

# SIU-218

## ITS SERIAL INTERFACE UNIT



The SIU-218 Serial Interface Unit (SIU) performs the interface between Serial Bus #1 of the Advanced Traffic Controller (ATC) and the Input Assembly, Output Assembly, and other devices in an ITS modular cabinet assembly. Its functions include controlling load switch outputs, detector resets, communicating with inductive loop detectors and other devices, and the conditioning and conversion of loop detector inputs for the ATC.

The SIU-218 meets all requirements of the *ASHTO/ITE/NEMA Intelligent Transportation System Standard Specification for Roadside Cabinets* version 01.02.17b.

### SIU-218 ENHANCED FEATURES

- SIU Programming:** Input or Output Assembly mounted address jumpers program the SIU-218 configuration. No other user setup is required.
- Input / Output Pins:**
- 54 Programmable Input/Output pins
  - 4 Optically Isolated Input pins
  - 1 Line Sync Reference Input pin
  - 4 Address Select Input pins
- Standardized Communications:** The SIU-218 uses real-time standardized 614.4 Kbs SDLC communications with the ATC to transfer command and response data on Serial Bus #1.
- SIU Port 4 INBUS:** The Serial Bus #2 from the ATC is directed to peripheral devices in the Input Assembly using the SIU-218 on-board INBUS buffers.
- Output Drivers:** All outputs are rated at 150mA continuous sink current. Each output provides a 500mA typical current limit. Outputs are rated to 50 volts and utilize a voltage clamp for inductive transient protection.
- Isolated Inputs:** Four optically isolated inputs provide isolation for Pedestrian Detector and Remote Interconnect inputs. These inputs are intended for direct connection to 12 Vac for Pedestrian Detector applications. They may also be connected for 'Low True' DC applications when the Opto Input Ground pin is connected to a 24Vdc supply.
- Internal Diagnostics:** A complete set of internal diagnostic self-tests are run continuously to help ensure critical components of the SIU-218 are operating correctly.
- Address Reporting:** A front panel LED indicator can be used to report the current Input/Output assembly address assignment of the SIU-218 for cabinet configuration verification.
- Front Panel Port:** A Diagnostic EIA-232 port is available on the front panel to interface to SIU-218 functions using the EDI *FrontPanel* software, and for custom applications. The connector is a 9 pin "DE9S" subminiature type connector.

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