

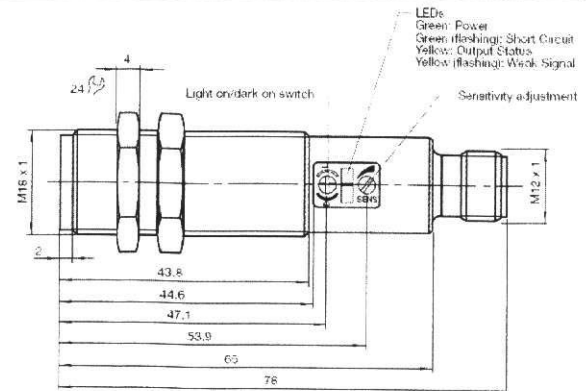
LS-S50MLR 18 mm Cylindrical Laser Sensor

SHIMPO Instruction Manual



LS-S50MLR 18 mm Cylindrical Laser Sensor

- Visible Red Light Source
- Rugged Metal Housing
- NPN or PNP Connection
- Mounting accessories and cable included

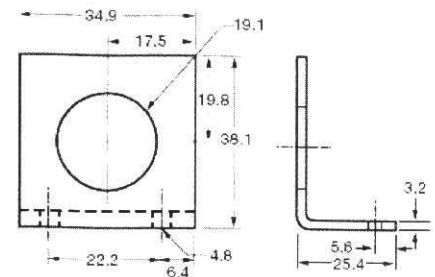


Specifications

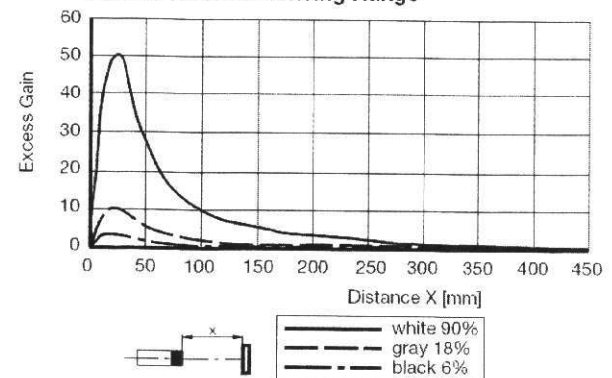
Sensing Range	25-400 mm
Sensing Head	Straight
Output	NPN normally Open
	NPN normally Closed
	PNP normally Open
	PNP normally Closed
Load Current	200 mA max
Voltage Drop	$\leq 2.5\text{VDC}$
Short Circuit and Overload Protection	Yes
Reverse Polarity Protection	Yes
Supply Voltage	10-30 VDC
Voltage Ripple	10%
LED Indicators	Yes (2)
Current Consumption	$\leq 30\text{ mA}$
Operating Mode	Light on/ Dark On
Response Time	$\leq 1.0\text{ms}$
Switching Frequency	500 Hz
Standards EN 60947-5-2	
Protection (IEC)	IP67
Light Spot Size	$\sim 0.5\text{mm}$ at range of 170mm
Ambient Light Resistance	$\leq 30,000\text{ Lux}$
Working Temperature	-13 F to 158 F
Storage Temperature	-22 F to 158 F
Housing Material	Nickel-plated Brass
Weight	2.1 oz
Light Source	Visible Red Laser 660 nm
Electrical Connection	Quick Disconnect

Right Angle Mounting Bracket

Dimensions in mm



Excess Gain vs. Sensing Range



Connection

Black	Signal
Brown	10VDC~30VDC
Blue	0V

Includes

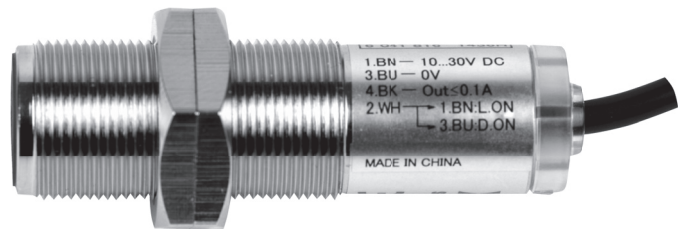
Part Number	Description
CABLE-LS-S50MLR	6.5 Feet of Black cable with quick disconnect connector
TAPE	Reflective Tape
VT18-8 -400	Sensor mounting bracket Right Angle



Retro-Reflective Sensor Model MCS-655M

GENERAL

The MCS-655M is a photo-reflective NPN open collector photo sensor with Light / Dark activated output that operates up to 1000 Hz. For simplified installation purposes the integral LED aids in the MCS-655M model comes in a robust metal housint with a connection cable, LED status indicator, sensitivity control and mounting nuts.

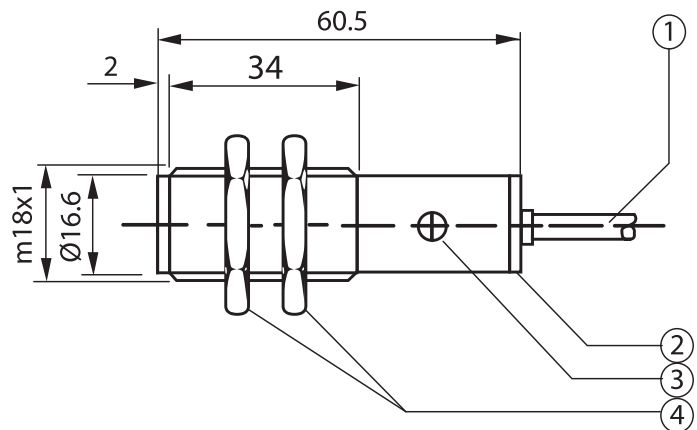


SPECIFICATIONS

Sensor/detection principle: Photoelectric retro-reflective sensor
Housing length: 2.5" (62.9 mm)
Housing thread diameter: M18 x 1
Sensing range: 2" - 23' (0.05 -7 m)
Light/Source: Visible red LED
Light spot @ distance 19.7' (6 m): 15.75" (400 mm)
Wave length: 645 nm
Sensitivity adjustment: Turnable Potentiometer over 270°
Supply voltage: 10-30 V DC
Switching output: NPN open collector, Light/dark-switching, Selectable via L/D control wire
Signal voltage NPN HIGH / LOW: Approx. VS / < 1.8 V
Output current max.: ≤ 100 mA
Response time: ≤ 0.5 ms
Switching frequency: 1,000 Hz with light/dark ratio 1:1
Angle of dispersion: Ca. 4.5 °
Ambient Operating temperature: -13 to 131 °F (-25 to 55 °C)
Housing material: Nickel-plated brass
Optics material: PMMA
Cable material: PVC
Connection type: Cable, 4-wire, 6.6' (2 m)
Circuit protection: Inputs and output reverse-polarity protected; outputs overcurrent and short-circuit protected
Weight: 3.35 oz (95 g)
Enclosure rating: IP 67
Items supplied: Fastening nuts (2 x), Reflector target, reflection tape

DIMENSIONS

1. Connection Cable
2. LED status indicator
3. Sensitivity control
4. Mounting nuts



CONNECTIONS

Brown - +10-30VDC

Blue - 0V

Black - Output (NPN open collector)

White - Connect to Brown : Light Operate

Connect to Blue : Dark Operate

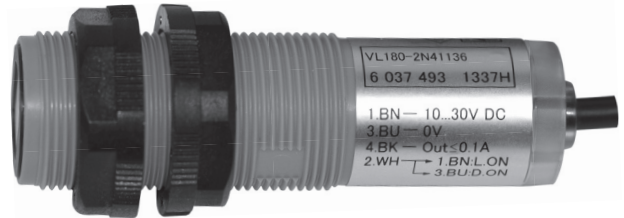
Retro-Reflective Sensor Model MCS-655P

GENERAL

The MCS-655P is a photo-reflective NPN open collector photo sensor with Light / Dark activated output that operates up to 1000 Hz. For simplified installation purposes the integral LED aids in alignment. Sensors also provide a sensitivity adjustment pot providing application flexibility. The MCS-655P model comes with a connection cable, LED status indicator, sensitivity control and mounting nuts.

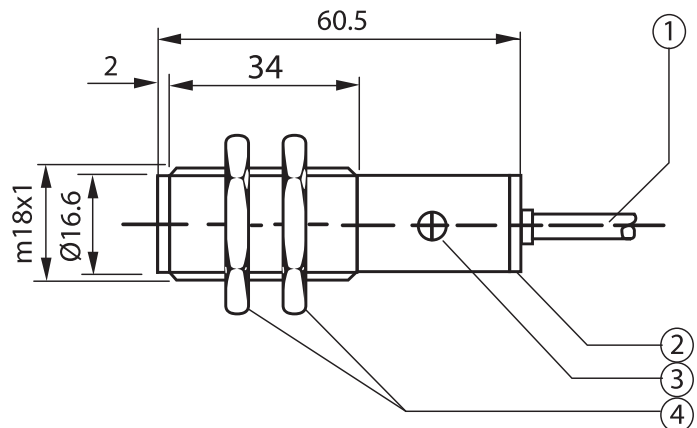
SPECIFICATIONS

Sensor/detection principle: Photoelectric retro-reflective sensor
Housing length: 2.5" (62.9 mm)
Housing thread diameter: M18 x 1
Sensing range: 2" - 23' (0.05 -7 m)
Light/Source: Visible red LED
Light spot @ distance 19.7' (6 m): 15.75" (400 mm)
Wave length: 645 nm
Sensitivity adjustment: Turnable Potentiometer over 270°
Supply voltage: 10-30 V DC
Switching output: NPN open collector, Light/dark-switching, Selectable via L/D control wire
Signal voltage NPN HIGH/LOW: Approx. VS / < 1.8 V
Output current max.: ≤ 100 mA
Response time: ≤ 0.5ms
Switching frequency: 1,000 Hz with light/dark ratio 1:1
Angle of dispersion: Ca. 4.5 °
Ambient Operating temperature: -13 to 131 °F (-25 to 55 °C)
Housing material: PBT and PC
Optics material: PMMA
Cable material: PVC
Connection type: Cable, 4-wire, 6.6' (2 m)
Circuit protection: inputs and output reverse-polarity protected; outputs overcurrent and short-circuit protected
Weight: 2.2oz (62 g)
Enclosure rating: IP 67
Items supplied: Fastening nuts (2 x), Reflector target, reflection tape



DIMENSIONS

1. Connection Cable
2. LED status indicator
3. Sensitivity control
4. Mounting nuts



CONNECTIONS

Brown - +10-30VDC

Blue - 0V

Black - Output (NPN open collector)

White - Connect to Brown : Light Operate

Connect to Blue : Dark Operate