




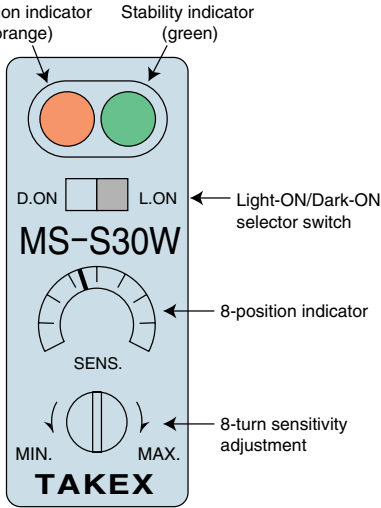
- High-response sensor supporting a wide range of colors

- White LED
- Detecting distance 30 mm
- High response 30 μ s
- Multi-turn pot. for easy adjustment

Type

Detection method	Detecting distance	Model	Operation mode	Output mode
Limited reflection type	 30mm \pm 2mm	MS-S30W	Light-ON/Dark-ON selector switch	NPN/PNP open collector

Panel Layout and Functions



The diagram shows the front panel of the MS-S30W sensor. At the top are two circular indicators: an orange one labeled 'Operation indicator (orange)' and a green one labeled 'Stability indicator (green)'. Below them is a rectangular switch labeled 'D.ON' and 'L.ON' with a label 'Light-ON/Dark-ON selector switch'. The model number 'MS-S30W' is printed in the center. Below that is a semi-circular scale labeled '8-position indicator' with 'SENS.' in the middle. At the bottom is a circular potentiometer labeled '8-turn sensitivity adjustment' with 'MIN.' and 'MAX.' markings. The 'TAKEX' logo is at the very bottom.

- SENS.
Adjustment pot. for fine tuning. Turning clockwise increases the amplifier sensitivity and allows detection of marks in dark colors.
Turning beyond the MIN. or MAX. makes a clicking sound.
- 8-position indicator
Allows reading of the current sensitivity setting made with the 8-turn adjustment.
- L.ON/D.ON
Light-ON/Dark-ON selector switch
- Stability indicator
Illuminated when the received light intensity level is 90% or lower or 110% or higher of the operation level.
- Operation indicator
Illuminated when the output transistor is activated.

MS-S30W

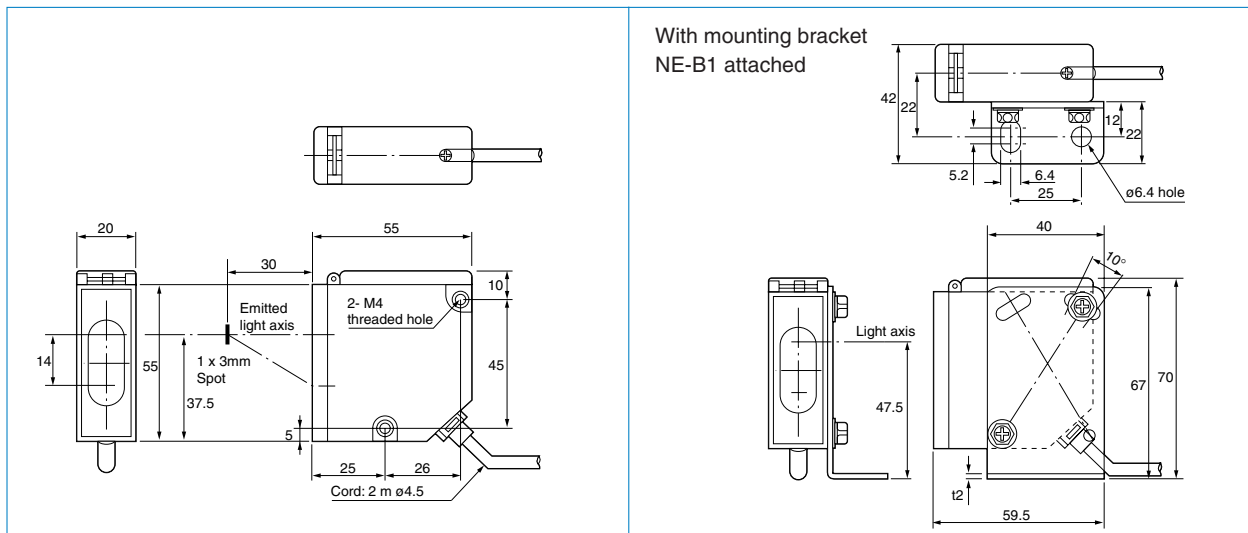
Rating/Performance/Specification

Model		MS-S30W	
Rating/performance	Detection method	Limited reflection type	
	Detection distance	30mm±2mm (standard detection object: 50 x 50 mm white drawing paper)	
	Spot diameter	1 x 3mm (Position: detecting distance 30 mm / Direction: see Dimensions)	
	Minimum detectable mark width	0.5mm (black mark on white background) (at detecting distance 30 mm)	
	Power supply	12 – 24 VDC ±10% Ripple: 10 % max.	
	Current consumption	40 mA max.	
	Output mode	NPN/PNP open collector (2 outputs) Rating: sink/source current 100 mA (30 VDC) max. Residual voltage: 1 V max. for NPN output / 2 V max. for PNP output	
	Operation mode	Light-ON/Dark-ON selectable	
	Response time	30 µs max.	
	Light source	White LED	
Specification	Indicator	Operation Indicator: orange LED Stability indicator: green LED	
	Volume (VR)	Sensitivity adjustment (8-turn)	
	Switch (SW)	Light-ON/Dark-ON selector switch provided	
	Short circuit protection	Provided	
	Material	Case	Main unit: zinc die-cast, aluminum Head: heat-resistant ABS Display: polycarbonate
		Lens surface	Polycarbonate (lens: glass)
	Connection	Permanently attached cord (Outer dimension: dia.4.5) 0.2 mm ² x 4 cores, 2 m	
	Mass	About 250 g	
Accessory	Mini screwdriver for sensitivity adjustment, mounting bracket, operation manual		

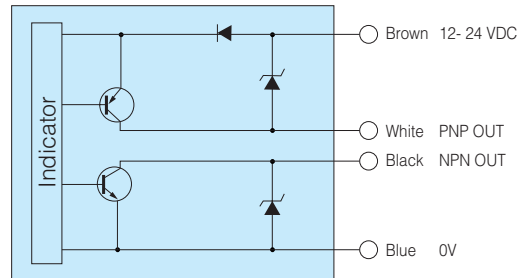
Environmental Specification

Environmental specification	Ambient light	5,000 lx max.
	Ambient temperature	-25 - +55 °C (non-freezing)
	Ambient humidity	35-85%RH (non-condensing)
	Protective structure	IP66
	Vibration	10-55 Hz / 1.5 mm amplitude / 2 hours each in 3 direction

Dimensions (in mm)



Input/Output Circuit and Connection



Note) Capacitor provided between main unit case and 0 V

Activation Area Characteristics (Typical Example)

