

U-GAGE™ T30 Series with Analog and Discrete Outputs

Teaching Identical Limits for Both Analog and Discrete Outputs Simultaneously

To set both the analog and the discrete outputs at exactly the same limits, both may be set simultaneously.

1. Push and hold either the Analog or the Discrete programming push button until the yellow Output LED turns ON. Push and hold the other push button until its yellow Output LED turns ON. The sensor is waiting for the first limit.
2. Position the target for the first limit and “click” either programming push button. Both yellow LEDs will flash to acknowledge receiving the first window limit; the sensor is now waiting for the second limit.
3. Position the target for the second limit and “click” either button again to teach the sensor the second limit.
4. The green Power LED will come ON to indicate that the sensor will now function in normal RUN mode; both yellow Output LEDs will remain ON if the outputs are conducting within the window limits.

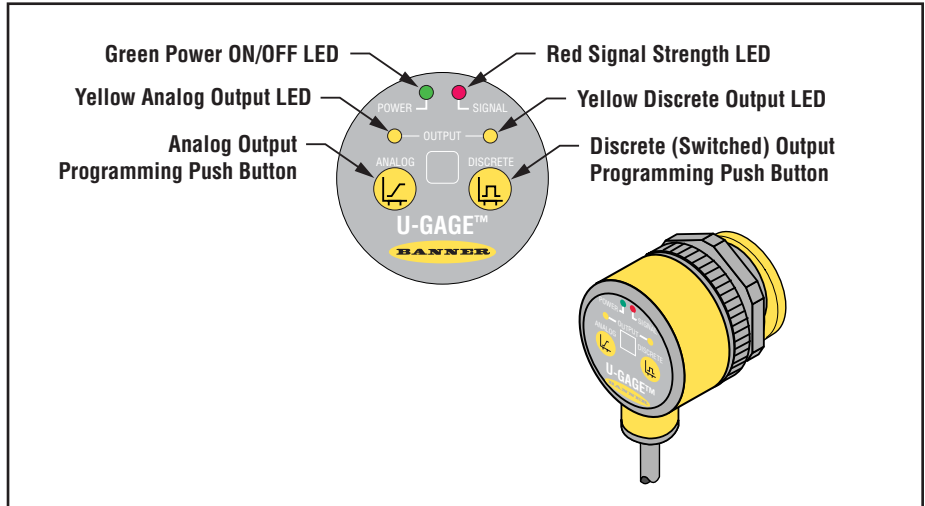


Figure 1. U-GAGE T30 Series sensor programming push buttons and indicators

General Notes on Programming:

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

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Remote Programming

To program the sensor remotely or to disable the keypad, the Remote Programming function may be used. Disabling the keypad prevents anyone on the production floor from adjusting any of the programming settings. Connect the gray wire of the sensor to +12 to 24V dc, with a remote programming switch connected between them. NOTE: The impedance of the remote teach input is 55 kΩ.

Programming is accomplished by following the sequence of input pulses. The duration of each pulse (corresponding to a push button “click”), and the period between multiple pulses, are defined as: $0.04 \text{ seconds} < T < 0.8 \text{ seconds}$.

- 1 pulse: Programs first discrete limit. Wait $> 0.8 \text{ sec}$. Next pulse programs second discrete limit.
- 2 pulses: Programs first analog limit. Wait $> 0.8 \text{ sec}$. Next pulse programs second analog limit.
- 3 pulses: Programs first analog and discrete limit. Wait $> 0.8 \text{ sec}$. Next pulse programs second analog and discrete limit.
- 4 pulses: Disables (locks out) or enables the keypad for security.

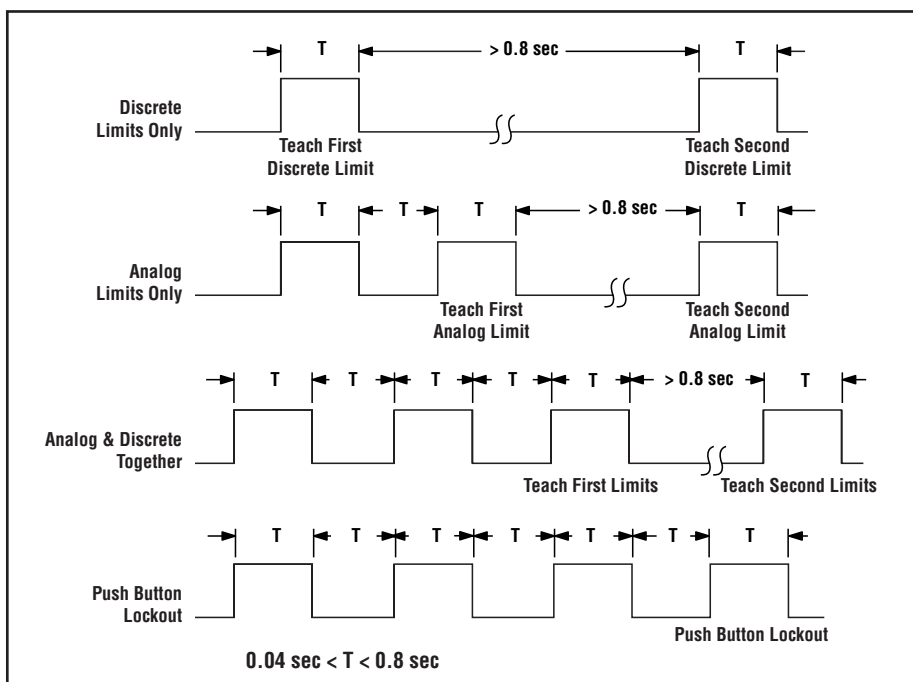


Figure 2. Timing programs for remote TEACH programming

NOTE: Hold the Remote line high $> 2 \text{ seconds}$ (before teaching the second limit) to exit PROGRAM mode without saving any changes. The sensor will revert to the last saved program.