Mark•Eye™ SETUP INSTRUCTIONS

Optimized for the Detection of Registration Marks on Translucent or Transparent Web Materials

Web color/background is Lighter than the mark *(See Figure A)*

Position the detection zone of the sensor between the registration marks and press the "LIGHTER THAN MARK" button to initiate the AUTOSET™ routine.

The green LED AUTOSET™ indicator will rapidly blink until the proper setting is achieved. The red LED output indicator and output transistors will turn "OFF". When the mark passes through the detection zone, the red LED output indicator and output transistors will turn "ON" for the duration of time that the mark is in view.

NOTE: Detection of a Dark colored mark on a light colored background is impossible if the light source can not penetrate through the light colored background. If this condition occurs during a light colored background AUTOSET™ routine, both the red and green LEDs will flash twice.

Web color/background is Darker than the mark *(See Figure B)*

Position the detection zone of the sensor between the registration marks and press the "DARKER THAN MARK" button to initiate the AUTOSET™ routine.

The green LED AUTOSET™ indicator will rapidly blink until the proper setting is achieved. The red LED output indicator and output transistors will turn "OFF". When the mark passes through the detection zone, the red LED output indicator and output transistors will turn "ON" for the duration of time that the mark is in view.

Inverting the Output

Depress both buttons for 3 seconds.

Pulse Stretcher

The Markeye sensor can be programmed to provide a 15-millisecond pulse stretcher timing function. To determine if the pulse stretcher is enabled, during initial power-up the AUTOSET™ LED will rapidly flash twice, verifying that the pulse stretcher is enabled.

Enabling or Disabling the Pulse Stretcher

To toggle the status of the pulse stretcher to the opposite state:

1. Remove power from the sensor.
2. Depress and hold both buttons simultaneously and apply power.
3. After applying power, note that the AUTOSET™ LED will flash; release both buttons.
4. Depress the "LIGHTER THAN MARK" to toggle the pulse stretcher to the opposite state.
5. Remove power from the sensor.
6. Whenever power is applied, the pulse stretcher will be enabled and the AUTOSET™ LED will flash twice. The pulse stretcher can be disabled when these steps are repeated.

NOTE: The factory's default setting for the pulse stretcher is the disabled state.

Dark Mark on a Light Web (Figure A)

Light Mark on a Dark Web (Figure B)

SPECIFICATIONS

SUPPLY VOLTAGE
- 10 to 30 VDC
- Polarity Protected

CURRENT REQUIREMENTS
- 45 milliamps (exclusive of load)

OUTPUT TRANSISTORS
- (1) NPN and (1) PNP output transistors
- Sensor outputs can sink or source up to 150 milliamps (current limit)
- All outputs are continuously short-circuit protected

REMOTE AUTOSET™ INPUT
- Opto isolated momentary sinking input (10 milliamps)

RESPONSE TIME
- Light state response = 100 microseconds
- Dark state response = 100 microseconds

LED LIGHT SOURCE
- Pulse modulated high intensity white LED

PUSHBUTTON CONTROL
- One pushbutton set-up
- Automatic set-up routines based on web opacity
- Simultaneously pushing both buttons inverts the output
- On power-up, simultaneously pushing both buttons enables the program mode, allowing the pulse stretcher to be enabled or disabled

HYSTERESIS
- Minimal hysteresis promotes detection of low contrast registration marks

LIGHT IMMUNITY
- Responds to sensor's pulse modulated light source … immune to most ambient light

INDICATORS
- Green AUTOSET™ LED flashes when AUTOSET™ routine is activated and stays illuminated when AUTOSET™ is completed
- Red Output LED illuminates when sensor's output transistors are "ON"
- On power-up, the AUTOSET™ LED flashes twice when the pulse stretcher is enabled

AMBIENT TEMPERATURE
- -40°C to 70°C (-40°F to 158°F)

RUGGED CONSTRUCTION
- Chemical resistance to harsh cleaners, such as detergents, alcohols, and ketones
- Waterproof ratings: NEMA 4 and IP66
- Conforms to heavy industry grade CE and UL requirements

SELECTABLE PULSE STRETCHER
- Provides a minimum of 10 milliseconds output duration

Product subject to change without notice.

Sensor Selection Guide

Model	Description
MEWL	White LED, 5-conductor cable
MEWLC	White LED, 5-pin micro connector on a 6" pigtail

Cable Selection Guide (5 Wire)

Model	Micro Cable (M12) Description		
GSEC-2MU	6.5 ft.	(2.0m)	Low Cost, Unshielded
GSEC-5MU	16 ft.	(5.0m)	Low Cost, Unshielded
GSEC-6	6 ft.	(1.8m)	Shielded Cable
GSEC-15	15 ft.	(4.6m)	Shielded Cable
GPSEC-15	15 ft.	(4.6m)	Shielded Cable

DIMENSIONS

Mark•Eye™
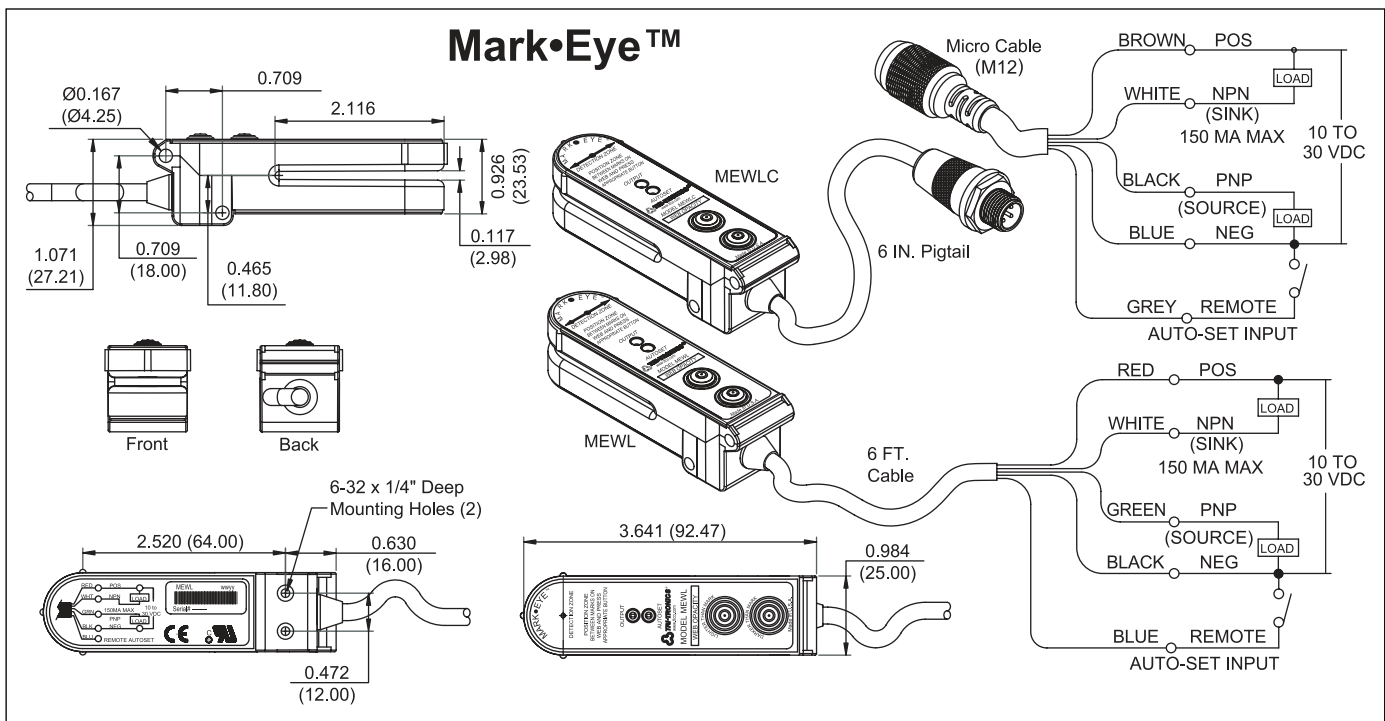
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