

AC/DC Type
DC Type

DC Type

· VT-4000 ☐ · VT-3000 ☐ ☐

· VR-1000 ☐ · VR-800 ☐ ☐

· VD-130 ☐ · VD-100 ☐ ☐

· VD-300 ☐ · VD-250 ☐ ☐

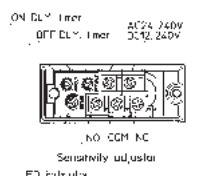
- Confirm if the item meets your needs.
- Before the use, you should first thoroughly read this manual and operate correctly as mentioned.
- You should keep this manual at hand for proper use.

		AC/DC type								DC type									
		Through Beam		Retro Reflection (with Polarizing filter)		Diffused Reflection		Diffused Reflection (Long Range type)		Through Beam		Retro Reflection (with Polarizing filter)		Diffused Reflection		Diffused Reflection (Long Range type)			
		without timer	with timer	without timer	with timer	without timer	with timer	without timer	with timer	without timer	with timer	without timer	with timer	without timer	with timer	without timer	with timer		
Type	Terminal	VT-4000	VT-4000T	VR-1000	VR-1000T	VD-130	VD-130T	VD-300	VD-300T		VT-3000N VT-3000P	VR-800N VR-800P	VD-100N VD-100P		VD-250N VD-250P				
	M12 connector	—	—	—	—	—	—	—	—		VT-3000CN VT-3000CP	VR-800CN VR-800CP	VD-100CN VD-100CP		VD-250CN VD-250CP				
Detecting distance		40m				10m		1.3m		3m		8m		1m		2.5m			
Supply Voltage		DC12~240V±10%								AC24~240V±10%								50/60Hz	
Power/Current Consumption		8.5VA		5VA						35mA max.									
Detecting Object		φ30mm		φ50mm		□20cm		□40cm		φ30mm		φ50mm		□20cm		□40cm			
Response Time		—				20ms max.				—				1.5ms max.				5ms max.	
Hysteresis		—				20% max.				—				20% max.					
Light Source		Red LED								IR LED		Red LED						IR LED	
Sensitivity Adjustment		1 rotation volume (240°)																	
Indicator		Output indicator (Orange) Power Indicator for Emitter (Red)																	
Timer function		—	ON/OFF Delay 0.1~10sec	—	ON/OFF Delay 0.1~10sec	—	ON/OFF Delay 0.1~10sec	—	ON/OFF Delay 0.1~10sec	—									
Operating Mode		Light ON								Light ON/dark ON selectable by volume									
Control Output		Relay output 1c AC240V 3A max./DC30V 3A max. (Resistive load)								NPN/PNP Open collector DC30V 100mA max.									
Connection		Terminal base(Diameter of applicable cable: φ6~φ10mm)								Terminal base (Diameter of applicable cable: φ6~φ10mm)/M12 Connector									
Ambient Temperature		-25~+55℃ (No freezing)																	
Ambient Humidity		35~85%/RH																	
Environmental Illuminance		Sun Light : 10,000lux max. Halogen light : 3,000lux max.																	
Insulation Resistor		20MΩ								DC500V									
Withstand Voltage		AC2700V 1 minute								—									
Vibration Resistance		10~55Hz amplitude 1.5mm X,Y,Z.each 2 hours																	
Shock Resistance		50G (500m/s) X,Y,Z.each 2 hours																	
Protection category		IECT44 IP67																	
Material		Case/Cover : ABS (glass fiber Included)								Lens : PMMA									

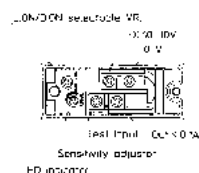
- Be careful not to install the sensor at the following locations, as it may otherwise malfunction.
 - Where a lot of dust, vapor, or the like is present.
 - Where corrosive gas is produced.
 - Where water, oil or the like flows directly onto the sensor.
 - Where strong vibration or shock is caused to the sensor.
- Do not use organic solvent, such as thinner, to remove contaminants from the body case, lid, and lens which are all of plastics. Using a dry rag, just wipe clean.
- When a switching regulator is to be used with a power supply, be sure to ground the Frame Ground Terminal.
- Do not use the sensor in a transient state at power on.(about 100ms)
- Do not run sensor cable near a high-voltage lines, or power lines or put them together in the same raceway. This warning should be strictly observed to prevent malfunctions caused by inductive interference.

⚠ Must not use this item as safety equipment for the purpose of human body protection

- AC/DC type



- DC type

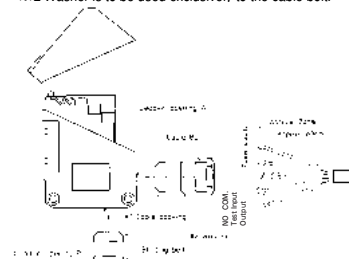


※Test Input function for through-beam type is equipped to emitter

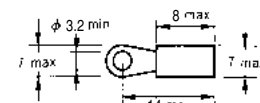
- Connection

- Install the cables to match the connection terminal No. as shown below.
- Use either lead-in opening A or B according to the installation method involved.
- Install a winding bolt at the lead-in opening not to be used.
 - The figure below shows how the cables are installed when lead-in opening A is used.
- ※1 Cable packing is selected separately either for cable or blinding bolt according to cable diameter.

Large : $\phi 8 \sim \phi 10$ Small : $\phi 6 \sim \phi 8$
- ※2 Washer is to be used exclusively to the cable bolt.



- Dimensions of applicable solderless terminals

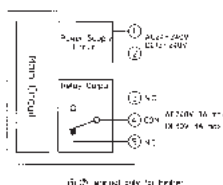


- Use solderless terminals with insulating tube.
- Use 6 to 10 mm diameter cables circular in section to maintain watertightness.
- Wrong wiring may be a cause of burned or damaged sensor. Pay due attention to wiring.
- Be careful not to install the cable near power lines, for otherwise the sensor may malfunction.
- Using the mounting accessories supplied, the sensor can be installed on either floor or wall.

- AC/DC type

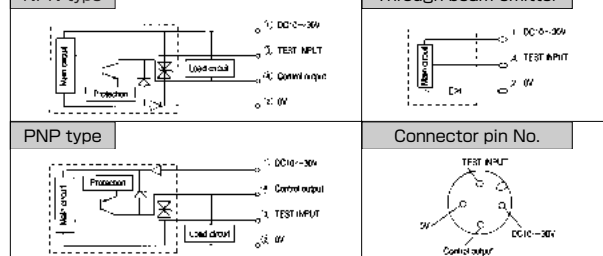
- AC/DC type

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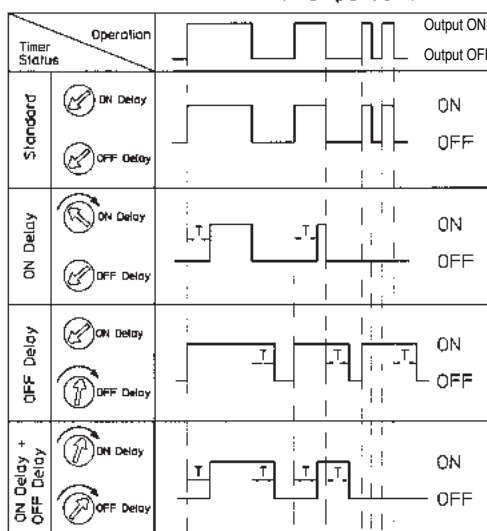
- DC type

NPN type



TIMER CHART

Timer period (0.1 ~ 10S)

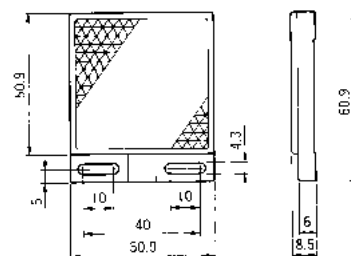


TEST INPUT FUNCTION

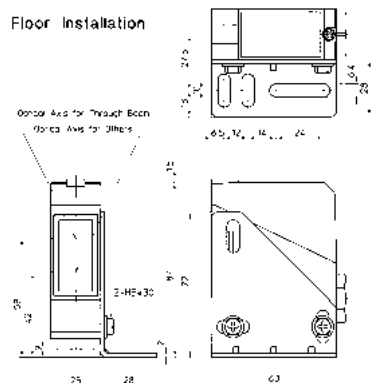
When the No.③terminal is connected to 0V (NPN type) or 10~30VDC (PNP type), an interrupted status is electrically invented by stoppage of emission. This function can be used as the operational check of the sensor by electric interrupted state without detectable object.

ACCESSORIES

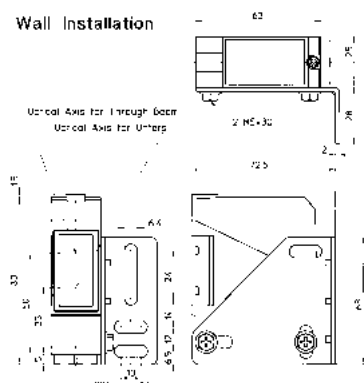
- Standard reflection mirror Type V-61
(for Retro-reflection model)



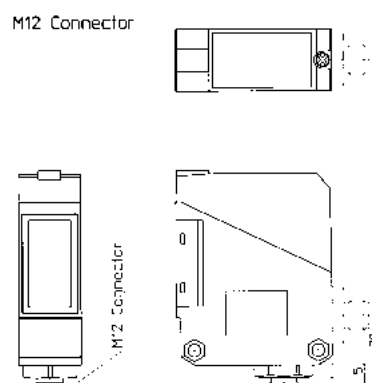
Floor Installation



Wall Installation



M12 Connector



- Specifications and equipment are subject to change without any obligations on the part of manufacture.
- For more information, questions and comments regarding products, please contact us below.

Manufactured and sold by :

OPTEX
FA OPTEX FA CO.,LTD.

600-8815 Kyoto, Shimogyo, Awata Chudoji 93, Japan
TEL. +81-(0)75-325-2920
FAX. +81-(0)75-325-2921

Website : <http://www.optex-fa.com>