

Autoscope Solo® Mini-Hub TS2

Easily interfaces up to 8 **Autoscope Solo Pro Machine Vision Processors (MVP)** with NEMA TS2 or 2070 traffic controllers and simply mounts in a standard detector card rack

Description

The **Autoscope Solo** Mini-Hub TS2 Detector Port Master (DPM) provides a convenient, reliable interface between multiple **Autoscope Solo** Pro MVPs and any NEMA TS2 traffic controller. It monitors controller phase colors and gathers detection information from up to eight **Autoscope Solo** Pro MVPs.

The **Autoscope Solo** Mini-Hub TS2 is a single-card device that can stand alone or slide easily into an existing detector rack. Its advanced, microcontroller-based communication circuitry passes real-time detection data or **Autoscope**® traffic alarms to a TS2 Type-1 or Type-2 traffic controller. The inputs and outputs of the Mini-Hub TS2 are easily configured from a PC using the **Autoscope Solo** Software Suite.

Status indications show the operational status health of the Mini-Hub TS2 and the networked Solo Pro MVPs connected at the **Autoscope** Communications Interface Panel (ACIP). Together, the Mini-Hub TS2 and the ACIP form a single point of maintenance for the **Autoscope Solo** detection system in the cabinet by providing connection for a laptop computer and optional video monitor.

The **Autoscope** Mini-Hub TS2 interfaces **Autoscope Solo** Pro MVP detector outputs to the Port 1 Synchronous Data Link Control (SDLC) serial bus of all TS2 cabinets. It is suitable for an **Autoscope Solo** detection system in all TS2 Type-1 cabinets, all TS2 Type-2 cabinets, and in TS1 cabinets with Econolite's ASC/2 and ASC/3 series controllers.



Benefits

- Superior value when compared to other detection systems
- Easily integrates into existing traffic signal cabinet
- One Mini-Hub TS2 serves up to 8 Solo Pro MVPs
- Saves valuable time merging video detection into existing traffic cabinet systems
- Provides the superior capabilities of the Solo Pro MVP to standard and innovative detection applications
- Reduces maintenance and troubleshooting of detection system in cabinet

Features

- 64 detector outputs from 8 **Autoscope Solo** Pro MVPs
- Emulates function of up to 4 Bus Interface Units (BIU)
- Use in all cabinets with TS2 SDLC communications
- Rack or stand-alone installation in traffic cabinet
- Fail-safe mode transmits outputs to traffic controller upon failure
- Self-diagnostics on power-up perform self-test and detect component failure
- Microcontroller technology for reliable long-life performance

I/O Mapping

TS2 specifies the addresses of 4 "racks" of 16 detector channels each, for a maximum of 64 detectors. Unlike a TS2 BIU, the **Autoscope Solo** Mini-Hub TS2 can emulate the function of any or all of these racks without any hardware adjustment.

In addition, the **Autoscope Solo** Mini-Hub TS2 derives 32 input channels, usually 16 phases of red and 16 phases of green, from the TS2 Type-0 message to the Malfunction Management Unit (MMU). This simple input and output mapping allows standardized cabinet wiring and simple menu-driven programming of the **Autoscope** detection system and the controller.

Hardware

The **Autoscope Solo** Mini-Hub TS2 slides freely into rack card guides having a nominal slot width of 0.075 in. and a maximum slot width of 0.125 in. The front panel is minimally 0.090 in.

sheet aluminum finished with a durable protective coating. An aluminum handle on the front panel allows easy removal from a rack. Nominal outer dimensions of the handle are 1 in. x 2½ in. The unit may be inserted or removed from a powered detector rack.

The Port 1 SDLC bus connector on the front panel has female gold-plated contacts and latching blocks to mate with a male 15-pin D-type cable connector equipped with spring latches (Amp part number 745012-1 or equivalent). Four tri-color indicators show the status of communications and the health of four Solo MVPs simultaneously for easy set up and maintenance. A switch changes these same indicators to the next four Solo MVPs. Two red LED indicators show transmit and valid data status of the SDLC bus. Sixteen red LED indicators show the state of each of 32 input or 64 output channels as selected in turn by the switch.

NEMA TS2 Compatibility

The **Autoscope Solo** Mini-Hub TS2 DPM meets the BIU requirements of Section 8 and all other applicable sections of the NEMA TS2 Publication Standard. It performs specified functions under the environmental conditions in Section 2. It can be installed in a TS2 cabinet from any manufacturer, since the function of the Mini-Hub TS2 is the same as a BIU.

Autoscope Solo Detector Network

The **Autoscope Solo** Mini-Hub TS2 is the detector port master for the local **Autoscope Solo** detector network.

The Mini-Hub TS2 can support up to 8 Solo Pro MVPs by regular polling for the current state of detectors in each **Autoscope Solo** Pro MVP. This data is then relayed to the controller over the Port 1 SDLC serial bus.

TS2 Capability

- Fully complies with NEMA TS2 Publication Standard

Connectors

- Female 15-pin metal shell D subminiature connector with latching blocks
- Female 9-pin metal shell D subminiature connector with female jackscrews
- Cinch Jones 50-44A-30M edge connector

Power

- 10 to 28 VDC, 100 mA, not exceeding 5W (Operates at 24 VDC or at 12 VDC as in section 5.3.4.5 of the TS2 standard)

Environmental

- 29.2°F to +165.2°F (-34°C to +74°C)
- 0 to 95% relative humidity (non-condensing over the entire temperature range)

Weight

- 0.5 lb (0.23 kg)

Dimensions

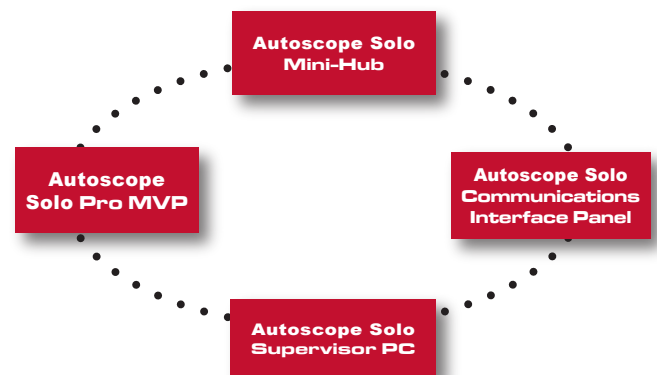
- 5.68 in. H x 2.33 in. W x 7 in. D (114.3 mm H x 59.3 mm W x 177.8 mm D)
- (As illustrated in Figure 6-5 of the TS2 standard weight)

Warranty

- Two-year warranty
- Extended warranty available (five-year warranty package)

Product Support

Product support and training by team of factory-trained **Autoscope** technical support specialists



© 2007 Econolite Control Products, Inc. All rights reserved. Econolite Control Products, Inc. reserves the right to change or update these specifications at any time without prior notification