



ILEE® ONE-WAY LASER LIGHT BARRIER LS02 M18/M12

CHARACTERISTICS

- Short response time
- Choice of response to light and dark signal
- Suppression of interfering light
- Long range
- Transmitter can be focussed
- M18 sensor housing/M12 sensor connector
- Solid construction
- Watertight (IP65)
- Wide range of operating voltage

APPLICATIONS

- Time measurement
- Data transmission
- Object detection

TECHNICAL DATA TRANSMITTER				ORDER NO. 0072-05-92-01
One-way laser light barrier LS02				Unit
Operating voltage	12	–	24 ±10%	VDC
Max. operating current	40 ¹⁾		35 ¹⁾	mA
Typical laser turn-on delay (Disable pos. edge)	920		900	µs
Typical jitter of laser's turn-on delay	15		12	µs
Typical laser turn-off delay (Disable neg. edge)	65		77	µs
Typical jitter of laser's turn-off delay	3		2	µs
Optical power		≤1 ²⁾		mW
Laser class		2 ²⁾		–
Wavelength		635 ... 680		nm
Focus range		10 – infinite		mm
Typical beam size at output		5 x 2		mm
Typical modulation frequency		455		kHz
Weight		42		g
Operating temperature		–20...+40		°C
Storage temperature		–40...+85		°C

Unless otherwise noted, all data are valid at room temperature (21°C) and under normal operating conditions.

¹⁾ Laser on (Laser Disable = V_{cc} or open)

²⁾ Standard version; extended range available on request.

TECHNICAL DATA RECEIVER				ORDER NO. 0072-05-92-02
One-way laser light barrier LS02				Unit
Operating voltage	12	–	24 ±10%	VDC
Max. operating current ¹⁾	16		12	mA
Load approx. 100 mA ³⁾ :				
Typical rise time, t _{rise}	2		1	µs
Typical fall time, t _{fall}	6		10	µs
Typical response delay (rising edge)	11		10	µs
Typical release delay (falling edge)	14		18	µs
Dropout voltage at output	1.2		0.9	V
Load approx. 200 mA ⁴⁾ :				
Typical rise time, t _{rise}	3		1	µs
Typical fall time, t _{fall}	4		6	µs
Typical response delay (rising edge)	11		10	µs
Typical release delay (falling edge)	11		15	µs
Dropout voltage at output	1.7		1.3	V
Typical jitter of response delay (rising edge)	1		1	µs
Typical jitter of release delay (falling edge)	3		2	µs
Max. PNP output load ²⁾		200		mA
Weight		32		g
Operating temperature		–20...+40		°C
Storage temperature		–40...+85		°C

Unless otherwise noted, all data are valid at room temperature (21°C) and under normal operating conditions.

¹⁾ without output load

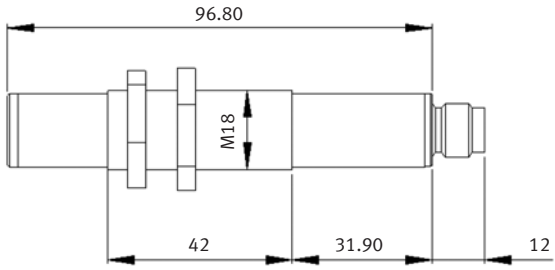
²⁾ Output is short-circuit protected

³⁾ 110Ω load at 10.8VDC supply voltage; 250Ω load at 26.4VDC supply voltage

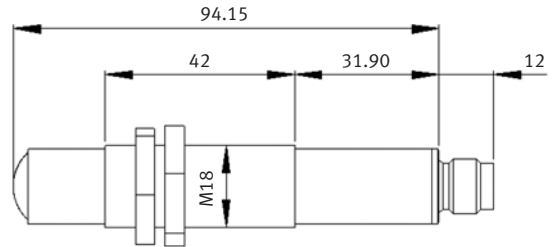
⁴⁾ 54Ω load at 10.8VDC supply voltage; 150Ω load at 26.4VDC supply voltage

DIMENSIONS (MM)

Transmitter:
Alu anodized/Polyamid

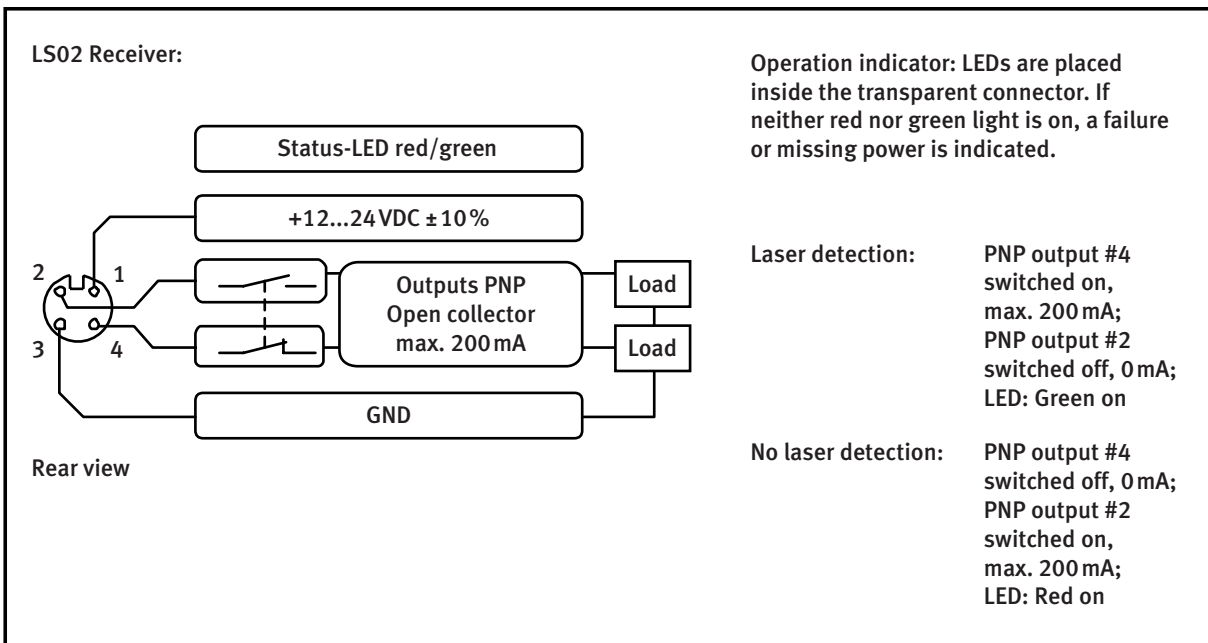
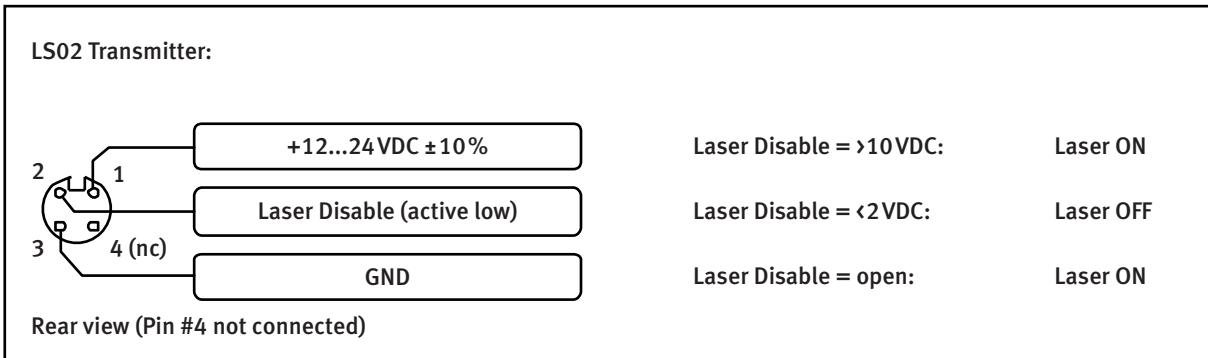


Receiver:
PVC/Polyamid



Connector: Sensor connectors series 713 (M12 x 1), male receptacle, 4-pole, transparent
(matching female cable connectors available on request)

WIRING DIAGRAM



Laser beams can cause damage to your eyes.
The user is responsible to observe the local safety regulations.

Mistakes and technical changes reserved.

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