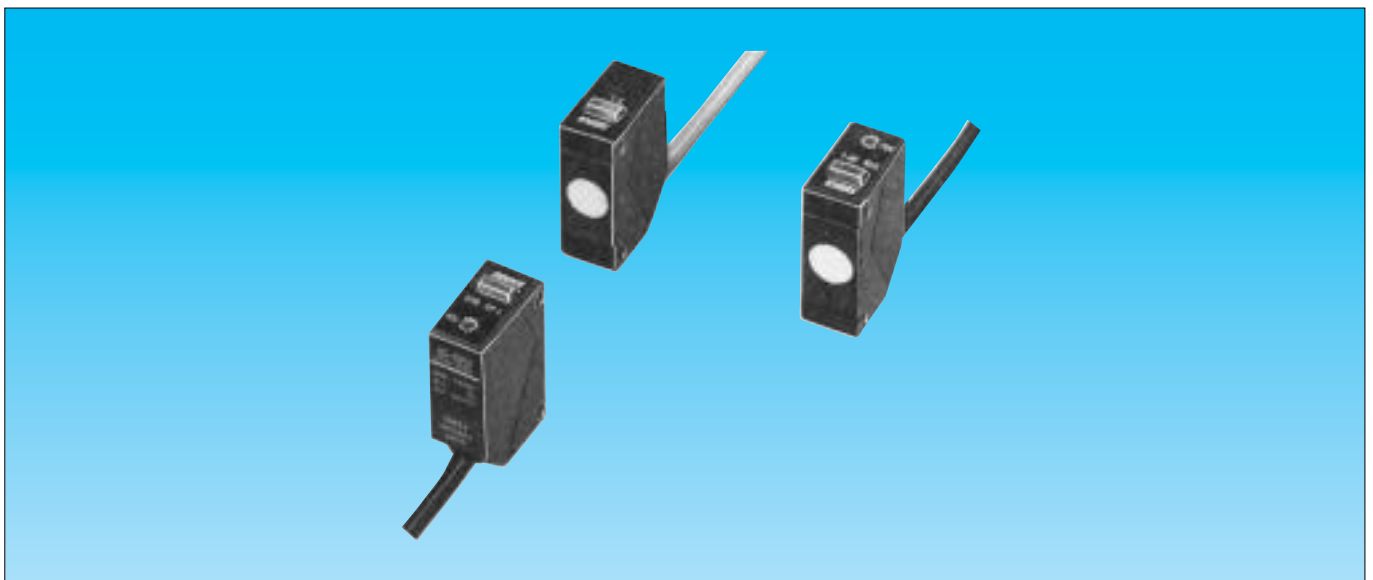


# US-T50/R25 series

ULTRASONIC SENSORS

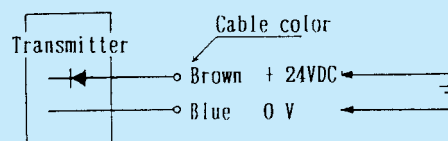
This is an amplifier built-in type sensor that uses micro ultrasonic elements.

The "T" (Trns & Rcvr) type can easily detect food wrapping cling film, plastic containers, etc. The reflection type is suitable for detecting black rubber sheet that has low reflection ratio and transparent objects.



## OUTPUT CIRCUIT

• Connection of "T" (Trns. & Rcvr.) type Model US-TE50

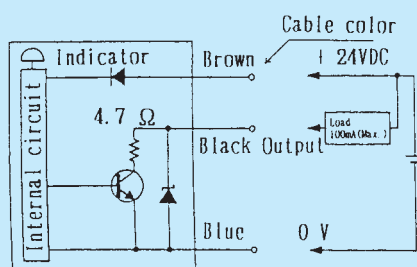


• Connection of Receiver and Reflection Type

(NPN type)

Model No.: US-TD50

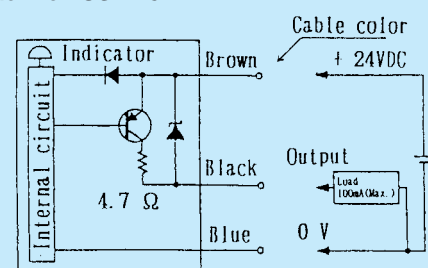
Model No.: US-R25



(PNP type)

Model No.: US-TD50PN

Model No.: US-R25PN



# US-T50/R25 series

## SPECIFICATIONS

Models	Set model	US-T50	US-T50PN	US-R25	US-R25PN
	Transmitter	US-TE50	US-TE50		
	Receiver	US-TD50	US-TD50PN		
Detection	Through-beam			Reflection type	
Range	50cm( Max. )			6 - 25 cm	
Object resolution	10 × 30mm			30 × 30mm ( t=1 Aluminum Plat )	
Power supply	24VDC ± 10%, Ripple 10%( Max. )				
Current consumption	Transmitter :25mA( Max. ) Receiver :15mA( Max. )			25mA( Max. )	
Response time	10ms( Max. )			On Operation:30ms( Max. ) Off Operation:50ms( Max. )	
Output mode	NPN	PNP		NPN	PNP
	Open collector Rating : Sink current 100mA 30VDC( Max. )	Open collector Rating : Source current 100mA 30VDC( Max. )		Open collector Rating : Sink current 100mA 30VDC( Max. )	Open collector Rating : Source current 100mA 30VDC( Max. )
Operating mode	Wave-OFF			Wave-ON	
Wave deviation	20°			-	
Hysteresis	-			10%	
Ultrasonic wave frequency	360 kHz ± 15 kHz				
Led indicator	OP.L: Red LED. Stability: Green LED				
Volume	Sensing Vr.			Distance Adjust Vr.	
Connection	Flying lead( Outer dia 4mm )			Flying lead( Outer dia 4mm )	
	Trns. : 0.2sq × 2 cores 2m			0.2sq × 3 cores 2m	
	Rcvr. : 0.2sq × 3 cores 2m				
Weight	80 g each( Max. )			80 g each( Max. )	

## ENVIRONMENT

Operating temp.	- 10 ~ + 55 ( Excluding uneven temperature in the air where ultrasonic oscillation transfers )
Humidity	35 - 85 %RH
Operating Velocity Of Window	1m/sec( Max. )
Case protection	1P54( No condensation on the ultrasonic element part )
Vibration	10 Hz - 55 Hz. amplitude 1.5mm. 2Hr. X.Y.Z Directions
Shock	490 m/s <sup>2</sup> 2Hr. X.Y.Z Directions ( Excluding the ultrasonic element part )

## DIMENSIONS

