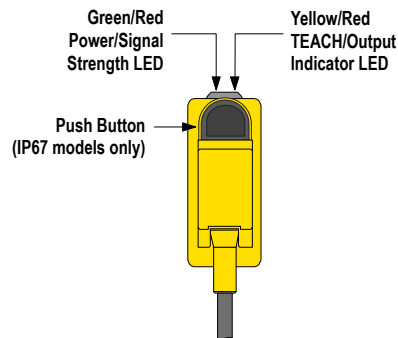


**NOTE:**

- Exposure to direct sunlight can affect the sensor's ability to accurately compensate for changes in temperature.
- If the sensor is measuring across a temperature gradient, the compensation will be less effective.
- The temperature warmup drift upon power-up is less than 7% of the sensing distance. After 5 minutes, the apparent switchpoint will be within 0.6% of the actual position. After 25 minutes, the sensing position will be stable.

Sensor Programming

Two TEACH methods may be used to program the sensor:

- Teach individual minimum and maximum limits, or
- Use Auto-Window feature to center a sensing window around the taught position

The sensor may be programmed either via its push button, or via a remote switch. Remote programming also may be used to disable the push button, preventing unauthorized personnel from adjusting the programming settings. To access this feature, connect the white wire of the sensor to 0V dc, with a remote programming switch between the sensor and the voltage.

Figure 3. Sensor Features

Programming is accomplished by following the sequence of input pulses (see programming procedures starting on page 4). The duration of each pulse (corresponding to a push button “click”), and the period between multiple pulses, are defined as “T”:

$$0.04 \text{ seconds} < T < 0.8 \text{ seconds}$$

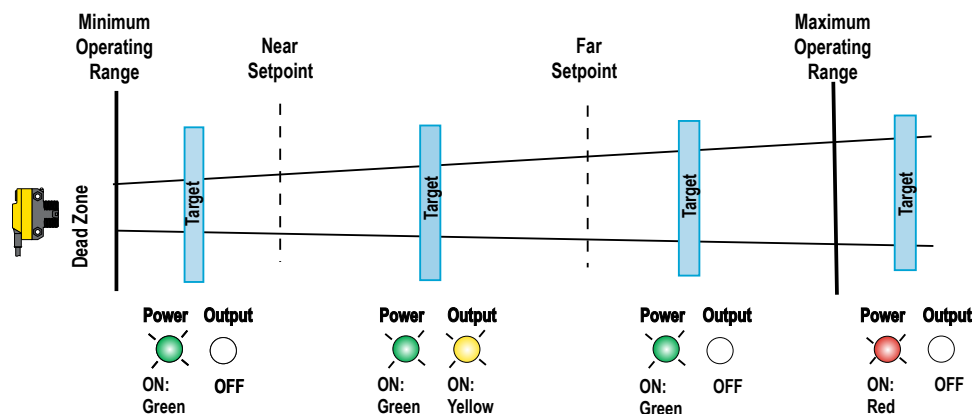


Figure 4. TEACH Interface

Status Indicators

Power ON/OFF LED	Indicates	Output/Teach LED	Indicates
OFF	Power is OFF	OFF	Target is outside window limits (normally open operation).
ON Red	Target is weak or outside sensing range.	Yellow	Target is within window limits (normally open operation).

Power ON/OFF LED	Indicates		Output/Teach LED	Indicates
ON Green	Sensor is operating normally, good target.		ON Red (solid)	In Teach Mode, waiting for first limit.
			ON Red (flashing)	In Teach Mode, waiting for second limit.

Teaching Minimum and Maximum Limits

General Notes on Programming

- The sensor will return to RUN mode if the first TEACH condition is not registered within 120 seconds.
- After the first limit is taught, the sensor will remain in PROGRAM mode until the TEACH sequence is finished.
- To exit PROGRAM mode without saving any changes, press and hold the programming push button > 2 seconds (before teaching the second limit). The sensor will revert to the last saved limits.

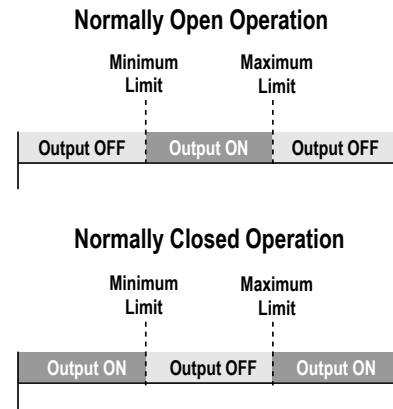


Figure 5. Teaching independent minimum and maximum limits

	Procedure		Result
	Push Button $0.04 \text{ seconds} \leq \text{"Click"} \leq 0.8 \text{ seconds}$	Remote Line $0.04 \text{ sec} < T < 0.8 \text{ sec}$	
Program- ming Mode	Press and hold push button	No action required; sensor is ready for 1st limit teach	Output LED: ON Red Power LED: ON Green (good signal) or ON Red (no signal)
Teach First Limit	Position the target for the first limit	Position the target for the first limit	Power LED: Must be ON Green
	"Click" the push button	Single-pulse the remote line	Teach Accepted Output LED: Flashing Red Teach Unacceptable Output LED: ON Red
Teach Sec- ond Limit	Position the target for the second limit	Position the target for the second limit	Power LED: Must be ON Green
	"Click" the push button	Single-pulse the remote line	Teach Accepted Output LED: Yellow or OFF Teach Unacceptable Output LED: Flashing Red