# Traffic alert

The Click 513 is a traffic-alert device that monitors interval data from a SmartSensor HD then compares the detected speed, volume, and occupancy values to a set of predetermined threshold values. A digital output is activated when the data exceeds these thresholds.

- Sliding-window data filter to detect traffic flow conditions such as: high-volume, slow-downs, and queueing.
- Polls SmartSensor HD for latest interval data and stores into configurable buffer with up to 10 intervals
- Upper and lower thresholds can be set for: speed, volume, and occupancy
- Uses Click Supervisor for user-configuration of approach thresholds and output actuation
- Mounts to a DIN rail for quick and easy installation

- Pluggable screw terminals can be removed for prewiring and are redkeyed to minimize incorrect wiring
- Results can be monitored through computer or through LEDs on device faceplate
- Push-button cycles through operation modes
- Remote upgradable
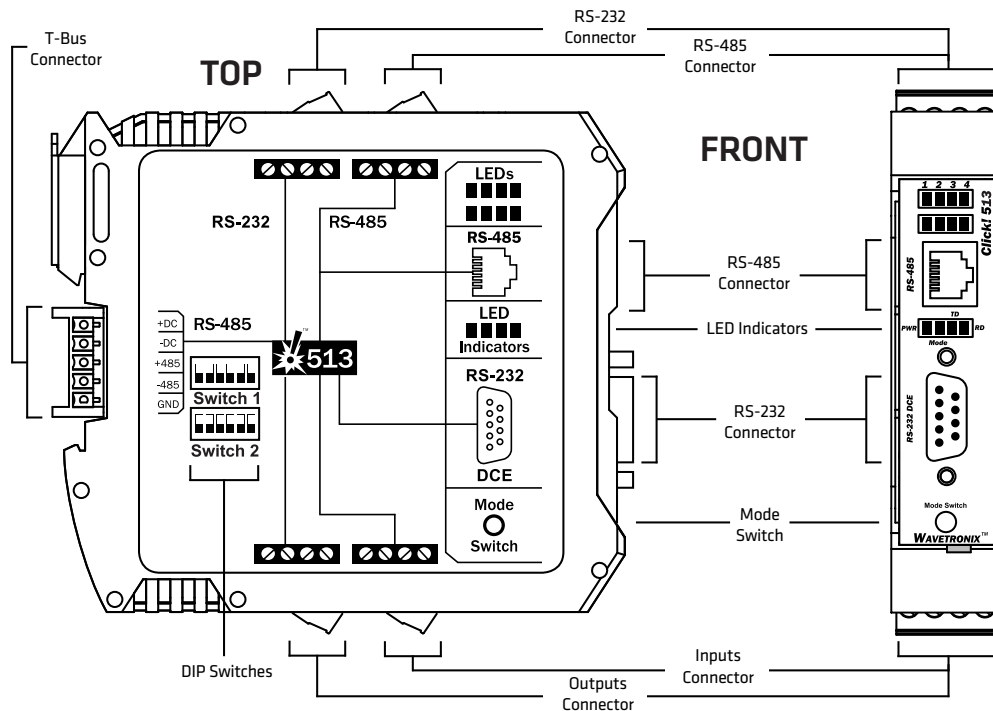
Technical specifications

Physical

- Weight: 0.29 lbs (0.1 kg)
- Physical dimensions: 4.5 in. × 4 in. × 0.9 in. (11.4 cm x 10.2 cm x 2.3 cm)
- Ambient operating temp: -29°F to 165°F (-34°C to 74°C)
- Humidity: up to 95% RH

Mounting

- DIN rail–mountable
- Hot-swappable

Power

- Power supply voltage: 9–28 VDC
- Power consumption: 0.8 W

Connections

- Power:
    - 5-position connector from the T-bus
    - Voltage input monitoring with settable thresholds of 11.7 or 22.9 VDC
- Four independent physical serial ports
    - RS-232 front: DB-9 female DCE connector with DIP switch override to select between programming and run mode
    - RS-485 back: 5-position connector for connecting from T-bus
    - RS-232 top: Pluggable screw terminal
    - RS-485 top: Pluggable screw terminal and an RJ-11 jack
- Two multi-function digital input ports
    - Low-level AC input monitoring via clamp-on split-core current transformers with 1 W 120 VAC load threshold suitable for monitoring incandescent or LED signal indication status
    - Contact closure input monitoring circuit that also serves to monitor low-level DC logic with threshold at 2.5 V DC voltage input monitoring with selectable thresholds of 9, 11.7 and 23.4 VDC
    - Maximum input event frequency of 250 Hz
- Two solid state contact closure output ports
    - 250 Hz output signaling capability

Communication

- Converts RS-232 to RS-485 and vice versa

Baud rate

- Operates at baud rate of 9600 bps

Configuration features

- Push-button on faceplate does the following:
    - Sets device to Run mode
    - Sets device to Setup mode
    - Resets to device factory defaults

Ordering information

Click 513
CLK-513

Contact us

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- Multicolored LEDs have activity indicating function:
    - Red LED illuminates when device has power
    - Green LED (TD) illuminates when data is transmitted
    - Yellow LED (RD) illuminates when data is received
- Multicolored LEDs also act as operation mode indicators
- Two banks of LEDs (yellow and red) display submenu selections
- Supported by user-friendly GUI (graphical user interface) for control of program parameters
- DIP switches for selection of run mode versus programming mode, multi-function inputs and supply voltage monitor thresholds

Testing features

- Push-button can be used to generate output signals to test system configuration

Pocket PC & PC configuration software

- Comes with Click Supervisor, configuration software with the following features:
    - Runs on Pocket PC or Windows desktop or laptop PC (Windows 2000 and newer)
    - Configures the number of monitored intervals and six interval thresholds: Over Speed, Under Speed, Over Volume, Under Volume, Over Occupancy and Under Occupancy
    - Can save/open a configuration to/from a file, allowing a common configuration to be easily programmed into many devices
    - Has customizable driver(s) that are stored in an XML file that describes the settings for a devices as well as graphical user interface for that driver in the configuration software

Upgrade utility software

- Upgradable and programmable without case removal

Testing

- Passes manufacturer's test before shipping
- Tested under IEC 60950-1

Extended support

■ Extended support options are available from Wavetronix; con-
tact a Wavetronix representative for more information

Warranty

■ One-year warranty against material and workmanship defect
(see Click Warranty datasheet for complete details)

Bid specifications

1.0 General. This item shall govern the purchase and installation of a traffic alert module (TAM) equivalent to the Wavetronix Click 513. Test results and other documentation demonstrating performance and capabilities shall be provided.

2.0 Product description. The TAM shall be a traffic alert module for use with serial devices, such as the Wavetronix SmartSensor.

3.0 Physical. The TAM shall not exceed 0.29 lbs. (0.1 kg) in weight.

The TAM shall not exceed 4.5 in. × 4 in. × 0.9 in. (11.4 cm x 10.2 cm x 2.3 cm) in its physical dimensions.

The TAM shall operate in the temperature range of -29°F to 165°F (-34°C to 74°C).

4.0 Mounting. The TAM shall mount to a DIN rail with hot-swappable power and communication buses for quick installation and replacement.

5.0 Power. The TAM shall operate using less than 0.8 W of average power at 9 to 28 VDC.

6.0 Connections. The TAM shall include the following connections for power and communication:

6.1 Power. The TAM shall include a 5-position connector, with two contact points reserved for connecting power through the bus.

The TAM shall supply voltage input monitoring with settable thresholds of 11.7 or 22.7 VDC.

6.2 Serial ports. The TAM shall include the following four independent physical serial ports:
- RS-232 front: DB-9 female DCE connector with DIP switch override to select between programming and run mode
- RS-485 back: 5-position connector for connecting from T-bus
- RS-232 top: Pluggable screw terminal
- RS-485 top: Pluggable screw terminal and an RJ-11 jack

6.3 Digital input ports. The TAM shall include two multi-function digital input ports with the following features:
- Low-level AC input monitoring via clamp-on split-core current transformers with 1 W 120 VAC load threshold suitable for monitoring incandescent or LED signal indication status
- Contact closure input monitoring circuit that also serves to monitor low-level DC logic with a threshold of 2.5 V
- DC voltage input monitoring with selectable thresholds of 9, 11.7 and 23.4 VDC
- Maximum input event frequency of 250 Hz

6.4 Contact closure output ports. The TAM shall feature two solid state contact closure output ports with 250 Hz of output signaling capability.

7.0 Communication. The TAM shall have the following communication capabilities:

7.1 Serial protocol conversion. The TAM shall allow communications with any serial device that has a serial connection by converting 3-wire half-duplex RS-485 communication to half-duplex RS-232 communication, and vice versa.

8.0 Baud rate. The TAM shall operate at a baud rate of 9600 bps.

9.0 Configuration features. The TAM shall have a push-button on the face-plate that:
- Sets device to Run mode
- Sets device to Setup mode
- Resets to device factory defaults

The front of the TAM shall include a red power LED, as well as green and yellow TX and RX LEDs that shall illuminate when corresponding data is successfully transmitted or received.

These LEDs, as well as the blue LED next to them, shall also act as operation mode indicators for operation modes selected with the push-button.

The TAM shall include two banks of user-programmable LEDs, one yellow and one red, to display submenu selections.

The TAM shall be supported by a user-friendly graphical user interface that will control the program parameters.

The TAM shall have DIP switches that will be used to select run mode versus programming mode, multi-function inputs and supply voltage monitor thresholds.

10.0 Testing features. The TAM shall feature a self-test for system configuration. This test shall be accessed by using the push-button on the faceplate.

11.0 Pocket PC & PC configuration software. The TAM shall be provided with configuration software that:
- Runs on Pocket PC or Windows desktop or laptop PC (Windows 2000 and newer)
- Configures the number of monitored intervals and six interval thresholds: Over Speed, Under Speed, Over Volume, Under Volume, Over Occupancy and Under Occupancy
- Can save/open a configuration to/from a file, allowing a common configuration to be easily programmed into many devices
- Has customizable driver(s) that are stored in an XML file that describes the settings for a devices as well as graphical user interface for that driver in the configuration software

12.0 Upgrade utility software. The TAM shall be upgraded using software that:
- Runs on a Windows desktop or laptop PC (Windows 2000 and newer)
- Can upgrade the TAM firmware to add new features to the TAM

13.0 Testing. Before shipping, each TAM shall have passed a manufacturer's test.

Each TAM shall comply with all CE requirements under IEC 60950-1.

14.0 Extended support. Extended support options shall be available. Contact the manufacturer's representative for more information.

15.0 Warranty. The TAM shall be warranted to be free from material and workmanship defects for a period of one year from date of shipment.