Click 100 Contact Closure

INSTALLATION QUICK START GUIDE

The Click 100 is a hot-swappable, 16-output contact closure module for use with Wavetronix SmartSensors. For more information about this product, visit wavetronix.com.

1   Mount the device

The Click 100 mounts over a T-bus for power and communication.

1   If the Click 100 was shipped with the T-bus connector attached, remove the connector from the module.

2   Snap the connector onto the DIN rail by positioning it over the rail with the male connector pointing to the right. Hook one arm over the edge of the DIN rail and press down on the other arm until it snaps into place.

3   Connect the T-bus connector to the rest of the T-bus by sliding them together until you hear them snap into place.

4   Mount the Click 100 onto the DIN rail: position it properly over the T-bus connector, hook the lip over the lower edge of the DIN rail, and use a rocking motion to snap the module into place.
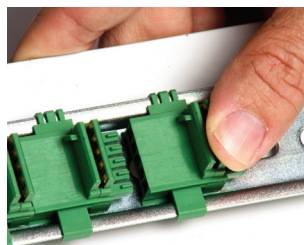
2   Wire power and communication

If you are a using a Click 200 surge protector with the Click 100, power and communication are provided to the Click 100 through the T-bus (see the Click 200 Quick Start Guide). If you don't have a Click 200 surge protector, use the following steps to wire power and communication into the Click 100.

1   Plug a T-bus 5-screw terminal block into the first T-bus connector.

2   Wire DC power (10–30 V) from the power supply into the first screw terminal on the 5-screw terminal block; wire -DC into the second screw terminal.

3   Connect RS-485 communication (+485, -485 and GND) to the remaining three screw terminals on the 5-screw terminal block.

Red (+DC)
Black (-DC)
White (+485)
Blue (-485)
Drain (GND)
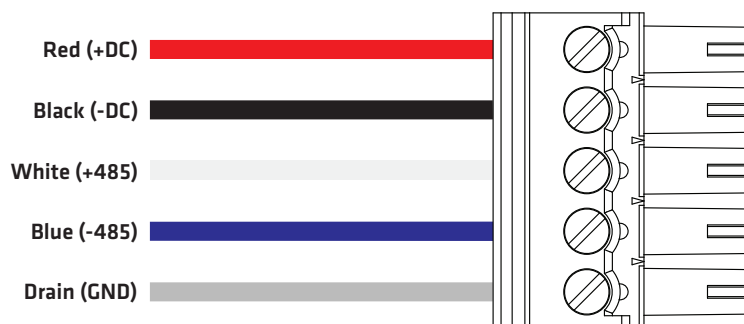
3   Use on-device configuration features

Next, use the device's configuration features. The Click 100 has four LEDs that monitor device activity and help you select operating modes, as well as a push-button, labeled Mode Switch, also used for operating modes.

1   Check LEDs to make sure the device has power.

2   Autobaud device to ensure it can talk to the sensor or other attached serial device (see table below).

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Hold the push-button to cycle through modes, then release when the desired mode is reached.

Selection	Operating mode
🔴	**Presence –** Outputs contact closures for single-loop or dual-loop emulation. Dual-loop emulation will signal the radar's speed and duration measurements; single-loop emulation will signal the radar's duration (no speed information).
🟠	**Pulse –** Outputs contact closures for single-loop or dual-loop emulation. Dual-loop emulation will signal the radar's speed measurement using the time elapsed between the onset of the primary and secondary outputs (no duration measurement); single-loop emulation will signal that the radar detected a vehicle (no duration or speed information).
🟢	**Actuation –** Outputs contact closures for single-loop emulation. This is the only mode used by SmartSensor Advance.
🟡	**One-Loop Speed –** Outputs contact closures for single-loop emulation. The duration is based upon the speed of the detected vehicle.
☀	**Autobaud –** Hold the push-button until the green LED flashes. While autobauding, the green and yellow LEDs will flash intermittently, as well as the 16 digital output LEDs. If the autobauding is unsuccessful, the LEDs will remain in that state indefinitely. If it's successful, the yellow LED will flash, then the device will return to its normal state and default to the Presence mode.

4 Wire contact closure outputs

Follow the steps below to wire the contact closure outputs to a controller, data logger or BIU (bus interface unit):

Primary Detector   **Secondary Detector**

1 Wire the screw terminals on the top of the device labeled 1–8. These terminals represent the primary outputs with primary one (P1) representing the lane closest to the sensor. For dual-loop emulation, the contact closure outputs must be wired with the primary always leading the secondary.

2 Wire the bottom screw terminals also labeled 1–8. These terminals represent the secondary outputs, with secondary one (S1) representing the lane closest to the sensor.

3 Wire one of the remaining GND screw terminals to a logic ground. One GND terminal must be connected for the primary and secondary outputs to function.