

TR-PHOTO-W Series

Intelligent Plug-in Photoelectric Smoke Detectors

Triga's TR-PHOTO-W Series intelligent plug-in smoke detectors are designed for both performance and aesthetics. A new modern, sleek, contemporary design and enhanced optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources in accordance with more stringent code standards.

The TR-PHOTO-W Series detector sensitivity can be programmed in the control panel software. Sensitivity is continuously monitored and reported to the panel. Point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector location for selective maintenance when chamber contamination reaches an unacceptable level.

Dual electronic thermistors add 135°F (57°C) fixed temperature thermal sensing on the TR-PHOTO-T-W. The TR-PHOTO-R-W is a remote test capable detector for use with duct detector housings.



TR-PHOTO-W In TR-B300-6 base

FEATURES & BENEFITS

- New modern profile for improved aesthetics
- Stable communication technique with noise immunity
- Low standby current
- Two-wire SLC connection
- Optional remote, single-gang LED accessory
- Dual LED design provides 360° viewing angle
- Remote test feature from the panel
- Built-in functional test switch activated by external magnet
- Built-in tamper-resistant feature
- Sealed against back pressure
- Expanded color options
- Optional relay, isolator, and sounder bases
- Plugs into separate base for ease of installation and maintenance

DETECTOR SPACING AND APPLICATIONS

Triga recommends spacing detectors in compliance with NFPA 72. In low airflow applications with smooth ceiling, space detectors 30 feet (9m). For specific information regarding detector spacing, placement, and special applications refer to NFPA 72.

INSTALLATION

The TR-PHOTO-W Series plug-in detectors use a separate base to simplify installation, service, and maintenance. Installation instructions are shipped with each detector. Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep.

NOTE:

- Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring.
- When using relay or sounder bases, consult the installation sheet for device limitations between isolator modules and isolator bases.

ORDERING INFORMATION

TR-PHOTO-W: White, low-profile intelligent photoelectric sensor.

TR-PHOTO-IV: Ivory, low-profile intelligent photoelectric sensor.

TR-PHOTO-T-W: White, same as the TR-PHOTO-W, but includes a built-in 135°F (57°C) fixed-temperature thermal device.

TR-PHOTO-T-IV: Same as TR-PHOTO-T but in Ivory.

TR-PHOTO-R-W: White, low-profile intelligent photoelectric sensor, remote test capable. For use with duct enclosures

TR-PHOTO-R-IV: Ivory, low-profile intelligent photoelectric sensor, remote test capable.

INTELLIGENT BASES

NOTE: Detectors must be mounted to one of the Intelligent Bases listed below

TR-B300-6: White, standard flanged low-profile mounting base.

TR-B300-6-IV: Ivory, standard flanged low-profile mounting base.

TR-B501-WHITE: White, standard European flangeless mounting base.

TR-B501-BL: Black, standard European flangeless mounting base.

TR-B501-IV: Ivory, standard European flangeless mounting base.

TR-B200S-WH: White, Intelligent, programmable sounder base.

TR-B200S-IV: Ivory, Intelligent, programmable sounder base.

TR-B200SR-WH: White, Intelligent sounder base for retrofit applications.

TR-B200SR-IV: Ivory, Intelligent sounder base for retrofit applications.

TR-B200S-LF-WH: White, Low Frequency Intelligent, programmable sounder base.

TR-B200S-LF-IV: Ivory, Low Frequency Intelligent, programmable sounder base.

B200SR-LF-WH: White, Low Frequency Intelligent sounder base for retrofit applications.

TR-B200SR-LF-IV: Ivory, Low Frequency Intelligent sounder base for retrofit applications.

TR-B224RB-WH: White, plug-in relay base.

TR-B224RB-IV: Ivory, plug-in relay base.

TR-B224BI-WH: White, plug-in isolator detector base.

TR-B224BI-IV: Ivory, plug-in isolator detector base.

ACCESSORIES

TR-RA100Z: Remote LED annunciator. 3-32 VDC. Mounts to a U.S. single-gang electrical box.

Technical Specifications

PHYSICAL

Height: 2.0" (51mm) installed in TR-B300-6 base

Diameter: 6.2" (156mm) installed in TR-B300-6 base
4.1" (104 mm) installed in TR-B501 base

Weight: 3.4 oz (95 g)

RAL: 9003

ENVIRONMENTAL

Operating Temperature range:

Photo: 32°F to 122°F (0°C to 50°C)

Photo with Thermal: 32°F to 100°F (0°C to 38°C)

Thermal Ratings: Fixed Temperature Set point:
135°F (57°C)

Sensitivity: UL Applications: 0.5% to 4.0% per foot obscuration.

IP Rating: IP20

COMPATIBILITY

The TR-PHOTO-W series detectors are compatible with the following Triga Series

FACPs:

- TR-2100R / TR-2100B
- TR-2100ECSR / TR-2100ECSB
- TR-R2100R / TR-R2100B

AGENCY LISTINGS AND APPROVALS

For exact certification listings for each model, please reference the respective agency Web site.

UL listed

FM approved

This document is not intended to be used for installation purposes. We try to keep our product information up-to date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

ELECTRICAL RATINGS

Voltage Range: 15 to 32VDC peak

Operating Current @ 24VDC: 200µA (one communication every 5 seconds with green LED blink on communication)

Maximum Current: 4.5mA @ 24VDC (one communication every 5 seconds with amber LED solid on).

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