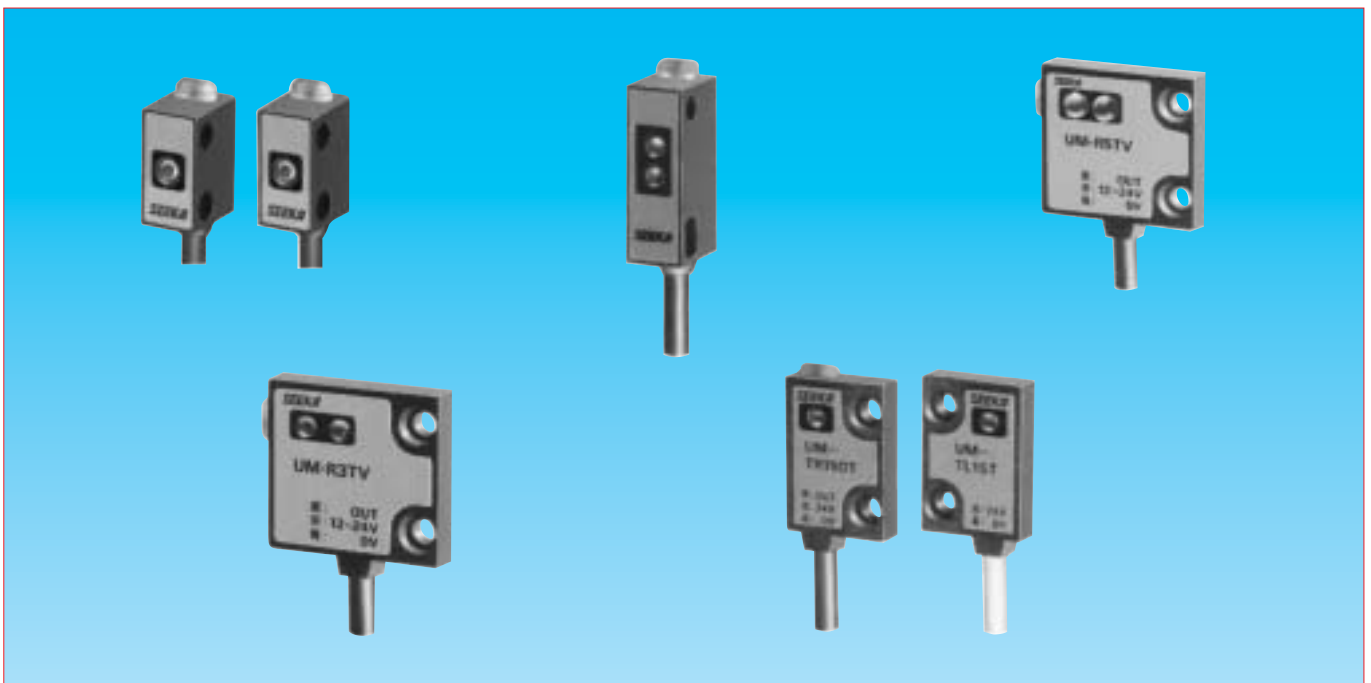


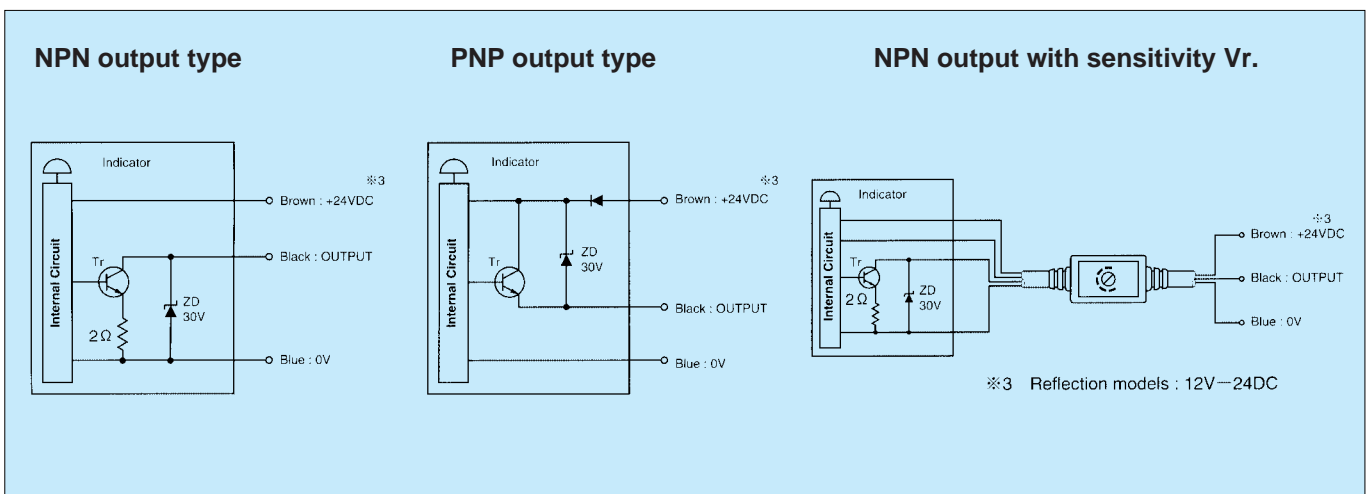
UM series

DC POWER SUPPLY
PHOTO SENSORS

- Ultra small size(extremely thin and narrow)
- Suitable for installation in a limited space or for building into a compact device
- Amplifier built-in type is extremely thin (thickness is just 3.5mm !)
Capacity0.8cm³ max.
Capacity ratioApprox. 1/5 (Ratio by our company)
- Low cost
- The visible light source is a red LED, easy to check transmitter output.
- A stability indicator and an operation indicator are fitted.
- Wide range of uses, from small scaled to total FA (factory automation)



OUTPUT CIRCUIT (Throughbeam type receiver)



SPECIFICATIONS

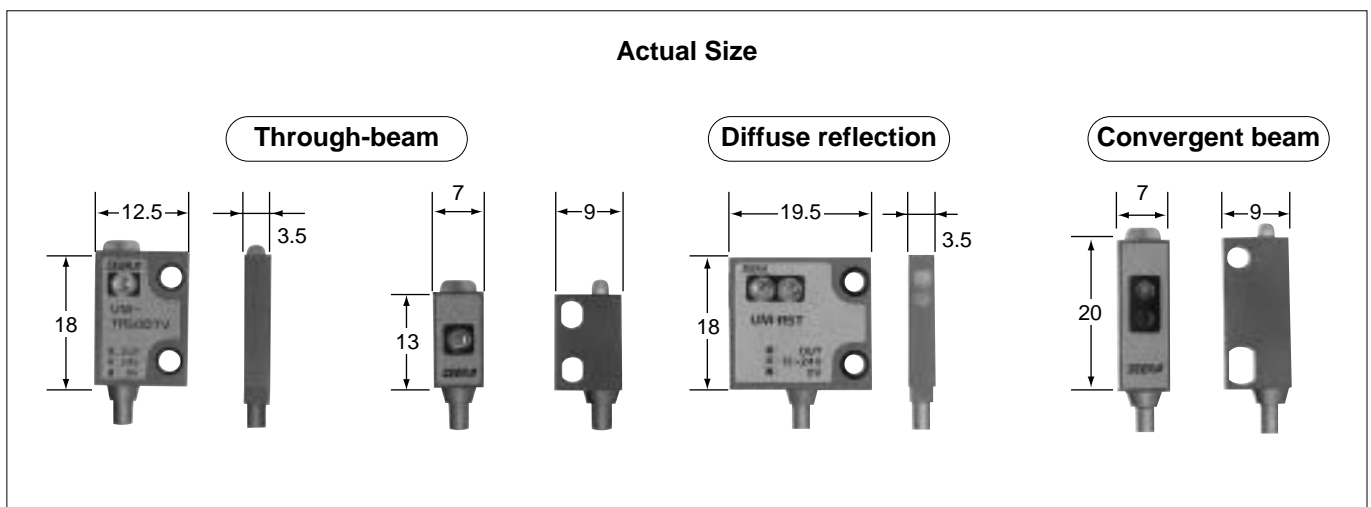
Models	NPN type	UM-T15DT	UM-T15DTV	UM-T50DT	UM-T50DTV	UM-T50DS	UM-R3T	UM-R3TV	UM-R5T	UM-R5TV	UM-Z3SV
	PNP type	UM-T15DTP	UM-T15DTV P	UM-T50DTP	UM-T50DTV P	UM-T50DSP	UM-R3TP	UM-R3TV P	UM-R5TP	UM-R5TV P	UM-Z3SVP
Detection	Through beam						Diffuse reflection				Convergent beam
Range(Max.)	15cm		50cm				0.2 to 3cm 1		0.2 to 5cm 1		0.5 to 3cm 1
Object Resolution	3mm(Min.) Opaque object						-				
Power supply	24V DC \pm 10%, Ripple 10%(Max.) 2						12V - 24V DC \pm 10%, Ripple 10%(Max.)				
Current consumption	NPN type (Max.)	Tr. : 15mA Rc. : 15mA	Tr. : 15mA Rc. : 22mA	Tr. : 15mA Rc. : 15mA	Tr. : 15mA Rc. : 22mA	Tr. : 15mA Rc. : 15mA	20mA	27mA	20mA	27mA	27mA
	PNP type (Max.)	Tr. : 15mA Rc. : 17mA	Tr. : 15mA Rc. : 24mA	Tr. : 15mA Rc. : 17mA	Tr. : 15mA Rc. : 24mA	Tr. : 15mA Rc. : 17mA	22mA	29mA	22mA	29mA	29mA
Output mode	NPN type	NPN Open collector Rating: Sink current 80mA(DC30V) Max.									
	PNP type	PNP Open collector Rating: Source current 80mA(DC30V) Max.									
Operating mode	Dark-ON						Light-ON				
Response time	0.5msec(Max.)										
Hysteresis	-						10%(Max.)				
Light source	Red LED Wave length(660nm)										
LED Indicator	Operation.....Red LED						Stability.....Green LED				
Sensitivity adjst(Vr.)	-	Vr.	-	Vr.	-	-	Vr.	-	Vr.	Vr.	
Connection	Trns. : 0.1sq \times 2C 2m Gray Rcvr. : 0.1sq \times 3C 2m Black						0.1sq \times 3C 2m Black				
	Weight (Max.)	Trns.	30g				30g	40g	30g	40g	40g
	Rcvr.	30g	40g	30g	40g	30g					

- 1 5 \times 5cm White paper
2 12V DC type is available.

ENVIRONMENT

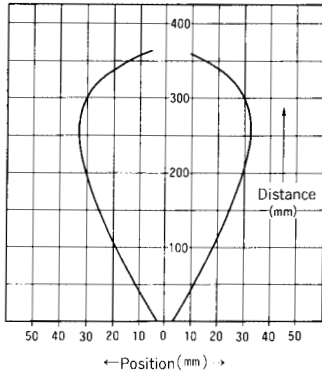
Ambient light	3,000Lux(Max.)
Operating temp.	- 25 ~ + 55
Humidity	35 ~ 85%RH
Case protection	IP64
Vibration	10 ~ 55Hz, 1.5mm Amplitude 2 Hr., 3 Directions

Actual Size

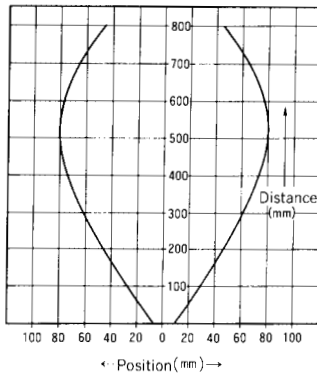


ACTIVE BEAM WIDTH

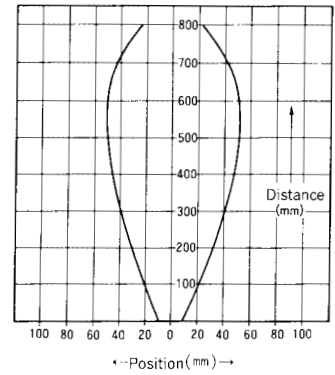
UM-T15DT • UM-T15DTV



UM-T50DT • UM-T50DTV

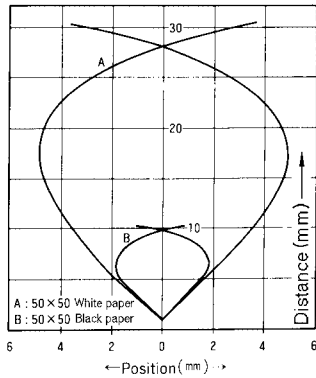


UM-T50DS

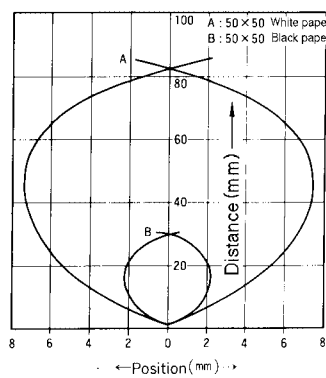


OPERATING AREA CHARACTERISTICS

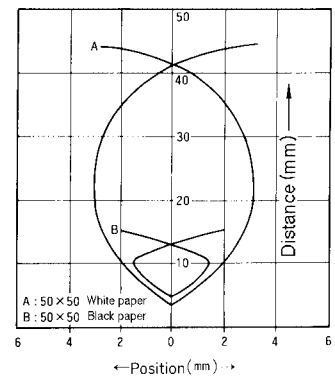
UM-R3T • UM-R3TV



UM-R5T • UM-R5TV

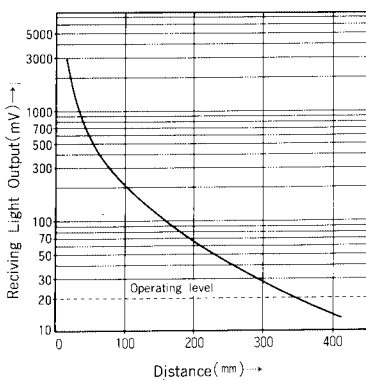


UM-Z3SV

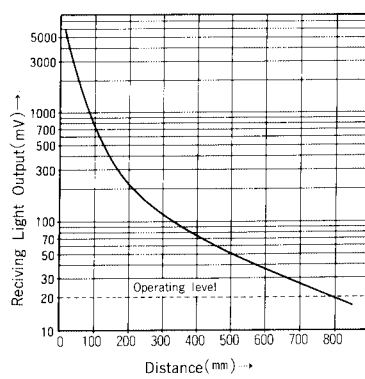


SENSING DISTANCE VS. OUTPUT CHARACTERISTICS

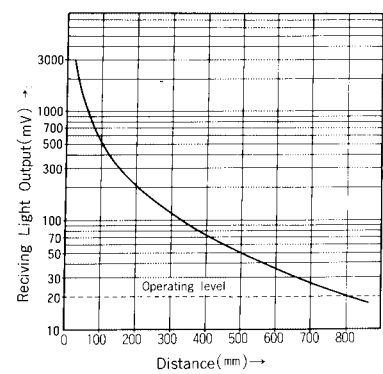
UM-T15DT • UM-T15DTV



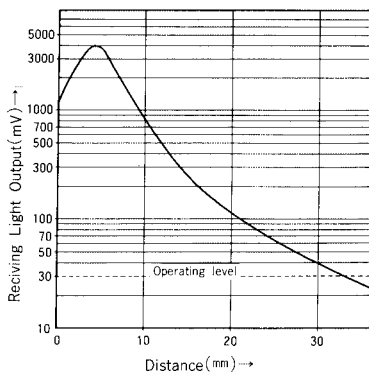
UM-T50DT • UM-T50DTV



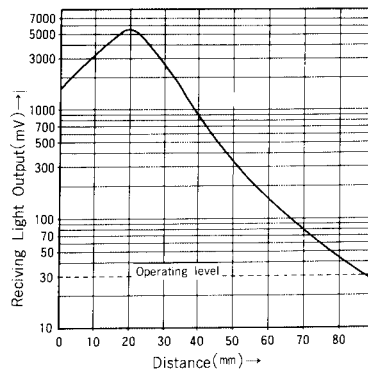
UM-T50DS



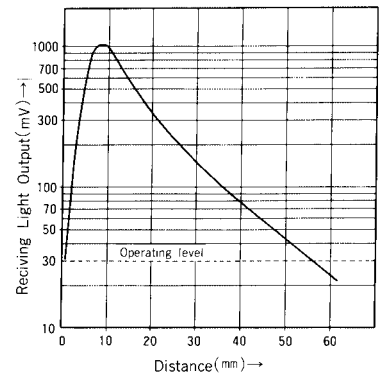
UM-R3T • UM-R3TV



UM-R5T • UM-R5TV

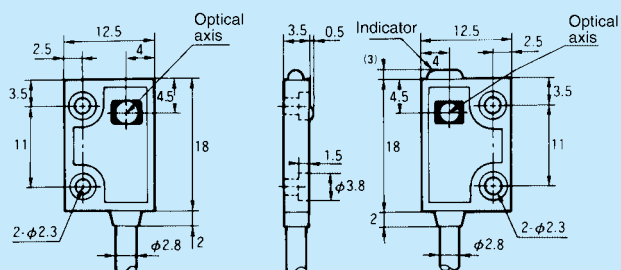


UM-Z3SV



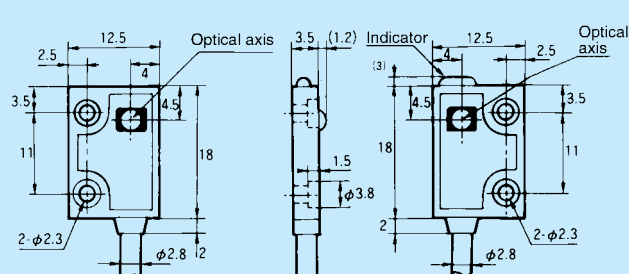
DIMENSIONS

UM-T15DT UM-T15DTV (1)



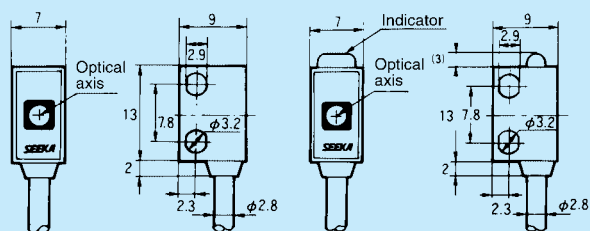
(Edge drawing is omitted, but the edge view is the same except there is no indicator on the transmitter)

UM-T50DT UM-T50DTV (1)

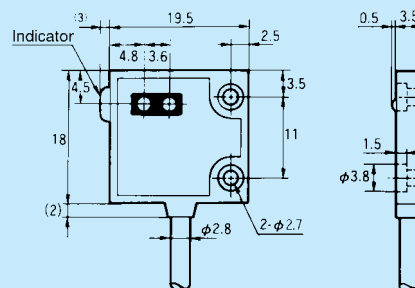


(Edge drawing is omitted, but the edge view is the same except there is no indicator on the transmitter)

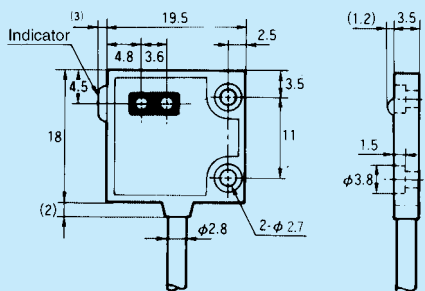
UM-T50DS



UM-R3T UM-R3TV (1)

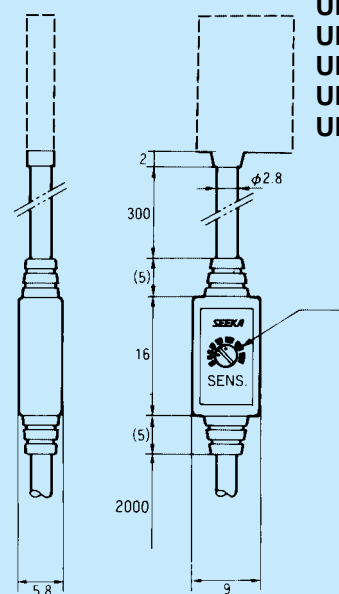


UM-R5T UM-R5TV (1)

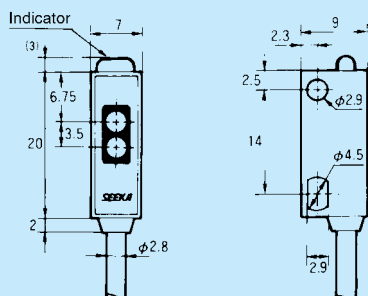


1 The models with a "V" at the end of the model numbers have a sensitivity adjustment. The through beam type has it on its receiver.

UM-T15DTV
UM-T50DTV
UM-R3TV
UM-R5TV
UM-Z3SV



UM-Z3SV (1)



During installation, fasten directly with a screw. Tightening torque should be less than 0.3N.m (3kgf·cm). There is an optional mounting bracket.