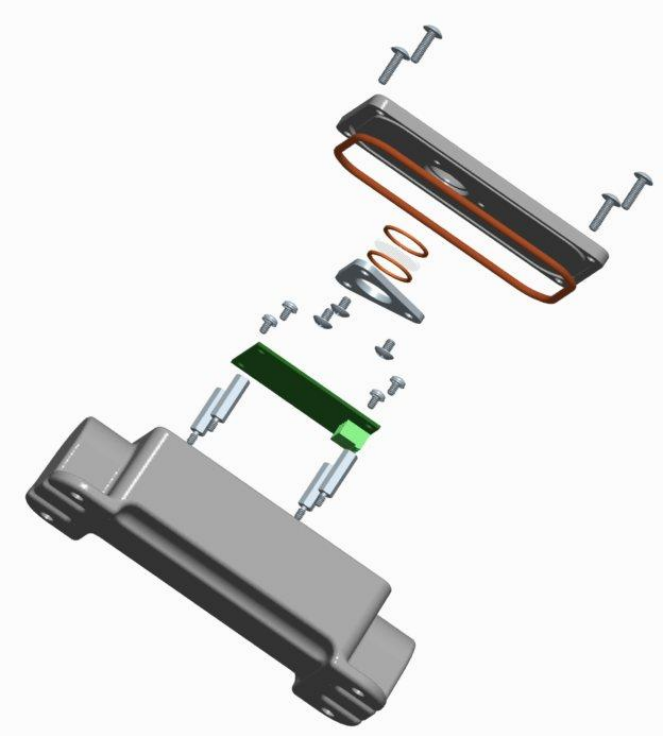
INSTALLATION AND MAINTENANCE MANUAL FOR

D2566000PEC

Photocell for use in D266A57CTR and D1RWC1xx09CTR



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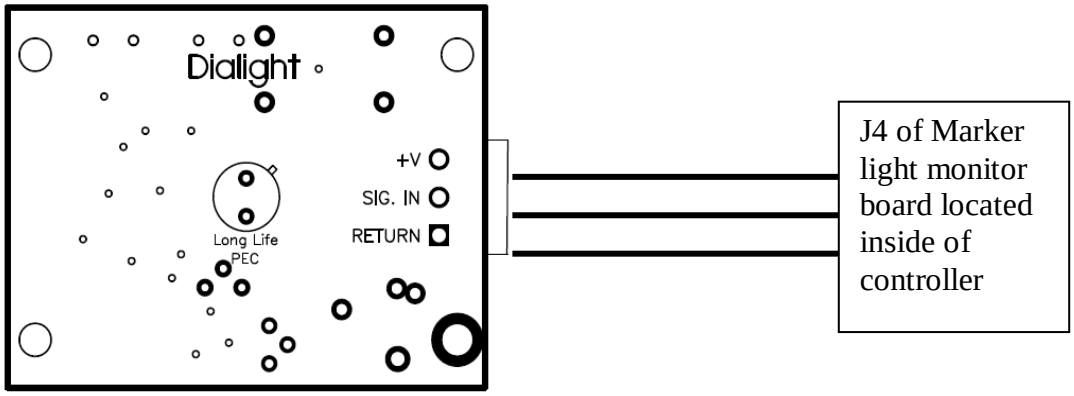
Overview:
The Dialight designed photocell is a long life photocell that requires no maintenance or adjustment during the life of the product or during the installation process. It has reverse polarity protection and additional circuitry for miss-wiring. The photocell can be used with any of the above mentioned P/N's and the only connections required are wiring from the controller to the photocell.

The photocell comes supplied with 1 end threaded for ¾ NPT Conduit, which is recommended for installing the photocell.
NOTE: If a cable without conduit is used in a hazardous location installation then the cable at minimum MUST have either a shield or braid that is properly connected to body of the photocell and to the enclosure of the controller it is being installed to. Failure to properly ground or use a cable without the shield or braid will void all warranties and the product could be subject to premature failures.

The Photocell requires 3 connections to be made to the inside of the photocell itself and 3 inside the controller



TOP VIEW

+V = 12Vdc (supplied from controller)
SIG. IN = sense voltage relayed to controller
Return = ground

Mode Operation:

The Photocell will adjust the signal voltage according to the amount of light it senses. The tables below will show photocell voltages in all modes of operation.

Note: That it will typically take 45 seconds for a transition to occur at the controller once the transition voltage is obtained.

Table 1 – Photocell Transition Inducing Voltages:

SIG. IN - RETURN volts	RED Only Tower config.	Dual Red/White Tower config.	Hi Int. Tower config.
Rises to 1.53	Night-Day transition		Twi-Day transition
Falls to 1.53	Day-Night transition		Day-Twi transition
Rises to 1.48		Night-Day transition	Night-Twi transition
Falls to 1.44		Day-Night transition	Twi-Night transition

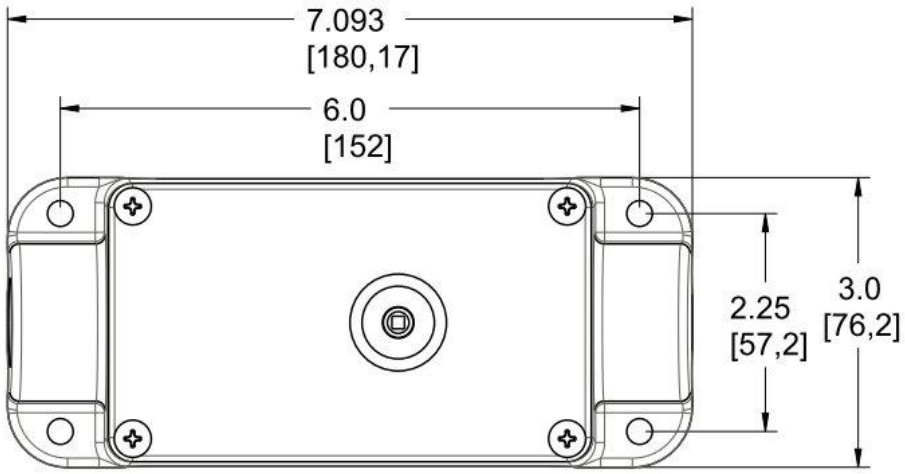
Table 2 - Typical voltage readings from Signal In to Return are as follows:

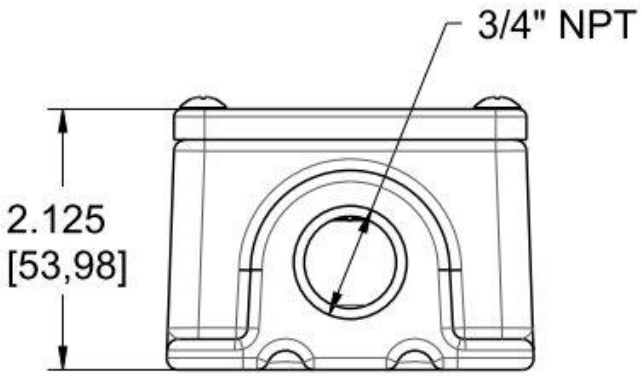
Daytime	Nighttime
3.0 ± 1 Volts	1.4 ± 0.5 Volts

Table 3 - Typical voltage readings from V+ to Return are as follows:

Daytime	Nighttime
9.3 ± 0.5 Volts	10.4 ± 0.5 Volts

Dimensional drawing:





Photocell Troubleshooting:
To resolve most problems, ensure the photocell is facing North, and is free of any obstructions. If problems persist, see the troubleshooting tables below:

Table 4 – Photocell alarms present on Controller

Problem	Explanation of Problem	Test/Action	Solution
AL4 on controller and/or AL5 on the controller.	AL4 indicates that the photocell is not being detected by the controller. AL5 indicates that the controller has not detected a transition change in over 16 hours.	Ensure that Photocell connections are present and wire connection positions are consistent at J4 of the side marker board and at the photocell. Using a DC voltage meter, perform measurements and compare to specified voltages as listed in Mode Operation section.	Correct any wiring issues found. If voltages measured are not consistent with specified voltages at Mode Operation section, replace photocell.

REVISION HISTORY

REV	ECO No.	DRN	CKD	APP	QA	CM	DATE
A	----	SA	DW	BAM	JP	JN	6-14-13
B	17009	CV	SA	DW	JP	JN	3-19-14
C	64574	TLD	AV	AR	YS	JN	11-13-19