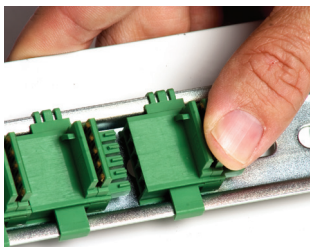
Click 200 Lightning Surge

INSTALLATION QUICK START GUIDE

The Click 200 protects SmartSensors and traffic cabinets from power surges over DC power and serial communication lines. For more information about this product, visit wavetronix.com.

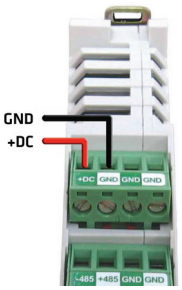
1 Mount the device

The Click 200 mounts over a T-bus for power and communication:



1. If the Click 200 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 200 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



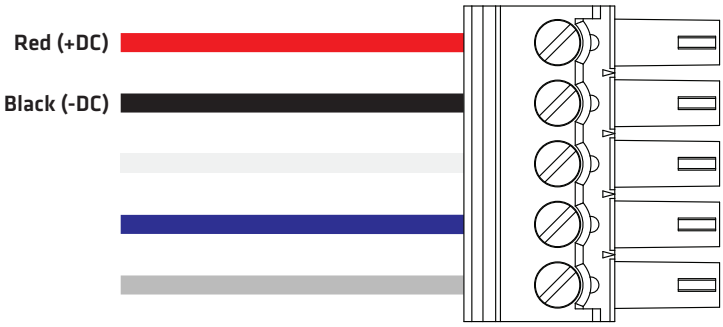
The Click 200 can take power and communications in through its screw terminals and send them through any T-bus it is mounted on. To wire power through the Click 200: wire +DC from the power supply into the screw terminal marked +DC on the PROTECTED side of the Click 200. Wire -DC from the power supply into the screw terminal marked -DC.

Alternatively, power can be wired from the power supply into a 5-screw terminal block, which can then be plugged into the left side of the T-bus. To wire power through the 5-screw terminal block: wire +DC from the power supply into the screw terminal marked +DC on the 5-screw terminal block. Wire -DC from the power supply into the screw terminal marked -DC.

The front of the Click 200 has two communication ports (communication through the device's screw terminals will be covered in part 4 of this guide).

- **RJ-45 jack –** This is a convenient way to connect RS-485 communications to a rack card.
- **DB-9 connector –** Connect between here and your computer to configure your sensor.

Note. *Unlike on other Click devices, the RS-232 lines are not connected to the RS-485 lines on the Click 200. Be sure to test both lines as part of your installation process.*



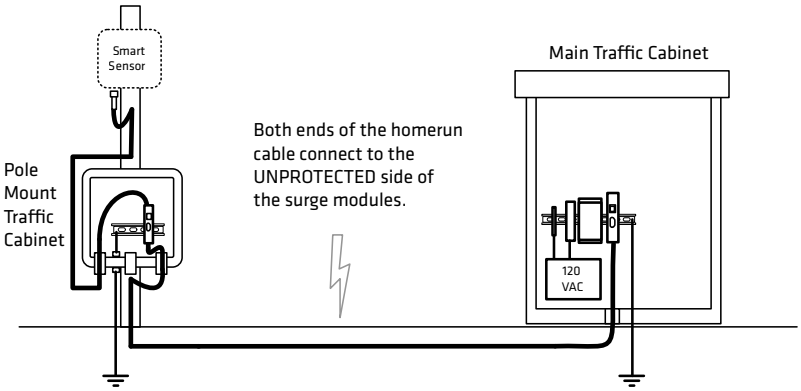
3 Wire earth ground

All Click 200 devices should be mounted on a DIN rail that is connected to earth ground, either through an earth-ground chassis or a 16 AWG or larger grounding wire attached to a 7-ft. (2.1-m) grounding rod. Follow the steps below to correctly wire to earth ground:

1. Connect the grounding wire from either the DIN rail or a GND screw terminal on the UNPROTECTED side of the Click 200 to the lug bolt on the inside of the pole-mount box.
2. Connect another grounding wire from the exterior lug bolt to earth ground.

4 Connect cables

If your installation has an underground cable run, use two Click 200 devices: one in the pole-mount cabinet, the other in the main traffic cabinet, as shown here. These devices protect the sensor and the main traffic cabinet from surges on the underground cable run caused by lightning striking the ground nearby.



The Click 200 uses the 8-conductor cable. The wiring is shown below.

1. Run a cable from the sensor into the pole-mount cabinet. Wire it into the PROTECTED side of the Click 200.
2. Wire a second cable into the UNPROTECTED side of the Click 200.
   Run that cable from the pole-mount cabinet to the main traffic cabinet.
3. Wire that cable into the UNPROTECTED side of the second Click 200.

Note. *The 9-conductor cable, used with a retrofit SmartSensor HD, differs from the images below in these ways: there's a gray ground wire; there's three drain wires, which can be connected to any GND terminal; the +485 wire is all white (no blue stripe).*