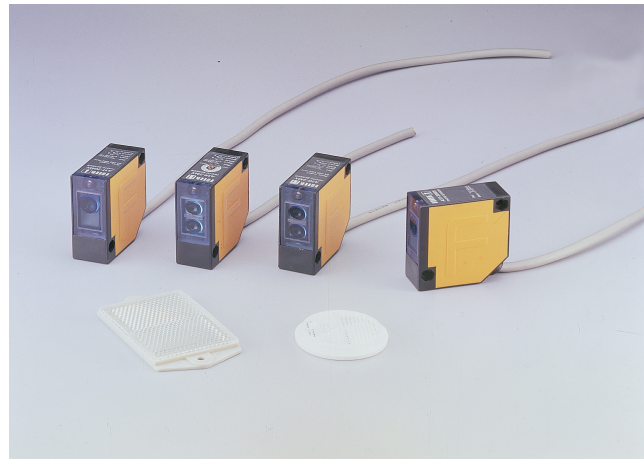


- ※ Extensive operating voltage  
12VDC or 20 ~ 260VAC/ VDC
- ※ High capacity relay output 3A/250VAC
- ※ High compact structure IP-65
- ※ Multi surge killer circuit effectively protects from surge damage
- ※ B type ( Normal close type )  
have no stock maybe ,  
accepted order to manufacture  
Model : A3R-30XB , A3R-1MXB , A3R-2MXB  
A3G-2MRB , A3G-4MXB  
A3T-10MXB , A3T-20MXB
- ※ Polarityzd Mirror Relylexyre  
(A3G-4MRE)Reflex type available



## General Specification

Specification	Data
Operating Voltage	<b>20 ~ 260V DC/AC, 12VDC Customization, 50/60Hz</b>
Current Consumption	2VA max.
Output Method	Relay
Contact Current	5A/250 VAC
Response Time	15ms
Illumination	Lamplight < 10,000 Lux. ; Sunlight < 30,000 Lux.
Connection Method	5 Cores / 6.0 φ X 2m
Noise Resistance	1500Vp - p/1 μS
Surge Resistance	2 KV/1 μ S
Vibration Resistance	10~55Hz / 1.5mm , 2 Hour In X.Y.Z. Direction
Housing Material	Case : Intensive ABS ; Lens : PC
Operating Temp./Hum.	-20 C ~ +60 C ; 35% ~ 85% RH
Connection Diagram	<p>Connection diagram</p> <p>Red (Brown) — [20~260V DC/AC]          Black (Blue) — [12VDC Customization]          White (Black) NO          Brown (White) COM          Yellow (Grey) NC</p>

## Reflex Type

Type	Standard Type			Water-Proof Type		
Model	A3R-30X	A3R-1MX	A3R-2MX	A3R-30XP	A3R-1MXP	A3R-2MXP
Sensing Distance	30cm	100cm	200cm	30cm	100cm	200cm
Protection Class	IP-65			IP-67		
Operating Voltage	20 ~ 260V DC/AC, 12VDC Customization, 50/60Hz					
Output Method	Relay					
Output Status	NO. <Received ON >					
Sensitivity Adjuster	270° Trimmer					
Emitter	Infrared LED					
Min. Sensible Object	5.0 φ					
Weight	Appr.145g			Appr.155g		

## Mirror Reflex Type

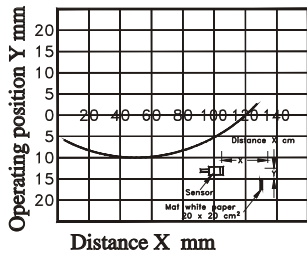
Type	Standard Type				Water-Proof Type	
Model	A3G-2MR	A3G-2MRS	A3G-4MRE	A3G-4MX	A3G-2MRP	A3G-4MXP
Sensing Distance	3m	2m	4m	4m	3m	4m
Emitter	Red LED	Red LED	Red LED	Infrared LED	Red LED	Infrared LED
Sensing Adjuster	Trimmer	Without			Trimmer	Without
Protect Class	IP-65				IP-67	
Operating Voltage	20 ~ 260V DC/AC, 12VDC Customization, 50/60Hz					
Output Method	Relay					
Output Status	NO. < Break ON >					
Min. Sensible Object	2.0 φ	5.0 φ		2.0 φ	5.0 φ	
Weight	Appr.145g				Appr.155g	

## Thru Beam Type

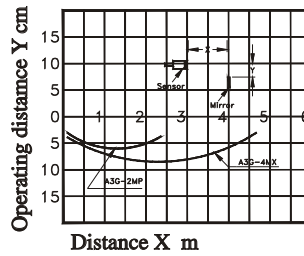
Type	Standard Type			Water-Proof Type		
Model	A3T-3MX	A3T-10MX	A3T-20MX	A3T-3MXP	A3T-10MXP	A3T-20MXP
Sensing Distance	3m	10m	20m	3m	10m	20m
Protection Class	IP-65			IP-67		
Operating Voltage	20 ~ 260V DC/AC, 12VDC Customization, 50/60Hz					
Output Method	Relay					
Output Status	NO. < Break ON >					
Emitter	Infrared LED					
Sensitivity Adjuster	Without					
Min. Sensible Object	2.0 φ	5.0 φ	10.0 φ	2.0 φ	5.0 φ	10.0 φ
Weight	Appr.285g			Appr.305g		

## Characteristic Curve < Typical >

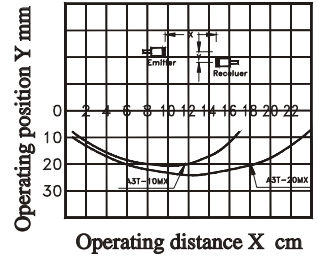
Diffuse Reflex type  
A3R-1MX  
Sensing area



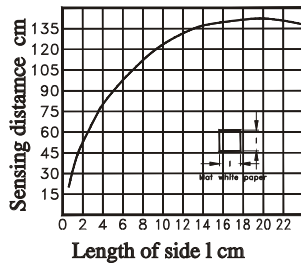
Mirror Reflex type  
A3G-2MR/A3G-4MX  
Setting range



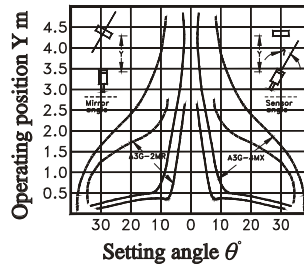
Thru Beam type  
A3T-10MX/A3T-20MX  
Setting range



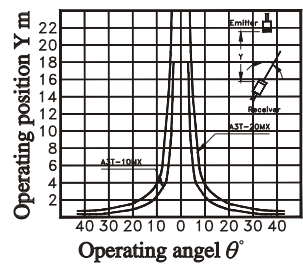
Sensing area



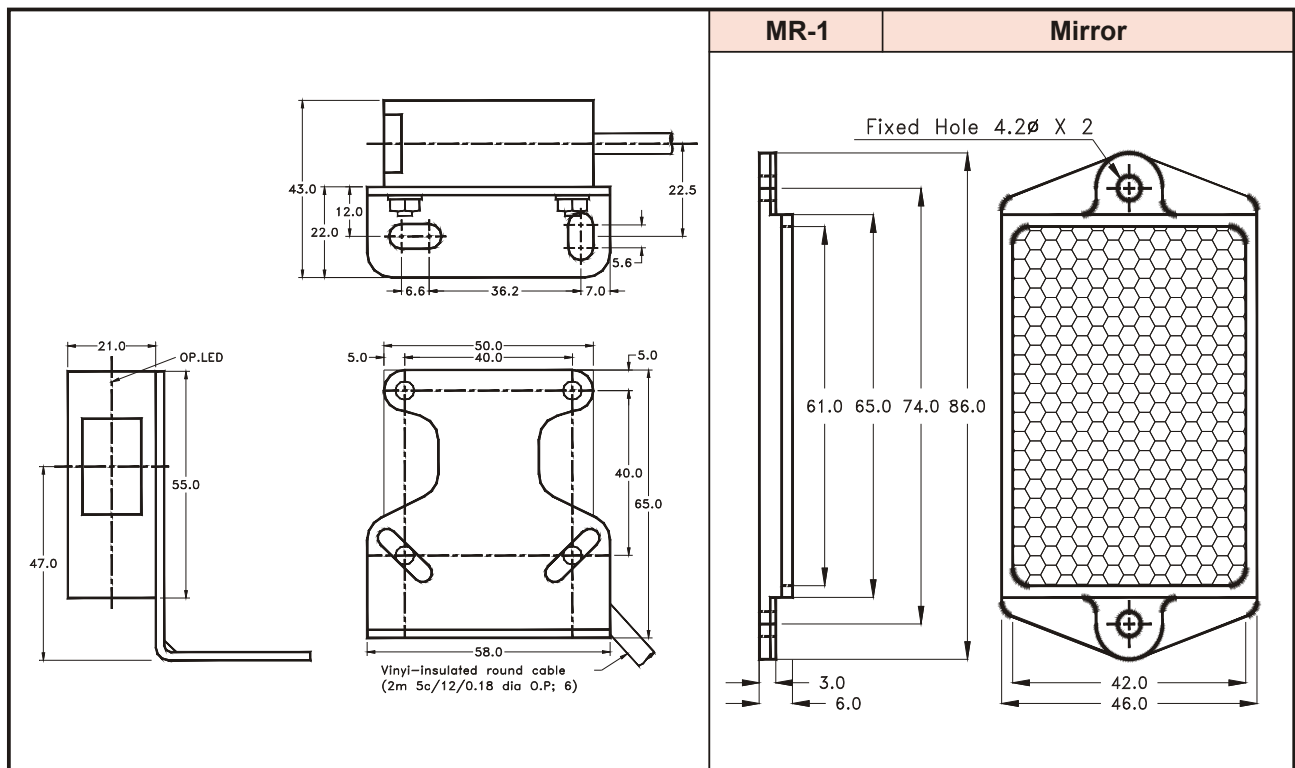
Setting angle



Setting angle



## Dimension



- ※ All type with sensitivity adjuster, easy to get the best sensing condition.
- ※ All DC type with NPN & PNP output, meet any control requirement.
- ※ All DC type having over load protection, and polarity reversed-Protection.
- ※ All AC type with surge protection, may avoided damaged.
- ※ Unique vertical type saving mounted space.
- ※ High solid compact structure, IP66 applied in poor circumstance suitable.



## Specification

Power Type	DC Type	AC Type
Operating Voltage	10 ~ 30 VDC , Ripple < 20% of Vp-p	90 ~ 250 VAC , 50/60 Hz
Output Method	NPN & PNP	SCR
Output Current	150mA max.	100mA max.
Residual Voltage	0.8V max.	
Leakage Current	0.8mA max.	2mA max.
Protection Circuit	Short Circuit & Polarity Reversed Protection	Surge Protection Circuit
Response Time	2ms	10ms
Sensitivity Adjuster	270° Trimmer	Non
Hysteresis	10% of Sensing Distance max.	
Illumination	Lamplight < 10,000 Lux. ; Sunlight < 30,000 Lux.	
Connection Method	Lead Wire : 4 Cores / 5.0φ X 2m	Lead Wire : 3 Cores / 4.2φ X 2m
	Plug : 4 Pins	Plug : 3 Pins
Housing Color	Grey	Blue
Housing Material	Intensive Polymid	
Operating Temp./Hum.	-20°C ~ +60°C ; 35% ~ 95% RH	
Protection Class	IP-66	
Weight		

## Reflex Type

Type	Model	Output Status	Sensing Direction	Sensing Distance	Operating Voltage	Current Consumption	Output Method	Sensitivity Adjuster
Lead Wire	CDR-10X	NO	Horizontal	10cm	10~30VDC	25mA max.	NPN & PNP 150mA max.	270° Trimmer
	CDR-10XB	NC						
	CDR-30X	NO		30cm				
	CDR-30XB	NC						
	CDR-30X-V	NO	Vertical	30cm				
	CDR-30XB-V	NC						
	CAR-10X	NO	Horizontal	10cm	90~250VAC 50/60Hz	0.5VA max.	SCR 100mA	270° Trimmer
	CAR-10XB	NC						
	CAR-10X-V	NO	Vertical	10cm				
	CAR-10XB-V	NC						
Connector	CDR-10X-M12	NO	Horizontal	10cm	10~30VDC	25mA max.	NPN & PNP 150mA max.	270° Trimmer
	CDR-10XB-M12	NC						
	CDR-30X-M12	NO	Horizontal	30cm				
	CDR-30XB-M12	NC						
	CDR-30X-V-M12	NO	Vertical	30cm				
	CDR-30XB-V-M12	NC						

## Mirror Reflex Type

Type	Model	Output Status	Sensing Direction	Sensing Distance	Operating Voltage	Current Consumption	Output Method	Sensitivity Adjuster				
Lead Wire	CDM-1MR	NO	Horizontal	0.1m~1.6m	10~30VDC	20mA max.	NPN & PNP 150mA max.	270° Trimmer				
	CDM-1MRB	NC										
	CDM-2MX	NO		0.1m~2.5m								
	CDM-2MXB	NC										
	CDM-2MX-V	NO	Vertical	0.1m~2.0m								
	CDM-2MXB-V	NC										
	CAM-2MX	NO	Horizontal	0.1m~2.0m	90~250VAC	0.5VA max.	SCR 100mA	270° Trimmer				
	CAM-2MXB	NC										
	CAM-2MX-V	NO	Vertical									
	CAM-2MXB-V	NC										
Connector	CDM-2MX-M12	NO	Horizontal	0.1m~2.5m					10~30VDC	20mA max.	NPN & PNP 150mA max.	270° Trimmer
	CDM-2MXB-M12	NC										
	CDM-2MX-V-M12	NO	Vertical	0.1m~2.0m								
	CDM-2MXB-V-M12	NC										

## Thru Beam Type

Type	Model	Output Status	Sensing Direction	Sensing Distance	Operating Voltage	Current Consumption	Output Method	Sensitivity Adjuster
Lead Wire	CDT-10MX	NO	Horizontal	10m	10~30VDC	P<20mA R<25mA	NPN & PNP 150mA	270° Trimmer
	CDT-10MXB	NC						
	CDT-6MX-V	NO	Vertical	6m				
	CDT-6MXB-V	NC						
Connector	CDT-10MX-M12	NO	Horizontal	10m	10~30VDC	P<20mA R<25mA	NPN & PNP 150mA	270° Trimmer
	CDT-10MXB-M12	NC						
	CDT-6MX-V-M12	NO	Vertical	6m				
	CDT-6MXB-V-M12	NC						

## Guiding of Model

Ex. **CDR-30X-B-V-M12**

① ② ③ ④ ⑤ ⑥

### ① Model

CDR=DC Reflex Type  
 CAR=AC Reflex Type  
 CDM=DC Mirror Reflex Type  
 CAM=AC Mirror Reflex Type  
 CDT=DC Thru Beam Type

### ② Sensing Distance

30=30cm  
 2M=2m  
 10M=10m

### ③ Light Source

X=Infrared LED  
 R=Red LED

### ④ Output Status

B=NC Type  
 Non=NO Type

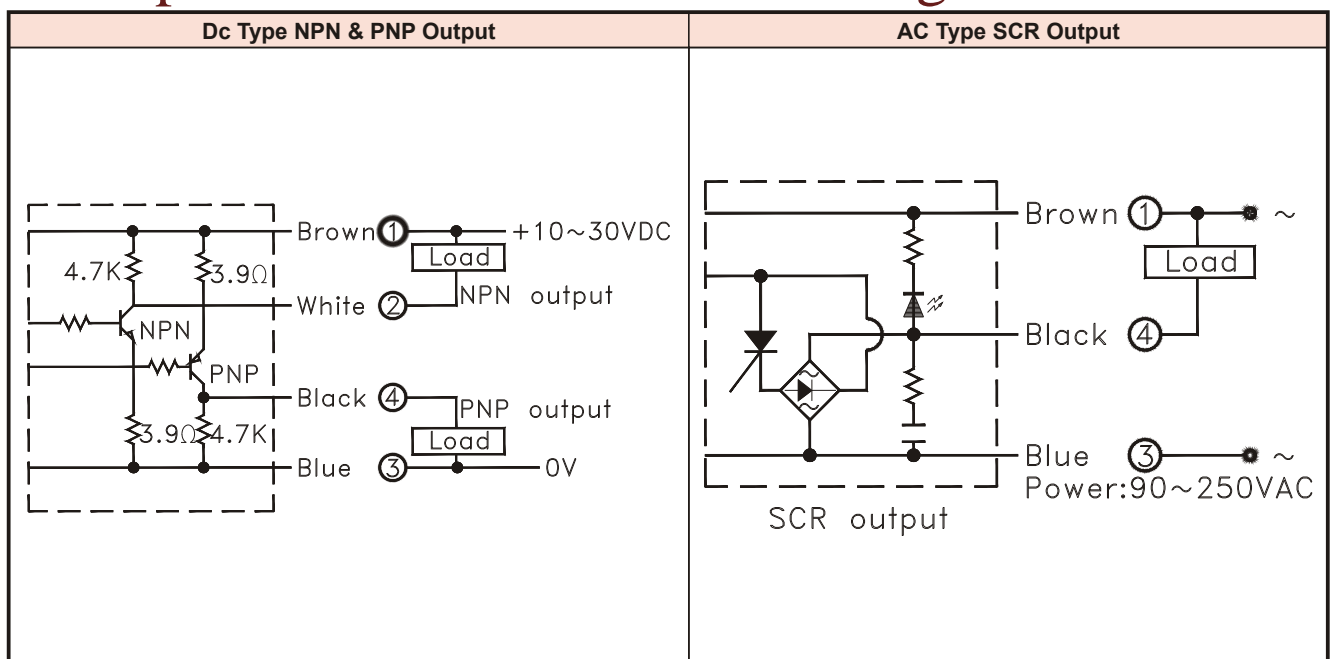
### ⑤ Sensing Direction

V=Vertical Type  
 Non=Horizontal Type

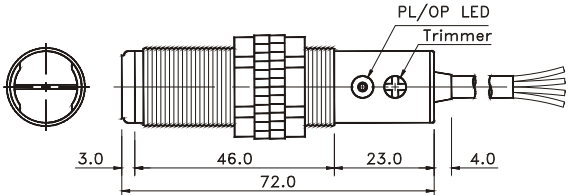
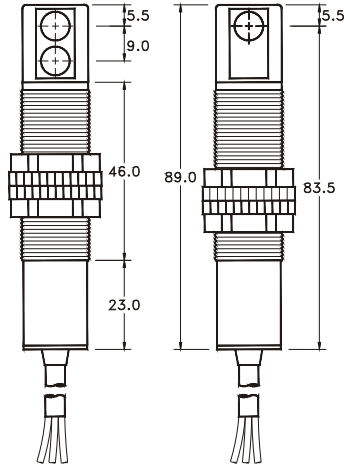
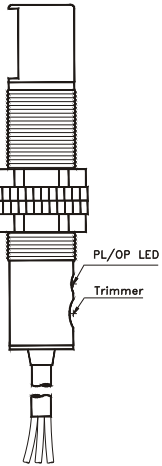
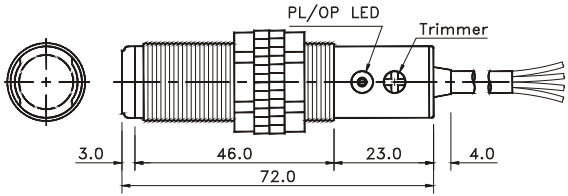
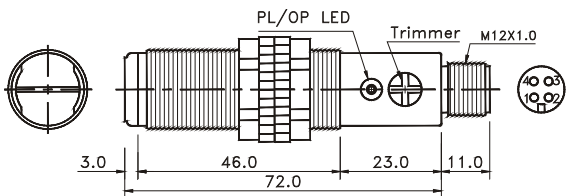
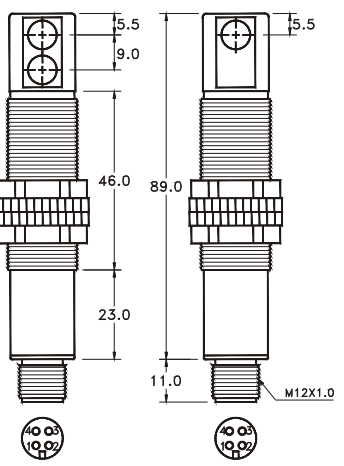
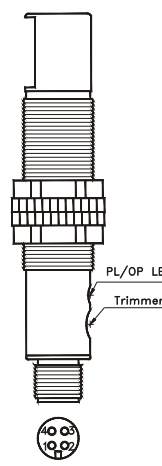
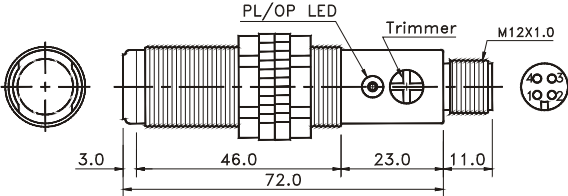
### ⑥ Connector Type

M12= M12x1.0

## Output Circuit & Connection Diagram



Dimension

Lead Wire Type	CDR/CAR/CDM/CAM	Lead Wire Type	Vertical Type
			
Lead Wire Type	CDT		
			
Connector Type	CDR-M12/CDM-M12	Connector Type	Vertical Type
			
Connector Type	CDT		
			
Mirror	MR-1	Mirror	MR-2
