



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.

		AG/DC type								
		Through Beam			Retro Reflection			Diffused Reflection		
Connection		Terminal Chamber	Cable	M12 Connector	Terminal Chamber	Cable	M12 Connector	Terminal Chamber	Cable	M12 Connector
Item	Type	V4T-7000N.P	V3T-7000N.P	V3T-7000CN.CP	V4R-1200N.P	V3R-1200N.P	V3R-1200CN.CP	V4D-200N.P	V3D-200N.P	V3D-200CN.CP
Supply Voltage		DC10~30V Including ripple (P-P) 10%								
Current Consumption		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								
	Indoor/Outdoor Light	3,000lx								
Ambient Temperature		-25~55℃								
Ambient Humidity		35~85% RH								
Storage Temp./Humidity		-40~70℃/35~95% RH								
Insulation Resistance		Min.20MΩ /DC500V								
Vibration Resistance		10~55Hz amplitude1.5mm X, Y, Z each 2h								
Shock Resistance		500m/s² X, Y, Z each 3times								
Protection Category		IEC 144 IP67								

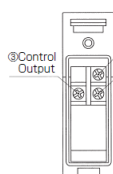
OTHER PRECAUTIONS

- 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.

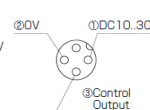
Must not use this item as safety equipment for the purpose of human body protection.

HOW TO USE

Terminal Chamber type



M12 Connector type

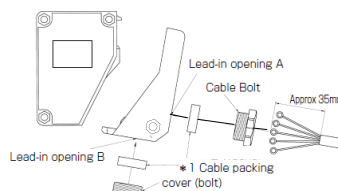


Cable type

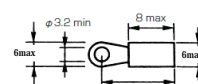


Connection

- 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) 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.



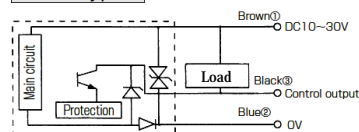
○ Dimensions of applicable solderless terminals



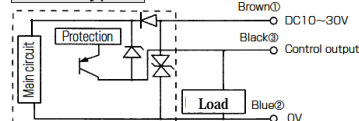
- Use solderless terminals with insulating tube.
- Use 4 to 8 mm diameter cables circular in section to maintain watertightness.
- Wrong wiring may be a cause of burned or damaged sensor. Pay due attention to wiring.
- Be careful not to install the cable near power lines, for otherwise the sensor may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

INPUT AND OUTPUT CIRCUIT DIAGRAMS

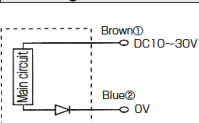
NPN type



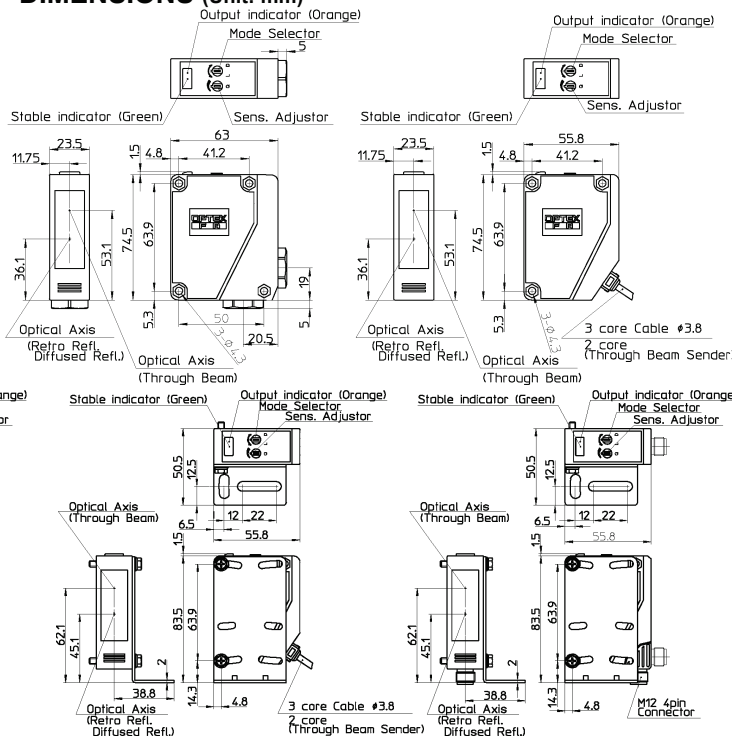
PNP type



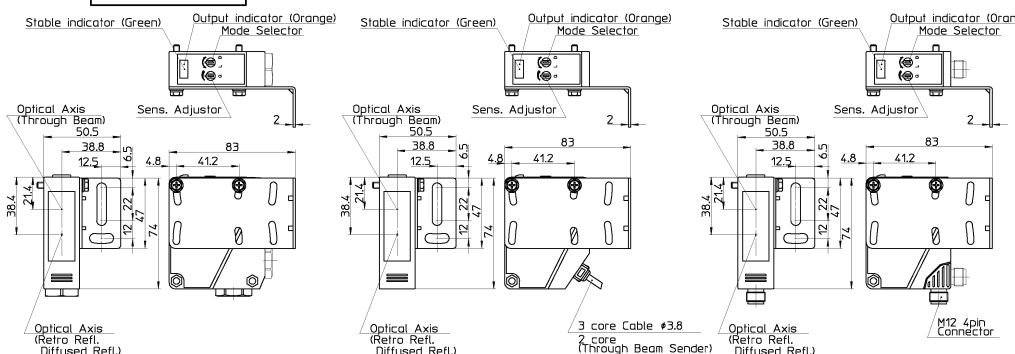
Through beam emitter



DIMENSIONS (Unit: mm)



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 :

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V3, V4 SERIES

•V4D/V3D-200

- 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		AC/DC type					
		Through Beam		Retro Reflection		Diffused Reflection	
Connection		Terminal Chamber	Cable	Terminal Chamber	Cable	Terminal Chamber	Cable
Item	Type	V4T-7000	V3T-7000	V4R-1200	V3R-1200	V4D-200	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		-				20% max	
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 ⁵					
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.20M Ω /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					

- Be careful not to install the sensor at the following locations, as it may otherwise malfunction.