°-10°			
Detected object				transparent or opaque body			
Working environment temperature				-25℃— +55℃			
Intensity of illumination working environment				Sunlight under 10000LX incandescent lamp under 3000LX			
Shell material				Plastic		Metal	Plastic
Protection grade				IP54	IP54	IP54	IP54

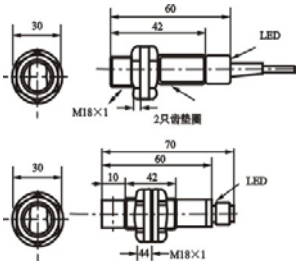
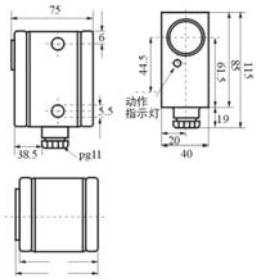
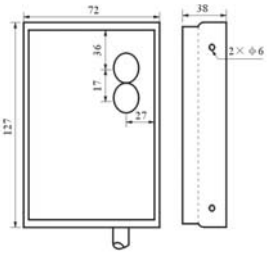
Photoelectric switch				
G68	G70	G71	G72	G180
				
				
	20~100cm	50cm	40cm	10cm
	G70-3A20NA	G71-3A50NA	G72-3A40NA	G180-3A10NA
	G70-3A20NB	G71-3A50NB	G72-3A40NB	G180-3A10NB
	G70-3A20NC	G71-3A50NC	G72-3A40NC	G180-3A10NC
	G70-3A20PA	G71-3A50PA	G72-3A40PA	G180-3A10PA
	G70-3A20PB	G71-3A50PB	G72-3A40PB	G180-3A10PB
	G70-3A20PC	G71-3A50PC	G72-3A40PC	G180-3A10PC
	G70-2A20LA	G71-2A50LA	G72-2A40LA	G180-2A10LA
	G70-2A20LB	G71-2A50LB	G72-2A40LB	G180-2A10LB
	2m	2m	3m	2m
	G70-3B2NA	G71-3B2NA	G72-3B3NA	G180-3B2NA
	G70-3B2NB	G71-3B2NB	G72-3B3NB	G180-3B2NB
	G70-3B2NC	G71-3B2NC	G72-3B3NC	G180-3B2NC
	G70-3B2PA	G71-3B2PA	G72-3B3PA	G180-3B2PA
	G70-3B2PB	G71-3B2PB	G72-3B3PB	G180-3B2PB
	G70-3B2PC	G71-3B2PC	G72-3B3PC	G180-3B2PC
	G70-2B2LA	G71-2B2LA	G72-2B3LA	G180-2B2LA
	G70-2B2LB	G71-2B2LB	G72-2B3LB	G180-2B2LB
5m	5m	5m	5m	5m
G68-3C5NA	G70-3C5NA	G71-3C5NA	G72-3C5NA	G180-3C5NA
G68-3C5NB	G70-3C5NB	G71-3C5NB	G72-3C5NB	G180-3 C5NB
G68-3C5NC	G70-3C5NC	G71-3C5NC	G72-3C5NC	G180-3 C5NC
G68-3C5PA	G70-3C5PA	G71-3C5PA	G72-3C5PA	G180-3 C5PA
G68-3C5PB	G70-3C5PB	G71-3C5PB	G72-3C5PB	G180-3 C5PB
G68-3C5PC	G70-3C5PC	G71-3C5PC	G72-3C5PC	G180-3 C5PC
	G70-2C5LA	G71-2C5LA	G72-2C5LA	G180-2 C5LA
	G70-2C5LB	G71-2C5LB	G72-2C5LB	G180-2 C5LB
DC:200mA AC:300mA				
DC<15 mA AC<10 mA				
DC<2ms AC<20ms				
3° -10°				
transparent or opaque body				
-25℃— +55℃				
Sunlight under 10000LX incandescent lamp under 3000LX				
Plastic			metal	Plastic
IP54	IP66	IP54	IP54	IP66

Structural category				Photoelectric switch			
Outward appearance code				G74	G75	G76	G77
Outward appearance illustration							
Overall dimensions							
Diffuse type	Detection distance			70cm	80cm		30cm
	10-30 VDC	NPN	NO	G74-3A70NA	G75-3A80NA		G77-3A30NA
			NC	G74-3A70NB	G75-3A80NB		G77-3A30NB
			NO+NC	G74-3A70NC	G75-3A80NC		G77-3A30NC
		PNP	NO	G74-3A70PA	G75-3A80PA		G77-3A30PA
			NC	G74-3A70PB	G75-3A80PB		G77-3A30PB
			NO+NC	G74-3A70PC	G75-3A80PC		G77-3A30PC
	90~250 VAC	Controllable silicon	NO	G74-2A70LA	G75-2A80LA		G77-2A30LA
			NC	G74-2A70LB	G75-2A80LB		G77-2A30LB
		Relay output		G74-2A70JC	G75-2A80JC		
Retroreflictive	Detection distance			4m	3m		3m
	10-30 VDC	NPN	NO	G74-3B4NA	G75-3B3NA		G77-3B3NA
			NC	G74-3B4NB	G75-3B3NB		G77-3B3NB
			NO+NC	G74-3B4NC	G75-3B3NC		G77-3B3NC
		PNP	NO	G74-3B4PA	G75-3B3PA		G77-3B3PA
			NC	G74-3B4PB	G75-3B3PB		G77-3B3PB
			NO+NC	G74-3B4PC	G75-3B3PC		G77-3B3PC
	90~250 VAC	Controllable silicon	NO	G74-2B4LA	G75-2B3LA		G77-2B3LA
			NC	G74-2B4LB	G75-2B3LB		G77-2B3LB
		Relay output		G74-2B4JC	G75-2B3JC		
Trough beam	Detection distance			8m	8m	10m-50m	5m
	10-30 VDC	NPN	NO	G74-3C8NA	G75-3C8NA	G76-3C101NA	G77-3C5NA
			NC	G74-3C8NB	G75-3C8NB	G76-3C101NB	G77-3C5NB
			NO+NC	G74-3C8NC	G75-3C8NC	G76-3C101NC	G77-3C5NC
		PNP	NO	G74-3C8PA	G75-3C8PA	G76-3C101PA	G77-3C5PA
			NC	G74-3C8PB	G75-3C8PB	G76-3C101PB	G77-3C5PB
			NO+NC	G74-3C8PC	G75-3C8PC	G76-3C101PC	G77-3C5PC
	90~250 VAC	Controllable silicon	NO	G74-2C8LA	G75-2C8LA	G76-2C101LA	G77-2C5LA
			NC	G74-2C8LB	G75-2C8LB	G76-2C101LB	G77-2C5LB
		Relay output		G74-2C8JC	G75-2C8JC	G76-2C101JC	
DC/AC/ Control output				DC：200mA、AC:300mA、relay:2A			
DC/AC Consumption current				DC:＜15mA、 AC:＜10mA			
DC/AC Response time				DC＜2mS AC＜20mS			
Directional angel				3°-10°			
Detected object				transparent or opaque body			
Working environment temperature				-25℃— +55℃			
Intensity of illumination working environment				Sunlight under 10000LX incandescent lamp under 3000LX			
Shell material				Plastic	Metal	Plastic	
Protection grade				IP54	IP54	IP54	

Photoelectric switch			
G78	G80	G85	G86
			
			
40cm	80cm	1m	70cm
G78-3A40NA	G80-3A80NA	G85-3A1NA	G86-3A70NA
G78-3A40NB	G80-3A80NB	G85-3A1NB	G86-3A70NB
G78-3A40NC	G80-3A80NC	G85-3A1NC	G86-3A70NC
G78-3A40PA	G80-3A80PA	G85-3A1PA	G86-3A70PA
G78-3A40PB	G80-3A80PB	G85-3A1PB	G86-3A70PB
G78-3A40PC	G80-3A80PC	G85-3A1PC	G86-3A70PC
G78-2A40LA	G80-2A80LA	G85-2A1LA	G86-2A70LA
G78-2A40JC	G80-2A80JC	G85-2A1JC	G86-2A70JC
2m	3m	5m	4m
G78-3B2NA	G80-3B3NA	G85-3B5NA	G86-3B4NA
G78-3B2NB	G80-3B3NB	G85-3B5NB	G86-3B4NB
G78-3B2NC	G80-3B3NC	G85-3B5NC	G86-3B4NC
G78-3B2PA	G80-3B3PA	G85-3B5PA	G86-3B4PA
G78-3B2PB	G80-3B3PB	G85-3B5PB	G86-3B4PB
G78-3B2PC	G80-3B3PC	G85-3B5PC	G86-3B4PC
G78-2B2LA	G80-2B3LA	G85-2B5LA	G86-2B4LA
G78-2B2JC	G80-2B3JC	G85-2B5JC	G86-2B4JC
5m	5m	10m	10m
G78-3C5NA	G80-3C5NA	G85-3C101NA	G86-3C101NA
G78-3C5NB	G80-3C5NB	G85-3C101NB	G86-3C101NB
G78-3C5NC	G80-3C5NC	G85-3C101NC	G86-3C101NC
G78-3C5PA	G80-3C5PA	G85-3C101PA	G86-3C101PA
G78-3C5PB	G80-3C5PB	G85-3C101PB	G86-3C101PB
G78-3C5PC	G80-3C5PC	G85-3C101PC	G86-3C101PC
G78-2C5LA	G80-2C5LA	G85-2C101LA	G86-2C101LA
	G80-2C5JC	G85-2C101JC	G86-2C101JC
DC:200mA AC:300mA			
DC<15 mA AC<10 mA			
DC<2ms AC<20ms			
3° -10°			
transparent or opaque body			
-25℃— +55℃			
Sunlight under 10000LX incandescent lamp under 3000LX			
Plastic	Plastic	Metal	
IP54	IP54	IP54	

Structural category				Photoelectric switch			
Outward appearance code				G90	G100	G110	G139
Outward appearance illustration							
Overall dimensions							
Diffuse type	Detection distance			70cm	1m		1m
	10-30 VDC	NPN	NO	G90-3A70NA	G100-3A1NA		G139-3A1NA
			NC	G90-3A70NB	G100-3A1NB		G139-3A1NB
			NO+NC	G90-3A70NC	G100-3A1NC		G139-3A1NC
		PNP	NO	G90-3A70PA	G100-3A1PA		G139-3A1PA
			NC	G90-3A70PB	G100-3A1PB		G139-3A1PB
			NO+NC	G90-3A70PC	G100-3A1PC		G139-3A1PC
	90~250 VAC	Controllable silicon	NO	G90-2A70LA	G100-3A1LA		G139-2A1LA
			NC				
		Relay output		G90-2A70JC	G100-3A1JC		G139-2A1JC
Retroreflictive	Detection distance			5m	5m		5m
	10-30 VDC	NPN	NO	G90-3B5NA	G100-3B5NA		G139-3B5NA
			NC	G90-3B5NB	G100-3B5NB		G139-3B5NB
			NO+NC	G90-3B5NC	G100-3B5NC		G139-3B5NC
		PNP	NO	G90-3B5PA	G100-3B5PA		G139-3B5PA
			NC	G90-3B5PB	G100-3B5PB		G139-3B5PB
			NO+NC	G90-3B5PC	G100-3B5PC		G139-3B5PC
	90~250 VAC	Controllable silicon	NO	G90-2B5LA	G100-2B5LA		G139-2B5LA
			NC				
		Relay output		G90-2B5JC	G100-2B5JC		G139-2B5JC
Trough beam	Detection distance			10m	10m	5m	10m
	10-30 VDC	NPN	NO	G90-3C101NA	G100-3C101NA	G110-3C5NA	G139-3C101NA
			NC	G90-3C101NB	G100-3C101NB	G110-3C5NB	G139-3C101NB
			NO+NC	G90-3C101NC	G100-3C101NC	G110-3C5NC	G139-3C101NC
		PNP	NO	G90-3C101PA	G100-3C101PA	G110-3C5PA	G139-3C101PA
			NC	G90-3C101PB	G100-3C101PB	G110-3C5PB	G139-3C101PB
			NO+NC	G90-3C101PC	G100-3C101PC	G110-3C5PC	G139-3C101PC
	90~250 VAC	Controllable silicon	NO	G90-2C101LA	G100-2C101LA	G110-2C5LA	G139-2C101LA
			NC				
		Relay output		G90-2C101LC	G100-2C101JC		G139-2C101JC
DC/AC/ Control output				DC：200mA、AC:300mA、relay:2A			
DC/AC Consumption current				DC:＜15mA、 AC:＜10mA			
DC/AC Response time				DC＜2mS AC＜20mS			
Directional angel				3°-10°			
Detected object				transparent or opaque body			
Working environment temperature				-25℃— +55℃			
Intensity of illumination working environment				Sunlight under 10000LX incandescent lamp under 3000LX			
Shell material				Metal G39			
Protection grade				IP54	IP54	TP66	IP54

Photoelectric switch				
G56	G60	G63	G65	G57
				
				
17m	1cm	3cm	1cm	1.5cm
G56-3E01NA	G60-3E01NA	G63-3E03NA	G65-3E01NA	G57-3E02NA
G56-3E01NB	G60-3E01NB	G63-3E03NB	G65-3E01NB	G57-3E02NB
G56-3E01NC	G60-3E01NC	G63-3E03NC	G65-3E01NC	
G56-3E01PA	G60-3E01PA	G63-3E03PA	G65-3E01PA	G57-3E02PA
G56-3E01PB	G60-3E01PB	G63-3E03PB	G65-3E01PB	G57-3E02PB
G56-3E01PC	G60-3E01PC	G63-3E03PC	G65-3E01PC	
DC:200mA AC:300mA				
DC<15 mA AC<10 mA				
DC<2ms AC<20ms				
3° -10°				
transparent or opaque body				
-25℃— +55℃				
Sunlight under 10000LX ncandescent lamp under 3000LX				
Plastic	metal	Metal or Plastic	metal	Plastic
IP54				

Photoelectric switch commonly used in package and textile machinery			
Outward appearance illustration			
Overall dimensions			
Working voltage	AC220V/110V	AC220V	AC220V
Consumption power	3W		
Detection distance	500mm.1m.5m	500mm.3m.5m	70cm
Detected object	opaque body and semitransparent body		
Delayed time	1-10s		
Control output	AC220V 2A		
Intensity of illumination working	Sunlight under 10000LX incandescent lamp under 3000LX		
Working environment temperature	while working -15~+55℃， while storing：-25~+70℃		
Protection grade	IP65 IEC standard IP65		
Model available	GDN16-CF500W GDN16-CF1W	GDN15-CT5(10)W GDN15-CQ3W GDN15-CF500W	YT523B
Applicable range	Applicable for position detection and level control, and replaceable for Model YT523 product in textile mechanical industry and tobacco cutter automatic line	This infrared ray diffused type photoelectric switch can take the place of outdated mercury switch. It can be used together with various unmixed waste cotton openers to continuously check and automatic control the cotton height inside the cotton case. In addition, it applies to other automatic control system at similar occasions and conducts various position detections.	

TD MIRROR REFLECTORP PLATE AND WORKING PRINCIPLE

Taking advantage of the built-in polarization filter and the characteristic of feedback reflection type feedback reflection type photoelectric switch has the function of only receiving the beam returned from the reflector plate.

TD mirror reflection plate

TD-01（1）	TD-01（2）	TD-02	TD-18
 size 85×55	 size 75×55	 size 65×40	 size 55×45
TD-03	TD-04	TD-05	TD-05(1)
 size 81×57	 size Φ40×75	 size Φ82×8	 size Φ80×9
TD-08	TD-180	E39-R1	
 size 62×51	 size180×40	 size 60×40	

■ Safe and reliable optic screen sensor

- Applicable for the safety detection of automatic assembly line, elevator, danger restricted zone, metal forming machine, punching & shearing machine tool, paper cutter and so on and has protection function.
- Adopting synchronism scanning technology, concentrated beam path, non working blind area, strong anti-interference ability, and convenient installation.
- Resistance to mutual interference function. It is possible to closely mount more than 2 sets of devices.
- Fault self-check, function, power failure stop, inner component fault stop, connection fault stop, object invading stop signal output.
- Attached with specific control supplying powerful control function.
- Replaceable for similar products made by SICK,STI, KEYENCE, Honeylell Corp.

Detection way	Model	Detection distance	Optic axis distance	Optic axis number	Detection width	Min detectable object
Trough-beam	GM40-4	≤3m	40mm	4	120mm	φ50mm
	GM40-6			6	200mm	
	GM40-8			8	280mm	
	GM40-10			10	360mm	
	GM40-12			12	440mm	
	GM40-16			16	600mm	
	GM40-20			20	760mm	
	GM40-24			24	920mm	
	GM40-32			32	1240mm	
	GM40-40			40	1560mm	
	GM40-56			56	2220mm	
	GM40-64			64	2520mm	
Trough-beam	GM20-4	≤3m	20mm	4	60mm	φ30mm
	GM20-6			6	100mm	
	GM20-8			8	140mm	
	GM20-10			10	180mm	
	GM20-12			12	220mm	
	GM20-16			16	300mm	
	GM20-20			20	380mm	
	GM20-24			24	460mm	
	GM20-32			32	620mm	
	GM20-40			40	780mm	
	GM20-56			56	1100mm	
	GM20-64			64	1260mm	

■GM optic screen sensor

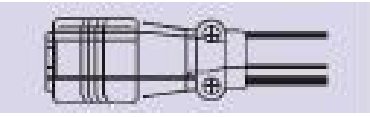
●Performance

Power voltage	Under 12 VDC ± pulsation(P-P)10%
Consumption current	Under 100mA
Response time	Under 20mS
Output form	Collector open circuti NPN type: current 100mA, residual voltage 1.6V
Output state	N ON when all the optic axis is photic
Optic source	Infrared ray LED
Connection way	With specific cable connector
Shell material	Sheel:A1 alloy, color filter cover :PMMA
Environment-resisting light	Incandescent lamp: intensity of illumination of photic surface 3000Lx, sunlight: intensity of illumiation of photic surface 10000Lx.
Ambient temperature	-10~55(do not freeze)while working -40~70 while storing
Environment humidity	35~85%RH while working, 35~39%RH while storing
Vibration	Vibration frequency: 10~55Hz, vibration range: 1.5mm, each direction of X、Y、Z 2 hours
Shock	Acceleration: 500/s(about 50g) each direction of X、Y、Z for 3 times

●Controller

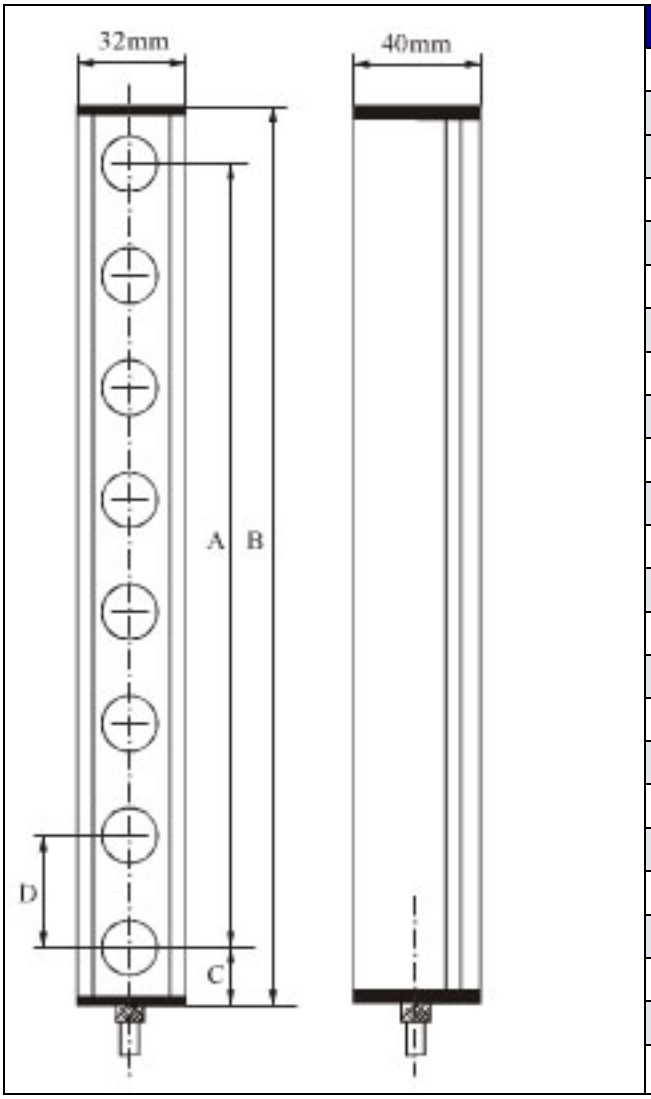
Type	GMK
Power voltage	200～220VAC±10%，50/60Hz，3.5V
Consumption current	<100mA
Response time	<200mS
Output	COS Φ=1，AC 250V 5A，NO+NC
Optic source	LED
Delayed Function	0.01～5S
indicator light	Power indicator light（G），working indicator light（R）
Shell material	ABS
Ambient temperature	-10~55(do not freeze)while working -40~70 while storing
Environment humidity	35~85%RH while working, 35~39%RH while storing
Vibration	Vibration frequency: 10~55Hz, vibration range: 1.5mm, each direction of X、Y、Z 2 hours
Shock	Acceleration: 500/s(about 50g) 3 times for X、Y、Z each

●cable connector

Overall	Type	Length	Application
	◎GML-5-4	5m	For four-core projector
	◎GML-5-5	5m	For five-core projector

● Overall dimensions

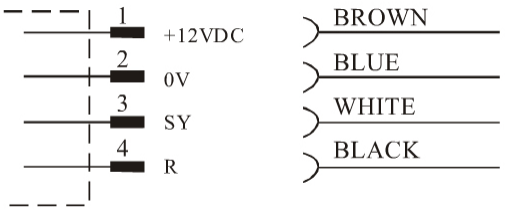
Unit: mm



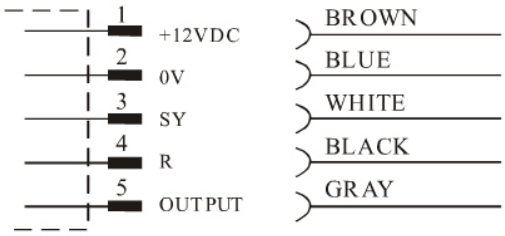
TYPE	A	B	C	D
GM40-4	120	180	30	40
GM40-6	200	260	30	40
GM40-8	280	340	30	40
GM40-10	360	420	30	40
GM40-12	440	500	30	40
GM40-16	600	660	30	40
GM40-20	760	820	30	40
GM40-24	920	980	30	40
GM40-32	1240	1300	30	40
GM40-40	1560	1620	30	40
GM40-56	2220	2260	30	40
GM40-64	2520	2580	30	40
GM20-4	60	120	30	20
GM20-6	100	160	30	20
GM20-8	140	200	30	20
GM20-10	180	240	30	20
GM20-12	220	280	30	20
GM20-16	300	360	30	20
GM20-20	380	440	30	20
GM20-24	460	520	30	20
GM20-32	620	680	30	20
GM20-40	780	840	30	20
GM20-56	1100	1160	30	20
GM20-64	1260	1320	30	20

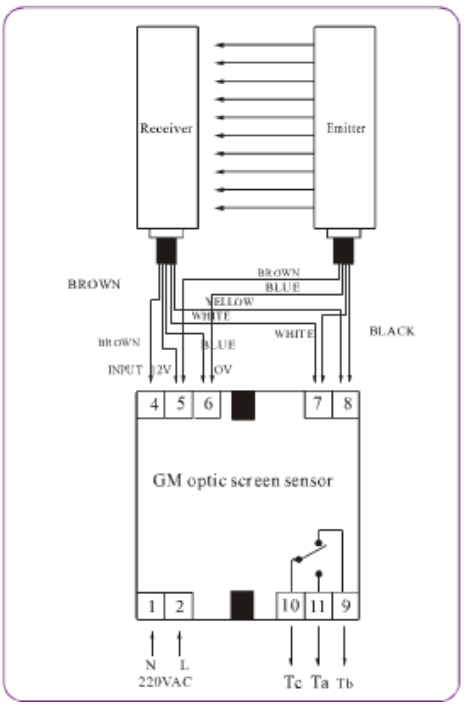
■ Connector schematic

●Projector



● Light receiver





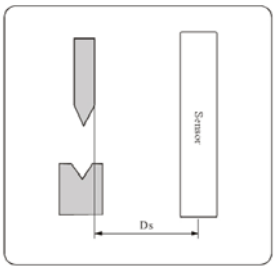
■ GM optic screen sensor

GMK light screen control	light receiver cable	Projector Cable
1: 220VAC（N）Input		
2: 220VAC（L）Input		
3: empty pin		
4:input of light screen signal（IN）		
5： Anode	（1）BROWN	（1）BROWN
6： Cathode	（2）BLUE	（2）BLUE
7：SY	（3）WHITE	（3）WHITE
8：R	（4）BLACK	（4）BLACK
9： relay NC point		
10: relay common point		
11: relay NO point		

■ User correctly

●Min. safe installation distance of light screen Ds

Ds=KX(Ts+Tc+Tt+Tbm)+Ddf



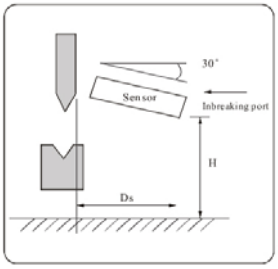
Ds: Min. safe installation distance of light screen denotes the shortest distance from detection area of light screen to danger area in manual speed is usually set at 1.M.

K: ms. In practical example, it denotes speed of operator's hand moving to work point from normal start state.

Ts: Time for machine to stop depressing state.

Tc: Time from control to braking reaction of machine in S

●Min. safe distance for horizontally installing light screen: Ds



Tt: Time for the light screen to react in S.

Tbm: Time that the brake needs in S.Ddf

Ds=KX(Ts+Tc+Tt+Tbm)+DH

Dh=1.2m-(0.4×H),Min DH=0.8m

H: Min. distance from light screen detection area to ground in m.

Note: Horizontal installation angle of light screen shall be less than 30°.

■Notes:

GM series light screen is only for indoor use.

Light screen, high voltage wire and power line shall be connected or piped separately, to avoid wrong action due to high electric detection induction.

To avoid occasions such as full of corrosive gas, too much dust, severe vibration, directly sprayed by water, oil or medicament or direct sunlight.

No separate notice for change of the information in the future.

●light screen

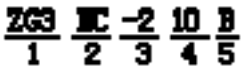
After installation, shut off the center, bottom, edge and top of detection area of the light screen with the object, and meanwhile detect that whether the output state of light screen is normal.

1、DESCRIPTOPN

Solid state relay is called “SSR” for. ZG3 series product made by our factory is the latest non-contact electronic switch device with good ON-OFF performance. Its input end only requires tinny control current and can be compatible with integrated circuit of TT land CMOS, etc. The output return circuit adopts two way controlled silicon or big powder transistor to cut on or cut off the loading current. The photoelectric coupler is adopted between the input and output.

Because solid state relay is a non-contact switch element made up of solid state elements. Compared with electromagnetic relay, it is more reliable. It has series advantages, such as long service life, little disturbance to surrounding and strong anti-interference performance, etc. it has wide application fields. And it tends to replace the traditional electromagnetic relay and further expands to the fields which traditional electromagnetic relay is not applicable for, like input/out0put interface of computer and program control, electric stove heating constant temperature equipment, digital control machine, remote control system., industrial automatic device, signal lamp, traffic lamp, stage lighting control equipment, instrument and meter, medical equipment, duplicator, color enlarger, and rubber ＆ plastic machine, etc. in some special devices which require damp proof, fireproof and anti-corrosion, and under bad working environment, SSR has incomparable superiority in comparison with tradition with tradition electromagnetic relay. It is an ideal product to replace the older generations of products in relay family (EMR).

二、Model explanation of solid state relay and solid state voltage regulator

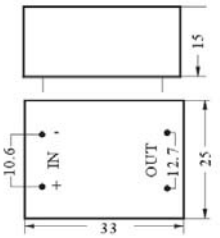
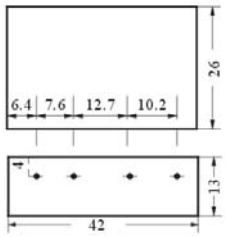
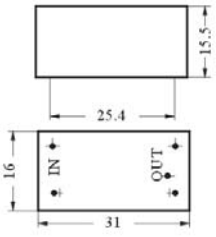


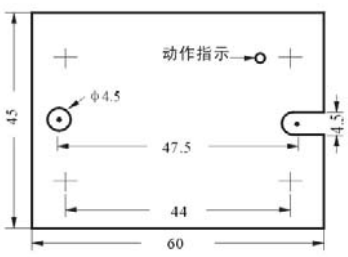
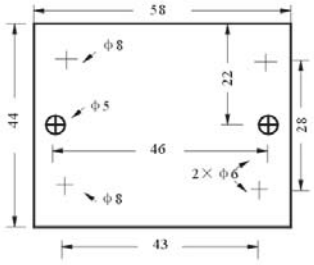
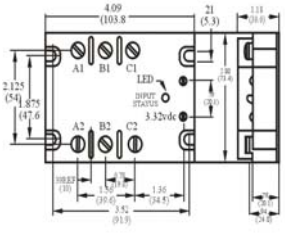
No.	Composition	Code and definition
1	Basic	ZG3： solid state relay ZG1： solid state voltage regulator ZG33： three phase solid state relay
2	Outward appearance code	NA、NC、M、T...
3	Load voltage	2：30-240VAC 3：90-480VAC 4：24VDC 5：50VDC
4	Load current	03：3A 10：10A 40：40A
5	Input voltage	B：3-23VDC A：90-250VAC C：560KΩ/2W potentiometer potentiometer D: 0-8.8VDC

Application installation for reference	
Color enlarger, developing & printing equipment, injection machine and air conditioning temp control.	Computer embroidering machine, bank note counter and post sorting machine
All kinds of packing machines	Mine explosion-proof and damp-proof electric equipment
Digital control and power control of all kinds of machine tools	Neon lamp, stage light automatic control system
Drive of all kinds of motors(reversible turn control)	Radio specific equipment, refrigerator and full automatic washing machine
Automatic instrument meter	Power port of computer
Industrial automation control; industry photograph and stove cellar automation	Automatic office machine
AC motor control	Intermediate relay and electromagnetic valve control
Copier	Signal light, transport lamp, flasher
Digital control machine, remoter control system	Industrial automation equipment

Cautions while using

1. Over-current and loading short circuit result in SSR permanent damage. Quick fuse is one of the over-current protection methods. Small capacity may also adopt fuse. Over-voltage protection adopts parallel connection metal oxide varistor (MOV) as well as RC absorbing return inside SSR. The area size of MOV determines the absorbing power. The thickness of MOV determines protective voltage value. Generally, 220V series SSR may choose varistor of 500-630 VDC, 380V series ＳＳＲ may choose varistor of 700-900VDC.
2. If ambient temperature is too high, the loading capacity of SSR will descend. If the ambient temperature is high or the heat radiation is bad, the chosen SSR should be kept a certain margin.
3. The resistance load should not surpass 60% of rated current. The inductance load should not surpass 40% of rated current.

Category		Small horizontal type	Small card type	Subminiature horizontal type
Type		ZG3T	ZG3M	ZG3V
Outline and dimension(mm)		 33×25×16	 42×26×13	 31×16×15.5
Function		SSR Many kinds of input standards SSR		
Output	Insulation	Photoelectrical two-way controlled silicon		
	Load Voltage	30~240VAC/90~480VAC/12-65VDC		
	Load Current	1~3A	1~8A	1~3A
	Leakage current	5mA		
	VoRmVceo(V)	500		
	di/dt(A/us)	100		
	dv/dt(v/us)	100		
	$I^2t(A^2s)$	18		
	Max.TJ(C)	90		
Input	Input Voltage	3-24VDC/3-36VDC		
	Input Current	<40mA		
	Off Voltage	1VDC		
	On Voltage	3VDC		
	Off time	0.5ms DC/10msAC		
	On time	0.5ms DC/10msAC		
Dielectric strength		50Hz, 60S 2500VAC		
Ambient temperature		-30℃~80℃(Under non-ice/dewfall condition)		
Coefficient of safety of working current		Dissipative load is 60%/Inductive load is 40%		
Wiring installation diagram				

Category		Plane installment type		3-phase AC solid state relay
Type		SSR	ZG3NC	ZG33
Outline and dimension（mm）		 60×45×24	 58×44×32	 31×16×15.5
Function		SSR Many kinds of input standards SSR With operation display		
Output	Insulation	Photoelectrical coupler		
	Load Voltage	30~240VAC/90~480VAC/12-65VDC		
	Load Current	10~40A	1~120A	
	Leakage current	100VAC 5mA 200VAC 10mA		
	VoRmVceo(V)	1000		
	di/dt(A/us)	200		
	dv/dt(v/us)	400		
	$I^2t(A^2s)$	25-3000(Bigger current, bigger consumption)		
	Tj(℃)	100		
Input	Input Voltage	3-32VDC/90-250VAC		
	Input Current	<40mA		
	Off	1VDC		
	On Voltage	3VDC		
	Off time	0.5ms DC/10msAC		
	On time	0.5ms DC/10msAC		
Dielectric strength		50Hz，60S 2500VAC		
Ambient temperature		-30℃~80℃(Under non-ice/dewfall condition)		
Coefficient of safety of working current		Dissipative load is 60%/Inductive load is 40%		
Wiring installation diagram				

15W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

99X97X35mm

AC input voltage range ..... 85~132VAC / 170~264VAC selectable by switch
AC inrush current ..... Cold start, 15A at 115VAC, 30A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% fold back current limiting, auto-recovery
Setup, rise, hold up time ..... 200ms, 100ms, 30ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... 0~50OC@100%, -10OC@80%, 60OC@60% load
Safety standards ..... Design refer to UL1012
EMC standards ..... Design refer to FCC part 15 J
Connection ..... 5P / 9.5mm pitch terminal block
Packing ..... 0.31 kg ; 45pcs / 15.0kg / 0.90CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50001	S-15-5	5V, 0~3.0A	±2%	50mV	65%
50002	S-15-12	12V, 0~1.3A	±1 %	50mV	68%
50003	S-15-24	24V, 0~0.7A	±1 %	100mV	72%

25W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

99X97X35mm

AC input voltage range ..... 85~264VAC; 120~370VDC
AC inrush current ..... Cold start, 13A at 115VAC, 25A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% hiccup mode, auto-recovery
Over voltage protection ..... 115%~135% rated output voltage
Setup, rise, hold up time ..... 300ms, 50ms, 90ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3.0KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... 0~50¡ãC@100%, -10¡ãC@80%, 60¡ãC@60% load
Safety standards ..... UL1012, TUV EN60950-1 approved
EMC standards ..... EN55022 class B, EN61000-3-2,3 EN61000-4-2,3,4,5, ENV50204
Connection ..... 5P/ 9.5mm pitch terminal block
Packing ..... 0.39kg ; 45pcs / 18.0kg / 0.90CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50011	S-25-5	5V,0~5.0A	±2%	50mV	72%
50012	S-25-12	12V,0~2.1A	±1%	100mV	76%
50013	S-25-15	15V,0~1.7A	±1%	100mV	77%
50014	S-25-24	24V,0~1.1A	±1%	100mV	80%

35W Single Output Switching Power upply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

99X97X35mm

AC input voltage range ..... 85~132VAC / 170~264VAC selectable by switch
AC inrush current ..... Cold start, 18A at 115VAC, 36A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% fold back current limiting, auto-recovery
Setup, rise, hold up time ...200ms, 100ms, 30ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... -10~60℃ (refer to output derating curve)
Safety standards ..... Design refer to UL1012
EMC standards ..... Design refer to FCC part 15 J
Connection ..... 5P / 9.5mm pitch terminal block
Packing ..... 0.41 kg ; 30pcs / 13.4kg / 0.86CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50021	S-35-5	5V, 0~7.0A	¡À2%	75mV	70%
50022	S-35-12	12V, 0~3.0A	¡À1%	100mV	76%
50023	S-35-15	15V, 0~2.4A	¡À1%	100mV	78%
50024	S-35-24	24V, 0~1.5A	¡À1%	100mV	78%

40W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

129X98X38mm

AC input voltage range ..... 85~264VAC; 120~370VDC
AC inrush current ..... Cold start, 25A at 115VAC, 25A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% hiccup mode, auto-recovery
Over voltage protection ..... 115%~135% rated output voltage
Setup, rise, hold up time ..... 300ms, 50ms, 70ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3.0KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... 0~50¡ãC@100%, -10¡ãC@80%, 60¡ãC@60% load
Safety standards ..... UL1012, UL60950-1, TUV EN60950-1 approved
EMC standards ..... EN55022 class B, EN61000-3-2,3 EN61000-4-2,3,4,5, ENV50204
Connection ..... 5P/ 9.5mm pitch terminal block
Packing ..... 0.44kg ; 30pcs / 13.9kg / 0.86CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50031	S-40-5	5V,0¡«8.0A	±2%	75mV	72%
50032	S-40-12	12V,0¡«3.5A	±1%	100mV	76%
50033	S-40-15	15V£¬0¡«2.8A	±1%	100mV	76%
50034	S-40-24	24V£¬0¡«1.8A	±1%	100mV	78%

50W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

159X97X38mm

AC input voltage range ..... 85~132VAC / 170~264VAC selectable by switch

AC inrush current ..... Cold start, 18A at 115VAC, 36A at 230VAC

DC adjustment range ..... ¡À10% rated output voltage

Overload protection ..... 105%~150% fold back current limiting, auto-recovery

Setup, rise, hold up time ..200ms, 100ms, 20ms at full load and 230VAC

Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute

Working temperature ..... 0~50°C@100%, -10°C@80%, 60°C@60% load

Safety standards ..... Design refer to UL1012

EMC standards ..... Design refer to FCC part 15 J

Connection ..... 5P / 9.5mm pitch terminal block

Packing ..... 0.51 kg ; 24pcs / 13.1 kg / 0.70CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50041	S-50-5	5V,0~10A	±2%	75mV	71%
50042	S-50-12	12V,0~4.2A	±1 %	100mV	78%
50043	S-50-15	15V.0~3.4A	±1 %	100mV	78%
50044	S-50-24	24V,0~2.1A	±1 %	100mV	82%

60W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

159X97X38mm

AC input voltage range ..... 85~264VAC; 120~370VDC
AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% hiccup mode, auto-recovery
Over voltage protection ..... 115%~135% rated output voltage
Setup, rise, hold up time ..... 300ms, 50ms, 90ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3.0KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... 0~45^{O}C@100%, -10^{O}C@80%, 60^{O}C@60% load
Safety standards ..... UL1012, UL60950-1, TUV EN60950-1 approved
EMC standards ..... EN55022 class B, EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11, ENV50204
Connection ..... 5P/ 9.5mm pitch terminal block
Packing ..... 0.51 kg ; 24pcs / 13.1 kg / 0.70CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50051	S-60-5	5V,0~12A	±2%	120mV	73%
50052	S-60-12	12V,0~5.0A	±1%	120mV	76%
50053	S-60-15	15V£¬0~4.0A	±1%	150mV	77%
50054	S-60-24	24V£¬0~2.5A	±1%	150mV	79%

75W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

159X97X38mm

AC input voltage range ..... 85~264VAC; 120~370VDC
AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% hiccup mode, auto-recovery
Over voltage protection ..... 115%~135% rated output voltage
Setup, rise, hold up time ..... 300ms, 50ms, 90ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3.0KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... 0~45^{O}C@100%, -10^{O}C@80%, 60^{O}C@60% load
Safety standards ..... UL1012, UL60950-1, TUV EN60950-1 approved
EMC standards ..... EN55022 class B, EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11, ENV50204
Connection ..... 5P/ 9.5mm pitch terminal block
Packing ..... 0.51 kg ; 24pcs / 13.1 kg / 0.70CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50061	S-75-5	5V,0~15A	±2%	80mV	72%
50062	S-75-12	12V,0~6.3A	±2%	80mV	77%
50063	S-75-15	15V£¬0~5.0A	±2%	80mV	79%
50064	S-75-24	24V£¬0~3.2A	±1%	100mV	80%

100W Single Output Switching Power Supply

• AC input range selectable by switch
• Protections: Short circuit/ Overload
• Cooling by free air convection
• 100% full load burn-in test
• Low cost, hogh reliability
• 1 year warranty

199X98X38mm

AC input voltage range ..... 85~132VAC / 180~264VAC selectable by switch
AC inrush current ..... Cold start, 30A at 115VAC, 60A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% shut off, AC recycle to re-start (S-100-7.5: 150%~200%)
Setup, rise, hold up time .. 200ms, 80ms, 20ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... -10~60^{O}C (refer to output derating curve)
Safety standards ..... Design refer to UL1012
EMC standards ..... Design refer to FCC part 15 J
Connection ..... 7P / 9.5mm pitch terminal block
Packing ..... 0.62kg ; 20pcs / 13.6kg / 0.8CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50061	S-100-3	3V, 0~20A	±2%	100mV	70%
50062	S-100-5	5V, 0~20A	±2%	100mV	78%
50063	S-100-7.5	7.5V, 0~13.6A	±1 %	100mV	80%
50064	S-100-10	10V, 0~10A	±1 %	100mV	80%
50065	S-100-12	12V, 0~8.5A	±1 %	100mV	81%
50066	S-100-15	15V, 0~6.7A	±1 %	100mV	81%
50070	S-100-18	18V, 0~5.6A	±1 %	100mV	82%
50067	S-100-24	24V, 0~4.5A	±1 %	100mV	84%
50068	S-100-27	27V, 0~3.7A	±1 %	100mV	84%
50069	S-100-48	48V, 0~2.0A	±1 %	100mV	84%

120W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

199X98X38mm

AC input voltage range ..... 85~132VAC / 180~264VAC selectable by switch
AC inrush current ..... Cold start, 30A at 115VAC, 60A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~150% shut off, AC recycle to re-start (S-100-7.5: 150%~200%)
Setup, rise, hold up time .. 200ms, 80ms, 20ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... -10~60^{O}C (refer to output derating curve)
Safety standards ..... Design refer to UL1012
EMC standards ..... Design refer to FCC part 15 J
Connection ..... 7P / 9.5mm pitch terminal block
Packing ..... 0.62kg ; 20pcs / 13.6kg / 0.8CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50061	S-120-3	3V, 0~20A	±2%	100mV	70%
50062	S-120-5	5V, 0~20A	±2%	100mV	78%
50063	S-120-7.5	7.5V,0~13.6A	±1 %	100mV	80%
50064	S-120-10	10V,0~10A	±1 %	100mV	80%
50065	S-120-12	12V,0~8.5A	±1 %	100mV	81%
50066	S-120-15	15V,0~6.7A	±1 %	100mV	81%
50070	S-120-18	18V,0~5.6A	±1 %	100mV	82%
50067	S-120-24	24V,0~4.5A	±1 %	100mV	84%
50068	S-120-27	27V,0~3.7A	±1 %	100mV	84%
50069	S-120-48	48V,0~2.0A	±1 %	100mV	84%

145W Single Output Switching Power Supply

• AC input range selectable by switch
• Protections: Short circuit/ Overload
• Cooling by free air convection
• 100% full load burn-in test
• Low cost, hogh reliability
• 1 year warranty

199X98X38mm

AC input voltage range ..... 88~132VAC / 176~264VAC selectable by switch
AC inrush current ..... Cold start, 35A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 125%~165% shut off, AC recycle to re-start
Over voltage protection ..... 112%~135% rated output voltage
Setup, rise, hold up time ..... 100ms, 50ms, 20ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... -10~60^{O}C (refer to output derating curve)
Safety standards ..... Design refer to UL1012
EMC standards ..... Design refer to EN55022, IEC801-2,3,4
Connection ..... 7P/ 9.5mm pitch terminal block
Packing ..... 0.71 kg ; 30pcs / 22.5kg / 1.22CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50072	S-145-5	5V, 0~25A	±2%	120mV	72%
50073	S-145-7.5	7.5V, 0~18A	±2%	120mV	74%
50074	S-145-12	12V, 0~12A	±2%	120mV	77%
50075	S-145-13.3	13.5V, 0~10.7A	±2%	120mV	78%
50076	S-145-15	15V, 0~9.6A	±2%	80mV	79%
50077	S-145-24	24V, 0~6.0A	±1%	150mV	80%
50078	S-145-27	27V, 0~5.4A	±1%	150mV	80%
50079	S-145-48	48V, 0~3.0A	±1%	150mV	80%

150W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

199X110X50mm

AC input voltage range..... 88~132VAC / 176~264VAC selectable by switch
DC adjustment range..... ¡À10% rated output voltage
Overload protection..... 105%~150% shut off, AC recycle to re-start
Over voltage protection..... 115%~145% rated output voltage
Setup, rise, hold up time..... 100ms, 50ms, 28ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature..... -10~60^{O}C(refer to output derating curve)
Safety standards ..... UL1012, UL60950-1, TUV EN60950-1 approved
EMC standards ..... EN55022 class B, EN61000-3-2,-3 EN61000-4-2,3,4,5,6,8,11, ENV50204
Connection ..... 7P/ 9.5mm pitch terminal block
Packing ..... 0.8kg ; 16pcs / 13.8kg / 0.95CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50081	S-150-5	5V, 0~30.0A	±2%	150mV	78%
50082	S-150-7.5	7.5V, 0~20.0A	±1%	150mV	80%
50083	S-150-9	9V, 0~16.7A	±1%	180mV	80%
50084	S-150-12	12V, 0~12.5A	±1%	180mV	82%
50088	S-150-13.5	13.5V, 0~11.2A	±1%	180mV	83%
50085	S-150-15	15V, 0~10.0A	±1%	180mV	84%
50086	S-150-24	24V, 0~6.5A	±1%	240mV	85%
50089	S-150-27	27V, 0~5.6A	±1%	240mV	86%
50087	S-150-48	48V, 0~3.2A	±1%	240mV	87%

200W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

150X140X86mm

AC input voltage range..... 90~132VAC / 176~264VAC selectable by switch
AC inrush current ..... Cold start, 45A at 230VAC
DC adjustment range..... ¡À10% rated output voltage
Overload protection..... 105%~135% hiccup mode, auto-recovery
Setup, rise, hold up time..... 800ms, 50ms, 19ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3.0KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature..... -10~50^{O}C@100%, 60^{O}C@60% load
Safety standards ..... UL60950-1 approved
EMC standards ..... Design refer to EN55022 class B
Connection ..... 9P/ 9.5mm pitch terminal block with cover
Packing ..... 1.3kg ; 8pcs / 11.0kg / 0.97CUFT

StockNo.	ModelNo.	OUTPUT	Tol.	R&N	Effi.
50401	S-200-5	5V, 0~40.0A	±2%	80mV	74%
50402	S-200-12	12V, 0~16.7A	±1%	120mV	79%
50403	S-200-15	15V, 0~14.3A	±1%	120mV	80%
50404	S-200-24	24V, 0~8.4A	±1%	120mV	81%
50405	S-200-27	27V£¬0~7.5A	±1%	150mV	82%
50406	S-200-48	48V£¬0~4.2A	±1%	200mV	82%

201W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

215X115X50mm

AC input voltage range ..... 90~132VAC / 180~264VAC selectable by switch
AC inrush current ..... Cold start, 25A at 115VAC, 50A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~135% hiccup mode, auto-recovery
Over voltage protection ..... 115%~145% rated output voltage
Setup, rise, hold up time ..... 200ms, 100ms, 20ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... -10~50^{O}C (refer to output derating curve)
Safety standards ..... Design refer to UL1950
EMC standards ..... Design refer to FCC part 15 J
Connection ..... 9P/ 9.5mm pitch terminal block
Packing ..... 0.93kg ; 12pcs / 12.0kg / 0.92CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50411	S-201-5	5V, 0~40.0A	±2%	150mV	74%
50412	S-201-7.5	7.5V,0~26.5A	±2%	150mV	79%
50413	S-201-12	12V.0~16.5A	±1%	150mV	80%
50414	S-201-13.5	13.5V,0~14.7A	±1%	150mV	80%
50415	S-201-15	15V,0~13.0A	±1%	150mV	81%
50416	S-201-24	24V,0~8.30A	±1%	150mV	83%
50417	S-201-27	27V,0~7.40A	±1%	200mV	83%
50418	S-201-48	48V,0~4.20A	±1%	240mV	84%

240W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

199X93X65mm

AC input voltage range..... 88~132VAC / 176~264VAC auto-sensing
AC inrush current ..... Cold start, 15A at 115VAC, 30A at 230VAC
DC adjustment range..... ¡À10% rated output voltage
Overload protection ..... 105%~135% hiccup mode, auto-recovery
Over voltage protection..... 115%~150% rated output voltage
Setup, rise, hold up time..... 1000ms, 20ms, 36ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature..... 0-50^{O}C@100%, -10^{O}C@80%, 60^{O}C@60% load
Safety standards ..... UL60950-1, TUV EN60950-1 approved (7.5V design refer to EN60950-1)
EMC standards ..... EN55022 class B, EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11, ENV50204
Connection ..... 7P/ 9.5mm pitch terminal block with cover
Packing ..... 1.2kg ; 12pcs / 15.3kg / 0.78CUFT

StockNo.	ModelNo.	Output	Tol.	R&N	Effi.
50101	S-240-5	5V,0~40A	±2%	150mV	78%
50102	S-240-7.5	7.5V,0~30A	±2%	200mV	80%
50103	S-240-12	12V,0~18A	±1%	150mV	82%
50104	S-240-15	15V,0~15A	±1%	150mV	83%
50105	S-240-24	24V,0~10A	±1%	180mV	84%
50106	S-240-30	30V,0~8.0A	±1%	180mV	85%
50107	S-240-48	48V,0~5.0A	±1%	240mV	87%

250W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

150X140X86mm

AC input voltage range..... 90~132VAC / 176~264VAC selectable by switch
AC inrush current ..... Cold start, 45A at 230VAC
DC adjustment range..... ¡À10% rated output voltage
Overload protection..... 105%~135% hiccup mode, auto-recovery
Setup, rise, hold up time..... 800ms, 50ms, 19ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3.0KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature..... -10~50^{O}C@100%, 60^{O}C@60% load
Safety standards ..... UL60950-1 approved
EMC standards ..... Design refer to EN55022 class B
Connection ..... 9P/ 9.5mm pitch terminal block with cover
Packing ..... 1.3kg ; 8pcs / 11.0kg / 0.97CUFT

StockNo.	ModelNo.	OUTPUT	Tol.	R&N	Effi.
50651	S-250-5	5V, 0~40.0A	±2%	80mV	74%
50652	S-250-12	12V, 0~18A	±1%	120mV	79%
50653	S-250-15	15V, 0~15A	±1%	120mV	80%
50654	S-250-24	24V, 0~10A	±1%	120mV	81%
50655	S-250-27	27V£¬0~9. 4A	±1%	150mV	82%
50656	S-250-48	48V£¬0~5. 2A	±1%	200mV	82%

300W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

215X115X50mm

AC input voltage range ..... 90~132VAC / 180~264VAC selectable by switch
AC inrush current ..... Cold start, 25A at 115VAC, 50A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~135% hiccup mode, auto-recovery
Setup, rise, hold up time ..... 200ms, 50ms, 20ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:1.5KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... -10~60^{O}C (refer to output derating curve)
Safety standards ..... Design refer to UL1950
EMC standards ..... Design refer to FCC part 15 J
Connection ..... 9P/ 9.5mm pitch terminal block
Packing ..... 1.07kg ; 12pcs / 13.5kg / 0.92CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50150	S-300-5	5V,0~50.0A	±2%	150mV	73%
50151	S-300-7.5	7.5V,0~40.0A	±2%	150mV	76%
50152	S-300-12	12V,0~29.0A	±1%	150mV	79%
50153	S-300-13.5	13.5V,0~25.8A	±1%	150mV	79%
50154	S-300-15	15V,0~23.2A	±1%	150mV	80%
50155	S-300-24	24V,0~14.6A	±1%	150mV	81%
50156	S-300-27	27V,0~13.0A	±1%	200mV	82%
50157	S-300-48	48V,0~7.3A	±1%	240mV	83%

320W Single Output Switching Power Supply

- AC input range selectable by switch
- Protections: Short circuit/ Overload
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, hogh reliability
- 1 year warranty

215X115X50mm

AC input voltage range ..... 88~132VAC / 176~264VAC selectable by switch
AC inrush current ..... Cold start, 18A at 115VAC, 36A at 230VAC
DC adjustment range ..... ¡À10% rated output voltage
Overload protection ..... 105%~135% hiccup mode, auto-recovery
Over voltage protection ..... 115%~145% rated output voltage
Setup, rise, hold up time ..... 2000ms, 20ms, 24ms at full load and 230VAC
Withstand voltage ..... I/P-O/P:3.0KVAC, I/P-FG:1.5KVAC, 1 minute
Working temperature ..... 0-40OC@100%, -10^{O}C@80%, 60^{O}C@60% load (24~48V 0-50^{O}C@100%, 60^{O}C@60% load)
Safety standards ..... UL60950-1 approved
Connection ..... 9P/ 9.5mm pitch terminal block with cover
Packing ..... 1.08kg ; 12pcs / 13.8kg / 0.92CUFT

Stock No.	Model No.	Output	Tol.	R&N	Effi.
50111	S-320-5	5V, 0~50.0A	±2%	150mV	77%
50112	S-320-7.5	7.5V, 0~36.0A	±2%	150mV	80%
50113	S-320-12	12V, 0~25.0A	±1%	150mV	82%
50114	S-320-13.5	13.5V, 0~22.0A	±1%	150mV	83%
50115	S-320-15	15V£¬0~20.0A	±1%	150mV	84%
50116	S-320-24	24V£¬0~12.5A	±1%	150mV	86%
50117	S-320-27	27V£¬0~11.0A	±1%	200mV	86%
50118	S-320-48	48V£¬0~6.5A	±1%	240mV	87%