

**Photoelectric Reflex Switch**  
with background suppression  
**Operating Instructions**



LASER IRRADIATION. DO NOT LOOK DIRECTLY INTO THE BEAM!  
LASER PROTECTION CLASS 2  
MAX. POWER 1 mW  
PULSE DURATION: 1 ms  
WAVE LENGTH: 650 nm

Tested according to:  
EN 60825: 1997

CDRH accession number 0312245

**Safety Specifications**

- ▶ Read the operating instructions before starting operation.
- ▶ Connection, assembly, and settings only by competent technicians.
- ▶ Protect the device against moisture and soiling when operating.
- ▶ No safety component in accordance with EU machine guidelines.

⚠ **CAUTION:** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

**Proper Use**

The WLG 190T High Grade photoelectric reflex switch is an optoelectronic sensor and is used for detection of optical, non-contact detection of objects, animals, and people.

**Starting Operation**

- Select switching function; [Lon]: light-switching; if light received, output (Q) switches; [don]: dark-switching; if light interrupted, output (Q) switches;

If required, set a time delay [dLY] (0 to 10 s).

**Setting of mode, timer, L/D and display**

B = operation, TI = Teach-in, RUN = run mode.

**Only for versions with connecting cable:**

The following apply for connection in **br**=brown, **blu**=blue, **blk**=black, **gra**=gray.

Connect cables.

**With following connectors only:**

Connect and secure cable receptacle tension-free.

Use mounting holes to mount sensor to holders (supplied).

Maintain direction in which object moves relative to sensor.

Connect photoelectric proximity switch to operating voltage (see type label).

**2 Teach-in:**

1-point teach-in:

Align the sensor to the reflector.

Press the teach-in button until the [tch] appears in the display. LED yellow lights for a short time and the [tch] display blinks in the display.

Release the teach-in button.

A numeric value appears in the display. Place the object in the light beam; the object is detected.

Precise setting:

The taught sensitivity can be corrected using the [ASc] or [tnd] function.

If required, external teach-in (ET) via control line

PNP: Control wire ET to L+.

NPN: Control wire ET to M.

**3 Function check:**

Simulate changing the object; check functioning at the outputs.

If device does not function correctly, repeat startup procedures (Teach-in).

**Maintenance**

SICK photoelectric switches do not require any maintenance. We recommend that you clean the optical surfaces and check the screw connections and plug-in connections at regular intervals.

**SICK**

0405 GO

**SENSICK**  
**WLG 190T**  
**High Grade**

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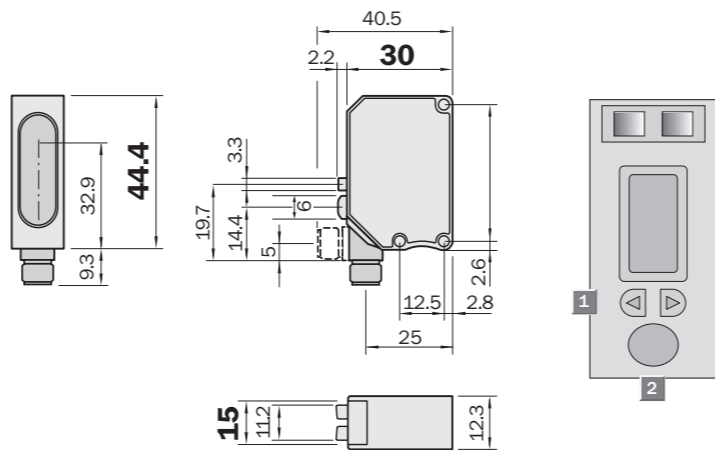
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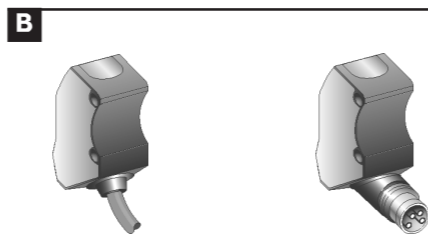
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E-Mail: info@sick.usa.com

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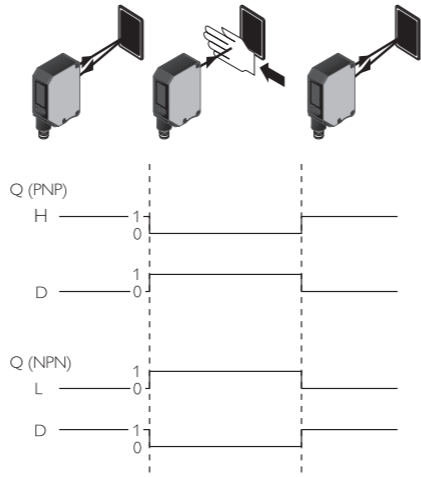
**A**  
**WLG 190T**



- Select mode button
- Teach-in button



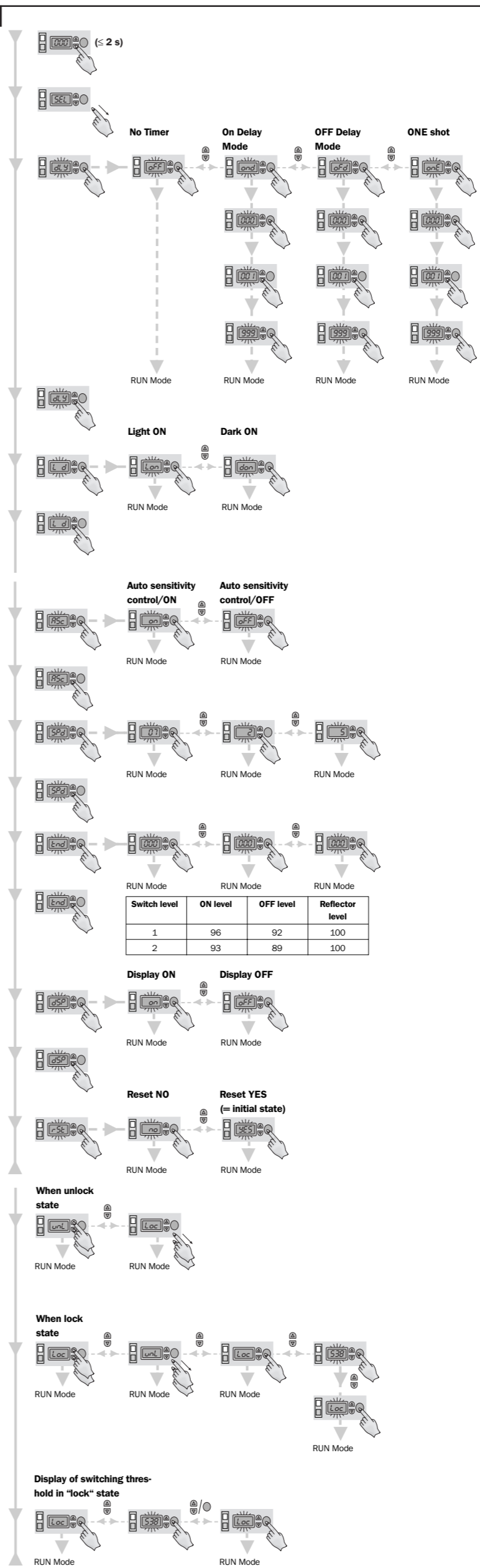
**1**



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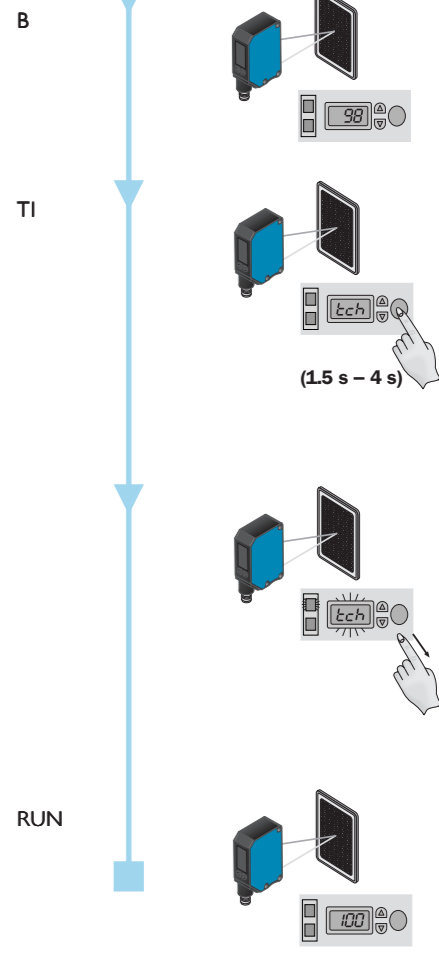
**1**



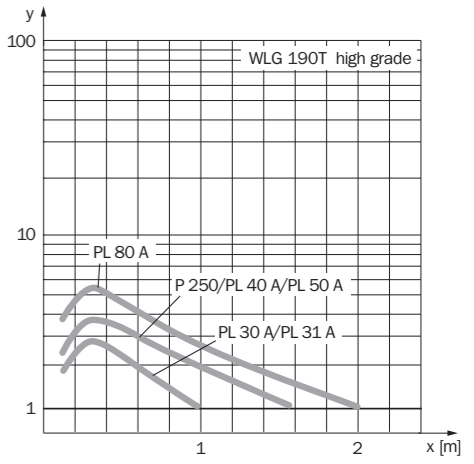
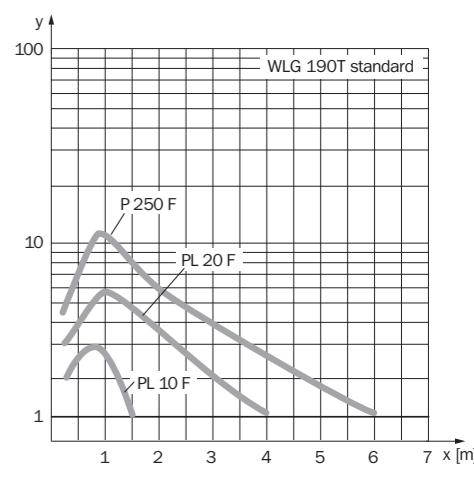
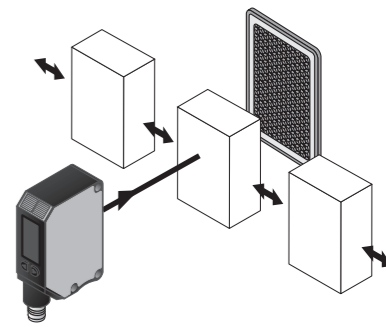
Switch level	ON level	OFF level	Reflector level
1	96	92	100
2	93	89	100

Lock: The sensor is protected from inadvertent adjustments.  
Unlock: The sensor can be programmed.

**2**



**3**



<sup>1)</sup> Limits  
Residual ripple max. ± 10 %  
<sup>2)</sup> A = Vs connections reverse polarity protected  
B = Output Q protected against short circuits