OPTEX FA

Photoelectric Sensor

V3,V4 SERIES DC Type

- V4T/V3T-7000□□
- 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

	AC/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)								
Ditecting 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								
Environmental Illuminance Incandescent 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/s²X, Y, Z each 3times								
Protection Category	IEC 144 IP67								

OTHER PRECAUTIONS

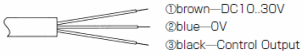
- Be careful not to install the sensor at the follwing locations, as it may otherwise malfunction.
  - Where a lot of dust, vapor, or the like is present.
  - Where corrosive gas is produced.
  - Where water, oil or the like files directly onto the sensor.
  - Where strong vibration or shock is caused 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 prastics. 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 malfuncdtions 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

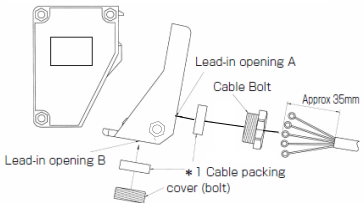
Cable type



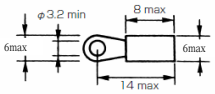
Connection

- 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 opeing 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

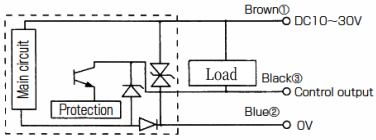


- Use solderless terminals with insulating tube.

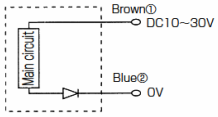
- Use 4 to 8 mm diameter cables circular in section to maintain waterightness.
- Wrong wiring may be a cause of burned or damaged sensor. Pay due attention to wiring.
- Be careful not to inslall the cable near power lines, for otherwise the sensor may mulfunction.
- Using the mounting accessories supplid, the sensor can be installed on either floor or wall.

INPUT AND OUTPUT CIRCUIT DIAGRAMS

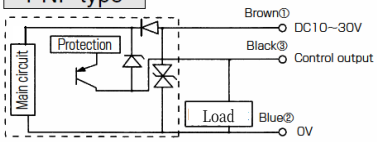
NPN type



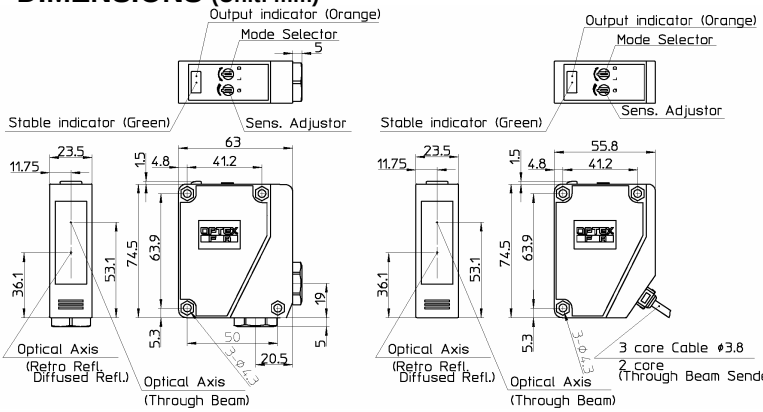
Through beam emitter



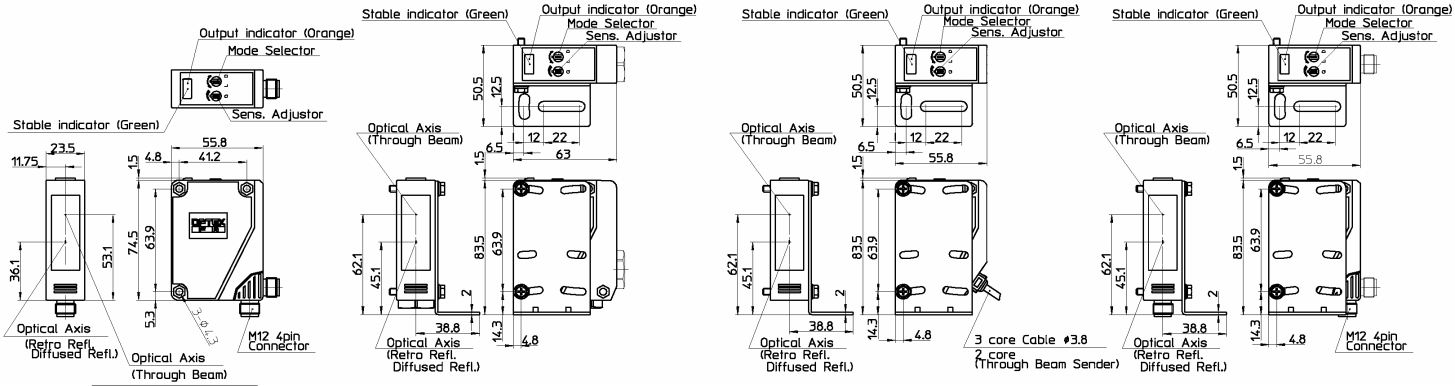
PNP type



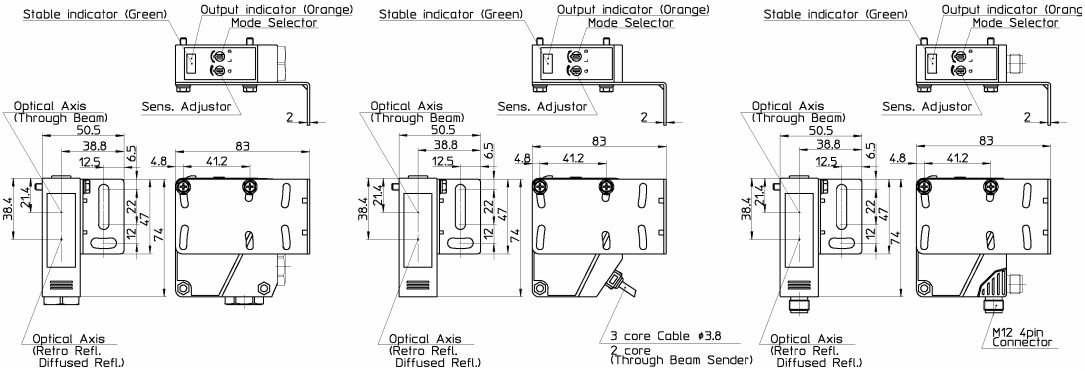
DIMENSIONS (Unit: mm)



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 :

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

OPTEX FA

Photoelectric Sensor

V3, V4 SERIES

AC/DC Type

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

INSTRUCTION MANUAL

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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)					
Ditecting 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					
Environmental Illuminance (Incandescent Ligh)	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/s²X, Y, Z each 3times					
Protection Category	IEC 144 IP67					

OTHER PRECAUTIONS

- Be careful not to install the sensor at the follwing locations, as it may otherwise malfunction.
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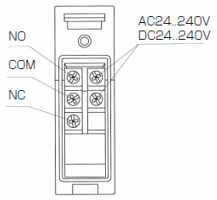
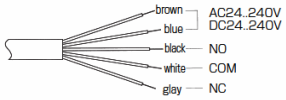
HOW TO USE

AC/DC model Terminal Chamber type



AC/DC model Cable type



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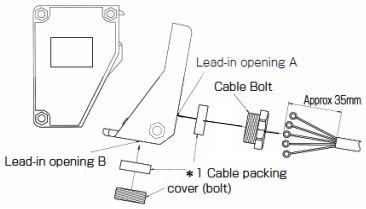
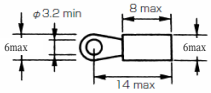


- Dimensions of applicable solderless terminals



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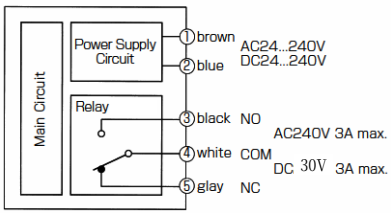
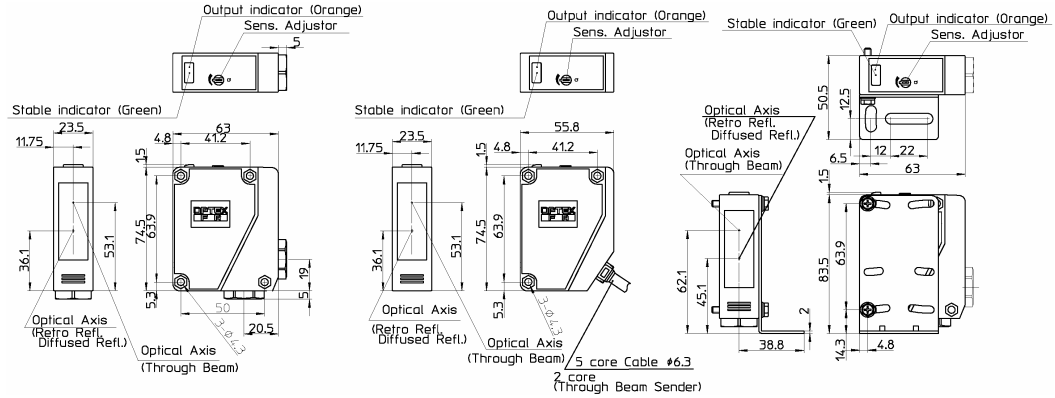
INPUT AND OUTPUT CIRCUIT DIAGRAMS

AC/DC type

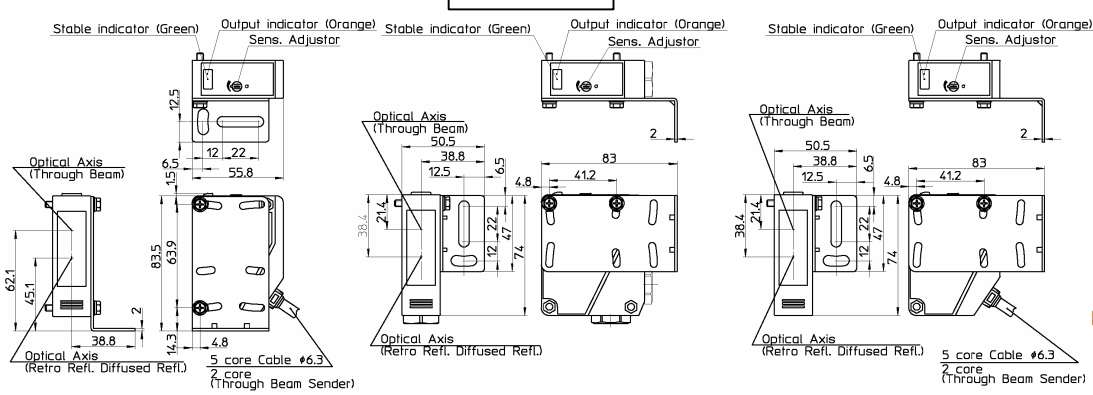


DIMENSIONS (Unit: mm)

Floor Installation



Wall Installation



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