

# SWD55

Punch hole detection sensor

High sensitivity provides reliable detection  
of  $\varnothing 8$  hole

For single hole

Transmitter SWD55L

Receiver SWD55R



Controller SWD55B



With case



Without case

## Features

- Excellent reliability  
High performance characterized by the smallest detectable hole diameter of 8 mm and margin in operation of over 30 times as much as operation level for transmitter and receiver circuits ensures detection even with minor soiling of lens.
- Simple light axis alignment  
Transmitter and receiver are provided with devices exclusively for light axis alignment and lamps are illuminated when the light axis is aligned, facilitating accurate alignment.
- Superb Vibration and waterproofing  
Case and structure time-tested in press safety sensors are employed for transmitter and receiver, withstanding adverse environment.
- Streamlined circuit design has further reduced power consumption. Unitization of transmitter and receiver has achieved about 50-% reduction of size from the conventional model.
- Air purge hood or water-cooling jacket can be attached as required.

## Rating/Performance/ Specification (Transmitter/Receiver)

Model	SWD55L · SWD55R
Detecting distance	Between transmitter and receiver L=400-1000mm
	Between transmitter and coil L1=200mm min.
	Between receiver and coil L2=200mm min.
Light source	Infrared LED
Light-sensitive element	Silicon phototransistor
Effective detecting width	300mm
Ambient temperature	-10 - +55 °C (Non-freezing/ Non-condensing)
Insulation resistance	500 VDC, 20 MΩ or higher (between power supply and case)
	500 VDC, 20 MΩ or higher (between output and case) (receiver only)
Dielectric withstanding	500 VAC for 1 minute (between power supply and case)
	500 VAC for 1 minute (between output supply and case) (receiver only)
Connection	Metal connector (cord not provided)
Protective structure	IP66
Mass	Transmitter: about 3kg, receiver: about 3kg max.
Power Supply	Supplied by controller

## (Controller)

Model	SWD55B
Output	Relay contact 1c and open collector output (Light-ON)
Output rating	Relay contact: 250 VAC 5 A (resistance load) Open collector output: 48 VDC 75 mA max., transistor activated for output
Operation	One-shot output, duration variable between 0.1 and 1 second
Response time	25ms max
Power supply	100-110 VAC or 200-220 VAC (Normal-rated voltage: +10%/-15%, 50/60 Hz)
Power consumption	20W max.
Ambient temperature	-10 - +55 °C (Non-freezing/ Non-condensing)
Insulation resistance	500 VDC, 20 MΩ or higher (between power supply/output and case)
	500 VDC, 20 MΩ or higher (between power supply and output) (receiver only)
Dielectric withstanding	1,500 VAC for 1 minute (between power supply/output and case)
	1,500 VAC for 1 minute (between power supply and output)
Connection	Terminal block
Protective structure	IP40 (with case)
Mass	About 8.7kg

## Dimension (in mm) (in mm; for controller, see P.551)

