Advanced Options

SMARTEYE® EZ-PRO™

The SmartEye® EZ-PRO™ is equipped with the following 3 optional features that can help to adapt the sensor to specific application requirements.

Lock   When this feature is enabled the sensor becomes tamper proof.

ACT™   (Automatic Contrast Tracking) - When this feature is enabled the sensor will automatically track with a variety of changing conditions by adjusting itself during normal operation.

Timer   When this "off" delay timer is enabled, the output duration is extended by 10, 25, or 50 miliseconds. This timing function helps to prevent eratic triggering of the printer.

DISPLAY STATUS OF SELECTABLE OPTIONS

Press and hold both *Blue* and *Yellow* buttons simultaneously for 3 seconds. The 5-LED bargraph will go into a flashing routine. When completed, the 5-LED bargraph will switch from functioning as a contrast indicator to a status indicator. Now the status of the selectable options will be displayed and the amber LED option status indicator will be lit.

SELECT OPTION TO BE ALTERED

Step to the desired function to be toggled to the opposite state by "tapping" the *Blue* button. The first "tap" will step to the "lock" select function. To indicate the "lock" function has been selected, the #5 LED will blink. The next "tap" will step the blinking of the indicator to the #4 LED. Another "tap" of the *Blue* button will step the blinking of the indicator to the #3 LED. Another "tap" to the #2 LED and, finally, the fifth "tap" will select the #1 LED. Once the blinking LED is next to the option to be changed, depress the *Yellow* button to enter your choice into memory. The sensor will then display the choice breifly before returning to normal operation. **This sequence must be repeated for each function to be altered.** If there is no change in the status of any of the control functions, tap the *Blue* button a sixth time or wait 5 seconds and allow the sensor to automatically return to normal operation.

LED	FEATURE	On/Off	STATUS
#5 LED	Lock	On	The manual up/down and Auto-Set™ adjustments are disabled.
		Off	Manual adjustments are enabled.
#4 LED	ACT™	On	ACT™ is enabled.
		Off	ACT™ is disabled.
#3 LED	10ms Timer	On	10ms Timer/Pulse Stretcher is enabled.
		Off	10ms Timer/Pulse Stretcher is disabled.
#2 LED	25ms Timer	On	25ms Timer/Pulse Stretcher is enabled.
		Off	25ms Timer/Pulse Stretcher is disabled.
#1 LED	50ms Timer	On	50ms Timer/Pulse Stretcher is enabled.
		Off	50ms Timer/Pulse Stretcher is disabled.

FACTORY PRESET OPTION MENU

LED	FEATURE	On/Off	STATUS
#5 LED	Lock	Off	Lock disabled, Manual and Auto-Set™ adjustments are enabled.
#4 LED	ACT™	Off	ACT™ is disabled.
#3 LED	10ms Timer	Off	10ms Timer/Pulse Stretcher is disabled.
#2 LED	25ms Timer	Off	25ms Timer/Pulse Stretcher is disabled.
#1 LED	50ms Timer	Off	50ms Timer/Pulse Stretcher is disabled.

LOCK FUNCTION

When enabled (#5 LED lit), the *Blue* (down) and *Yellow* (up), manual and Auto-Set™ commands will be disabled. This will provide tamper-proof operation. To toggle the lock function to the opposite state, hold in the both buttons for 3 seconds. Then, tap the *Blue* button once. The #5 LED should be blinking. Now, push and hold the *Yellow* button for one second.

ACT™ (AUTOMATIC CONTRAST TRACKING)

When enabled (#4 LED lit), the sensor will automatically track with a variety of changing conditions by adjusting itself during normal operation. For example, the sensor will continue to maintain the proper setting to compensate for changing detrimental conditions:

1. Lens or reflector contamination.
2. Scratched or damaged lens.
3. Broken fibers in light guides.
4. LED light source or thermal drift.
5. Target variations such as position, orientation or color.
6. Diminishing contrast deviation/shift caused by high spped events, particularly when input duty cycles are severely offset.

The dynamic adjustments of the sensor maintains excess gain and contrast deviation. **As automatic adjustments occur, there will be an occasional flash of the bright yellow action alert indicator. Note:** On rare occasions (usually associated with low contrast sensing or product inspection applications) the ACT™ self-adjusting may have to be **disabled**.

TIMER FUNCTION

The optional "Pulse Stretcher" timer can be activated to help prevent false triggering of the printer in difficult sensing applications. The timer will extend the sensors output duration by either 10, 25, or 50 milliseconds. (not additive) Therefore the time duration of the gap between objects must be less than the timers duration. There are 3 selectable time durations which can be enabled **only** one at a time. They can be activated by togggling LED #3, #4, or #5. (Note selectable options as listed above) **Important:** When triggering off trailing edge of object, the timer must be disabled.