

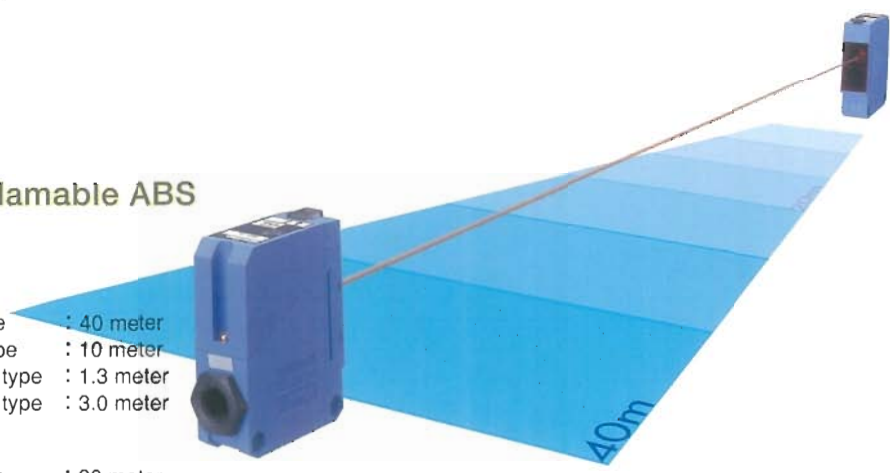
## AC/DC Free Voltage type

# V series

40m sensing-  
Rigid housing made from unflamable ABS  
(15% glass powder inclusive)

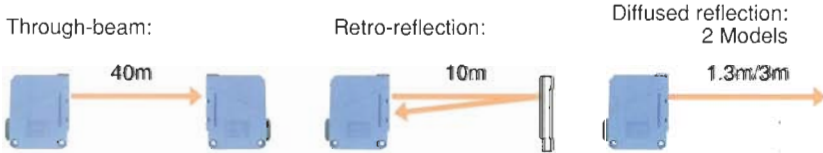
- Relay type
  - VT-4000 / VT-4000T : Through-Beam type : 40 meter
  - VR-1000 / VR-1000T : Retro-Reflection type : 10 meter
  - VD-130 / VD-130T : Diffused Reflection type : 1.3 meter
  - VD-300 / VD-300T : Diffused Reflection type : 3.0 meter
- NPN / PNP type
  - VT-3000N / 3000P : Through-Beam type : 30 meter
  - VR-800N / 800P : Retro-Reflection type : 8 meter
  - VD-100N / 100P : Diffused Reflection type : 1 meter
  - VD-250N / 250P : Diffused Reflection type : 2.5 meter

■ Connector versions are available for NPN / PNP type



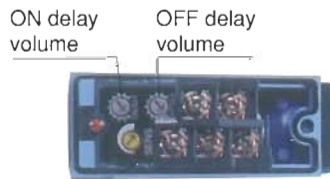
### Features

#### Great detecting distance (Relay output type)



#### Timer Function

Adjustable ON delay, OFF delay and ON+OFF delay time by individual delay trimmer. From 0.1 to 10 sec.



#### Applicable to Variable AC/DC free-voltage

(Relay type)

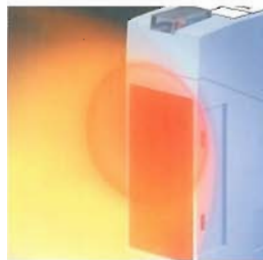
24 to 240V AC  
12 to 240V DC.



#### Visible red light source

(Except VD-300/300T of Infrared LED)

Visible RED light source,  
an easier way to align to the substance.



### Applications (example)

#### Rubber/plastic industry

Positioning / counting the tire.



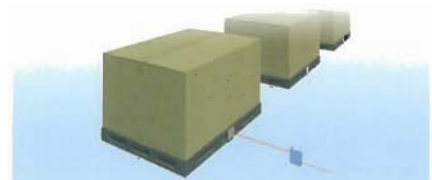
#### Transportation industry

Positioning the car in garage.



#### Material handling

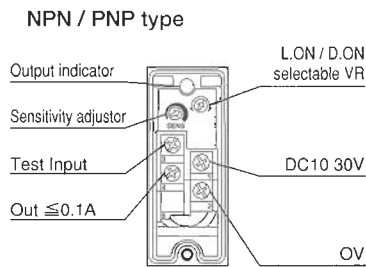
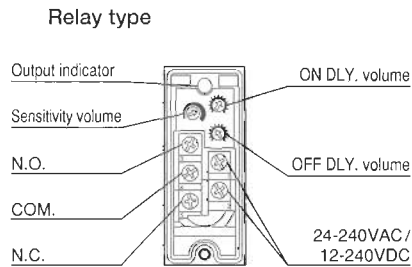
Presence of pallets on conveyer.



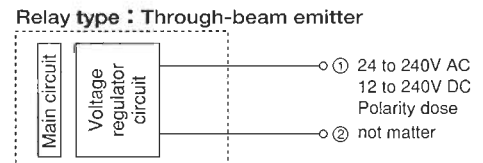
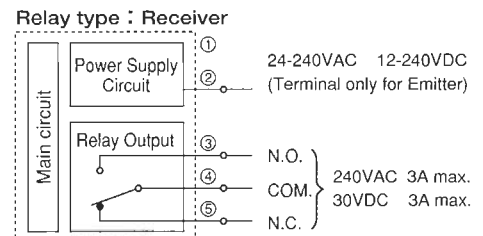
# Specifications

Model	Thru-beam		Retro-reflection		Diffuse		Diffuse-long	
Cable type (NPN / PNP)	VT-3000N	VT-4000	VR-800N	VR-1000	VD-100N	VD-130	VD-250N	VD-300
	VT-3000P	(Relay output)	VR-800P	(Relay output)	VD-100P	(Relay output)	VD-250P	(Relay output)
Connector type (NPN / PNP)	VT-3000CN	—	VR-800CN	—	VD-100CN	—	VD-250CN	—
	VT-3000CP	—	VR-800CP	—	VD-100CP	—	VD-250CP	—
Timer type	—	VT-4000T 0.1-10 sec (ON + OFF delay)	—	VR-1000T 0.1-10 sec (ON + OFF delay)	—	VD-130T 0.1-10 sec (ON + OFF delay)	—	VD-300T 0.1-10 sec (ON + OFF delay)
Scanning Range	30 meter	40 meter	8 meter	10 meter	1 meter	1.3 meter	2.5 meter	3 meter
Supply Voltage	DC 10-30V	AC24-240V±10% DC12-240V±10%	DC 10-30V	AC24-240V±10% DC12-240V±10%	DC 10-30V	AC24-240V±10% DC12-240V±10%	DC 10-30V	AC24-240V±10% DC12-240V±10%
Power Consumption	35mA	8.5VA	35mA	5VA	35mA	5VA	5mA	5VA
Min. substance	30mm round		50mm round		20mm round		40mm round	
Response Time	1.5ms	20ms	1.5ms	20ms	1.5ms	20ms	5ms	20ms
Hysteresis	—	—	—	—	20%	20%	20%	20%
Light Source	Red LED						Infrared	
Test Input	yes	No	yes	No	yes	No	yes	No
Operating Mode	L/D switchable	Light-on	L/D switchable	Light-on	L/D switchable	Light-on	L/D switchable	Light-on
Connection	Terminal chamber (Diameter of applicable cable: φ 6 to φ 10mm)							
Ambient Temperature	-25~+55°C (No freezing)							
Ambient Humidity	35~85%/RH							
Environmental illumination	Sun Light:10,000 lx max. Halogen light:3,000 lx max.							
Isolation Resistance	20MΩ min. (DC500V)							
Withstand Voltage	AC2700V 1 minute (Only to AC power type)							
Vibration Resistance	10-55Hz amplitude 1.5mm X,Y,Z, each 2 hours							
Shock Resistance	50G (500m/s <sup>2</sup> ) X,Y,Z, each 3 times							
Protection Category	IEC 144, IP67							
Material	Case/Cover:ABS (Glassfiber-reinforced) Lens:PMMA							
Weight	Emitter : 70g Receiver : 90g				95g			

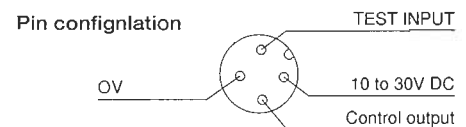
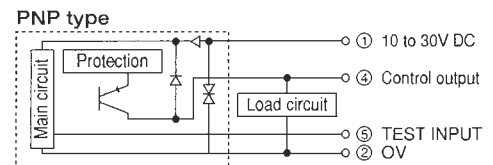
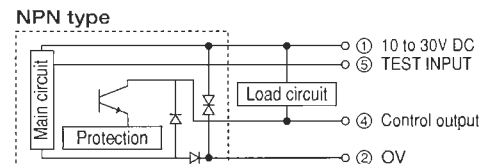
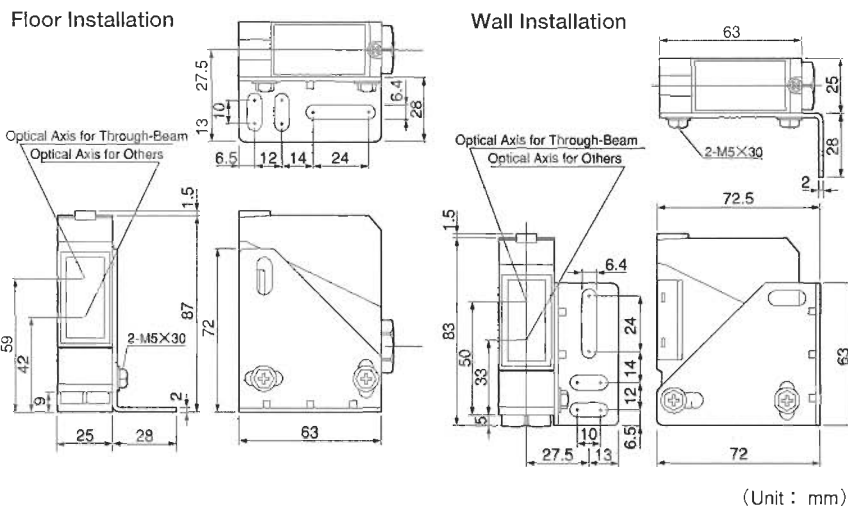
## Components



## Connection diagram



## Dimensions



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