

# LTD-12300PO-M12

M12 Laser Diffuse-Reflective Photoelectric Sensor



M12 Laser Diffuse-Reflective Photoelectric Sensor  
Model LTD-12300PO-M12 · Sn 300 mm · PNP / NO · M12 4-pin

The LTD-12300PO-M12 is a cylindrical M12 diffuse-reflective photoelectric switch that uses a visible red laser beam to detect the presence of an object directly in front of the sensing face. Light emitted by the sensor is reflected back from the target into the receiver; when enough light returns, the solid-state PNP output switches to its normally-open active state. The compact tight laser spot suits detection of small parts and precise edge/position sensing on conveyors, assembly lines, packaging machinery and general factory automation.

General / Identification	
Model	LTD-12300PO-M12
Sensor type	Laser diffuse-reflective photoelectric switch
Housing style	M12 cylindrical threaded barrel
Mounting thread	M12 × 1
Light source	Visible red laser, 660 nm (estimate — confirm against unit)
Beam / spot size	approx. 2–3 mm (estimate — confirm against unit)

Electrical	
Supply voltage	10–30 V DC
Output type	PNP (sourcing)
Output function	Normally Open (NO)
Max. load current	150 mA
No-load / residual current	not found — verify
Circuit protection	Reverse-polarity & short-circuit (estimate — typical for series)

Connections / Terminals	
Connection	M12 connector, 4-pin
Pin 1 (BN)	V+ supply
Pin 3 (BU)	0 V
Pin 4 (BK)	PNP output (NO)
Wiring note	3 wires used on a 4-pin M12 (estimate — verify on unit)

Performance / Functional	
Sensing mode	Diffuse reflection (emitter + receiver in one head)
Sensing distance Sn	300 mm
Range adjustment	Sensitivity potentiometer, approx. 2–300 mm (estimate)
Status indicator	Output (load) LED (estimate — confirm against unit)
Response frequency	not found — verify

Mechanical & Environmental	
Housing material	Brass, nickel-plated (estimate — confirm against unit)
Body length	approx. 58 mm + connector (estimate)
Net weight	approx. 50 g (estimate — confirm against unit)
Protection rating	IP67 (estimate — typical, verify)
Operating temperature	-25 °C to +55 °C (estimate — typical, verify)

Compliance / Ordering	
Marking	CE (marked on unit)
RoHS	Compliant (estimate — verify)
Order code	LTD-12300PO-M12
Code key	12 = M12 · 300 = 300 mm · P = PNP · O = NO

## Typical applications

Object presence / absence detection · part counting on conveyors · small-component and edge detection · position and end-stop sensing · packaging, labelling and assembly automation.