



Photoelectric Sensor V3, V4 SERIES

•V4T/V3T-7000□□ DC Type
•V4R/V3R-1200□□
•V4D/V3D-200□□

INSTRUCTION MANUAL

- 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.

SPECIFICATIONS

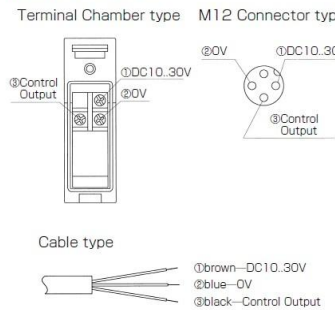
Item	Type	Through Beam			AC/DC type			Diffused Reflection		
		Terminal Chamber	Cable	M12 Connector	Terminal Chamber	Cable	M12 Connector	Terminal Chamber	Cable	M12 Connector
Supply Voltage		V4T-7000N.P	V3T-7000N.P	V3T-7000CN.OP	V4R-1200N.P	V3R-1200N.P	V3R-1200CN.OP	V4D-200N.P	V3D-200N.P	V3D-200CN.OP
Current Consumption		DC10~30V Including ripple (P-P) 10% 35mA max.								
Light Source		Red LED (635nm)								
Detecting Distance		70m			12m / Reflector V-61			2m		
Hysteresis								20% max		
Sensitivity Adjustment		One turn volume								
Response Time		0.5ms max.								
Indicator		Output indicator (orange LED) / Stable indicator (green LED)								
Operating Mode		Light ON/Dark ON selectable by Volume								
Control Output		NPN/PNP open collector DC30V, 100mA max. (Residual voltage 1.8V max.)								
Environmental Illuminance	Sun Light	10,000lx								
	Incandescent Light	3,000lx								
Ambient Temperature		-25~55°C								
Ambient Humidity		35~85%/RH								
Storage Temp./Humidity		-40~70°C/35~95% RH								
Insulation Resistance		Min 20MΩ / DC500V								
Vibration Resistance		10~55Hz amplitude 1.5mm X, Y, Z each 2h								
Shock Resistance		500m/s ² X, Y, Z each 3times								
Protection Category		IEC 144 IP67								

OTHER PRECAUTIONS

- 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 files 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.

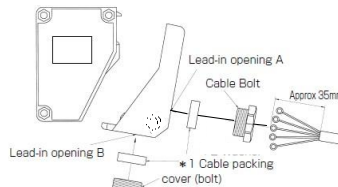
⚠ Must not use this item as safety equipment for the purpose of human body protection.

HOW TO USE

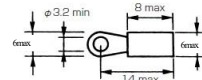


Connection

- 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 cover (bolt) 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 cover (bolt) according to cable diameter.
Large φ4 ~ φ6 Small φ6 ~ φ8

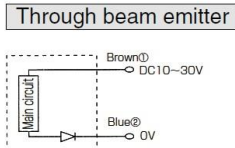
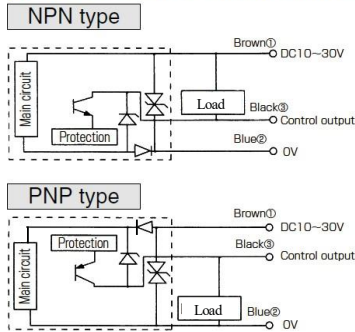


○ Dimensions of applicable solderless terminals

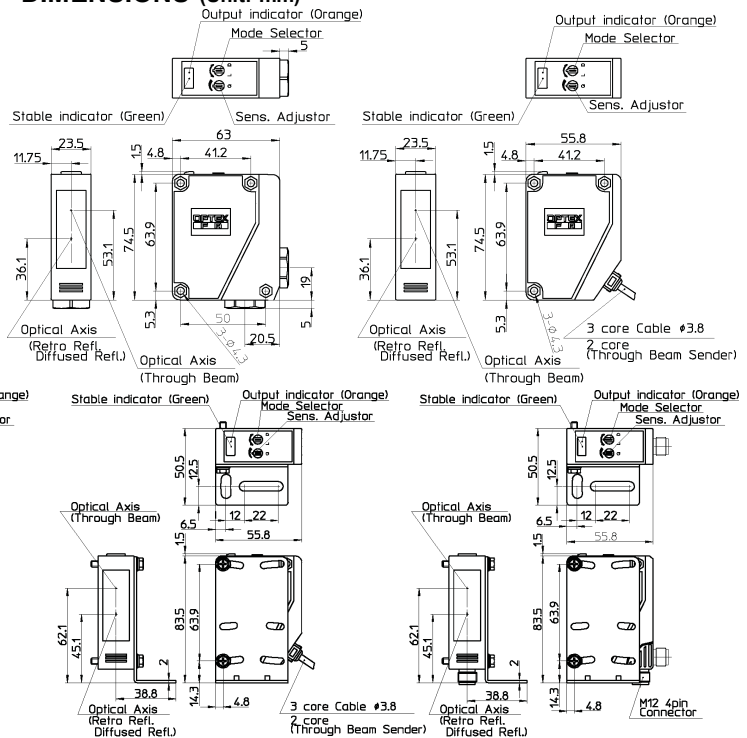


- Use solderless terminals with insulating tube.
- Use 4 to 8 mm diameter cables circular in section to maintain watertightness.
- Wrong wiring may be a cause of burned or damaged sensor. Pay due attention to wiring.
- Be careful not to install the cable near power lines, for otherwise the sensor may malfunction.
- Using the mounting accessories supplied, the sensor can be installed on either floor or wall.

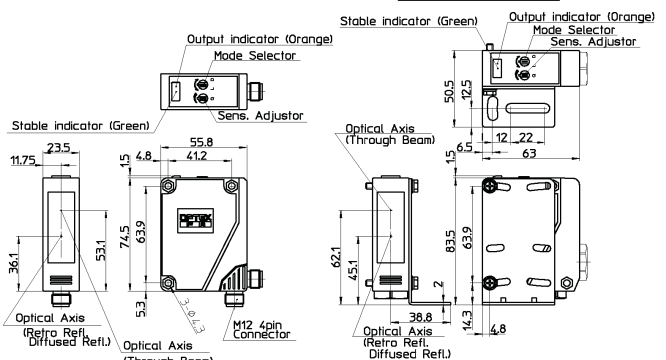
INPUT AND OUTPUT CIRCUIT DIAGRAMS



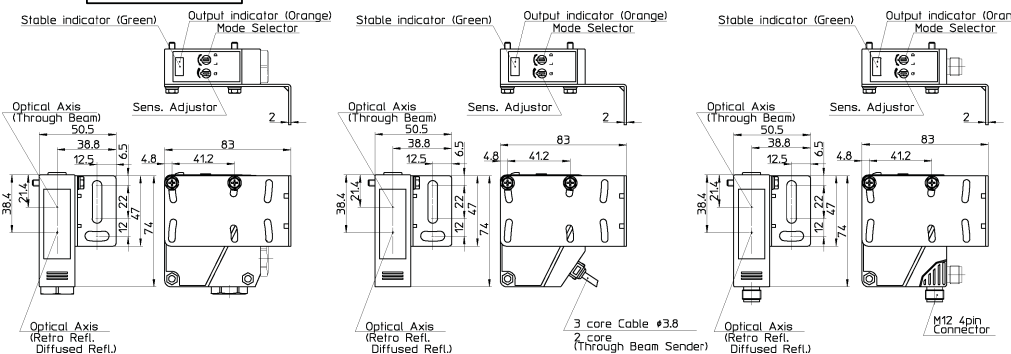
DIMENSIONS (Unit: mm)



Floor Installation



Wall Installation



- 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 CO., LTD.



Photoelectric Sensor

V3, V4 SERIES

AC/DC Type

- V4T/V3T-7000
- V4R/V3R-1200
- V4D/V3D-200

INSTRUCTION MANUAL

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SPECIFICATIONS

Item	AC/DC type					
	Through Beam		Retro Reflection		Diffused Reflection	
Connection Type	Terminal Chamber V4T-7000	Cable V3T-7000	Terminal Chamber V4R-1200	Cable V3R-1200	Terminal Chamber V4D-200	Cable V3D-200
Supply Voltage	DC24~240V ±10% AC24~240V ±10% 50/60Hz					
Current Consumption	3VA max.(Class A),4VA max.(Class B) 2VA max.(Class A),2.5VA max.(Class B)					
Light Source	Red LED (635nm)					
Detecting Distance	70m		12m / Reflector V-61		2m	
Hysteresis	-					
Sensitivity Adjustment	One turn volume					
Response Time	20ms					
Indicator	Output indicator (orange LED) / Stable indicator (green LED)					
Operating Mode	Light ON					
Control Output	Relay Output 1Form C AC240V / DC30V,3A max (Resistive)					
Relay Lifetime	Mechanical : 5X10 ⁷ / Electrical : 10 ⁷					
Environmental Sun Light	10,000lx					
Illuminance Incandescent Light	3,000lx					
Ambient Temperature	-25~55°C					
Ambient Humidity	35~85%/RH					
Storage Temp./Humidity	-40~70°C/35~95% RH					
Insulation Resistance	Min.20MΩ / DC500V					
Withstand Voltage	AC2,700V 50/60Hz 1minute					
Vibration Resistance	10~55Hz amplitude1.5mm X, Y, Z each 2h					
Shock Resistance	500m/s ² X, Y, Z each 3times					
Protection Category	IEC 144 IP67					

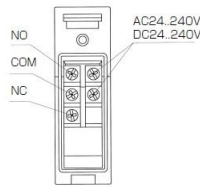
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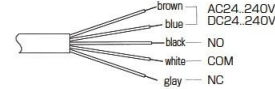
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HOW TO USE

AC/DC model Terminal Chamber type

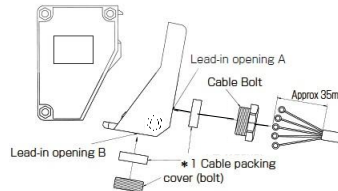


AC/DC model Cable type

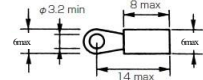


Connection

- 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 cover (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 cover (bolt) according to cable diameter. Large: φ4~φ6 Small: φ6~φ8



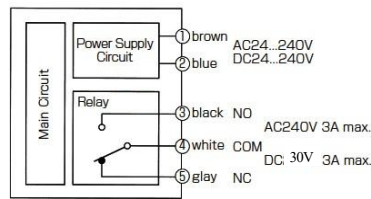
○ Dimensions of applicable solderless terminals



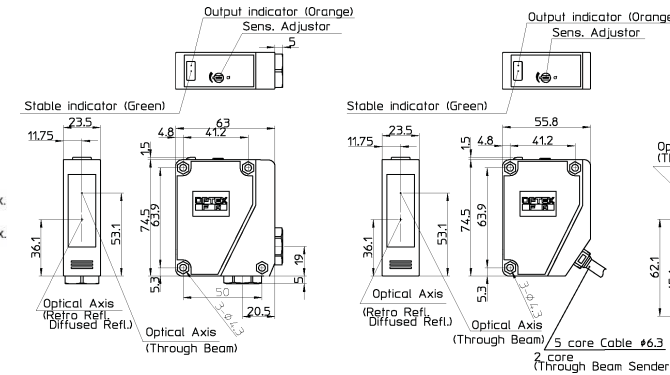
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INPUT AND OUTPUT CIRCUIT DIAGRAMS

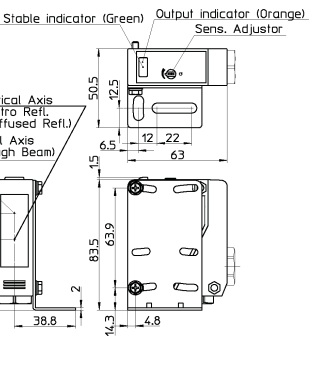
AC/DC type



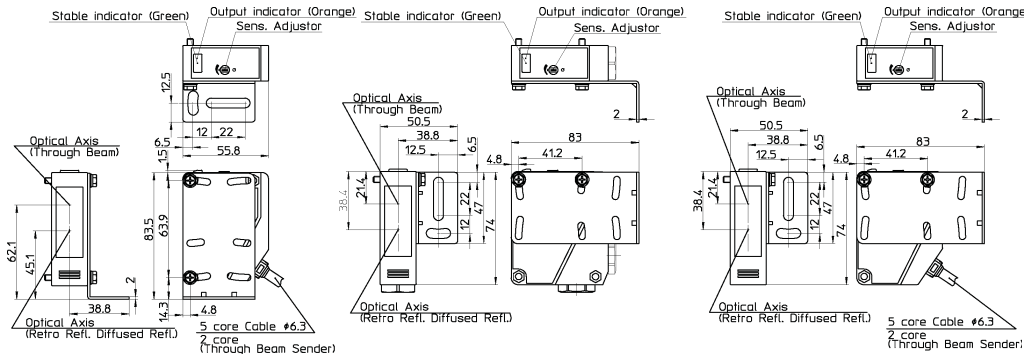
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