

WAVETRONIX APPLICATIONS

System Wide Mid-Block Detection

This system is designed to share detection information from one SmartSensor™ between two intersections for intelligent signal timing and control. By doing so, each intersection controller can receive the information on approaching traffic from a single sensor station.

These sensor stations can mount on existing infrastructure such as luminaries and may be solar powered or AC powered. An example of a solar installation is shown to the right. At this installation the SmartSensor SS105 is measuring seven lanes of traffic with the first lane only having a six foot offset from the sensor.

The SmartSensor sends per vehicle detection data through two client radios. Each client radio sends the detection data to a master radio located in the traffic controller cabinet. A single master radio can support up to 10 sensor stations and up to four contact closure output modules called the “Click!™ 101.

The Click! 101 translates the detection data from the SmartSensors into 16 contact closure outputs. Individual contact closure outputs are easily verified by monitoring the LEDs on the front of the module. Each of the 16 contact closure outputs can be assigned to any detection zone on any of the sensors connected to the wireless network; With up to four contact closure output modules, one master radio can support a total of 64 outputs if required. For a typical installation at a four-approach intersection, there are four sensors each providing four lanes of detection and only one master radio and one contact closure output module are required (see Figure 2).

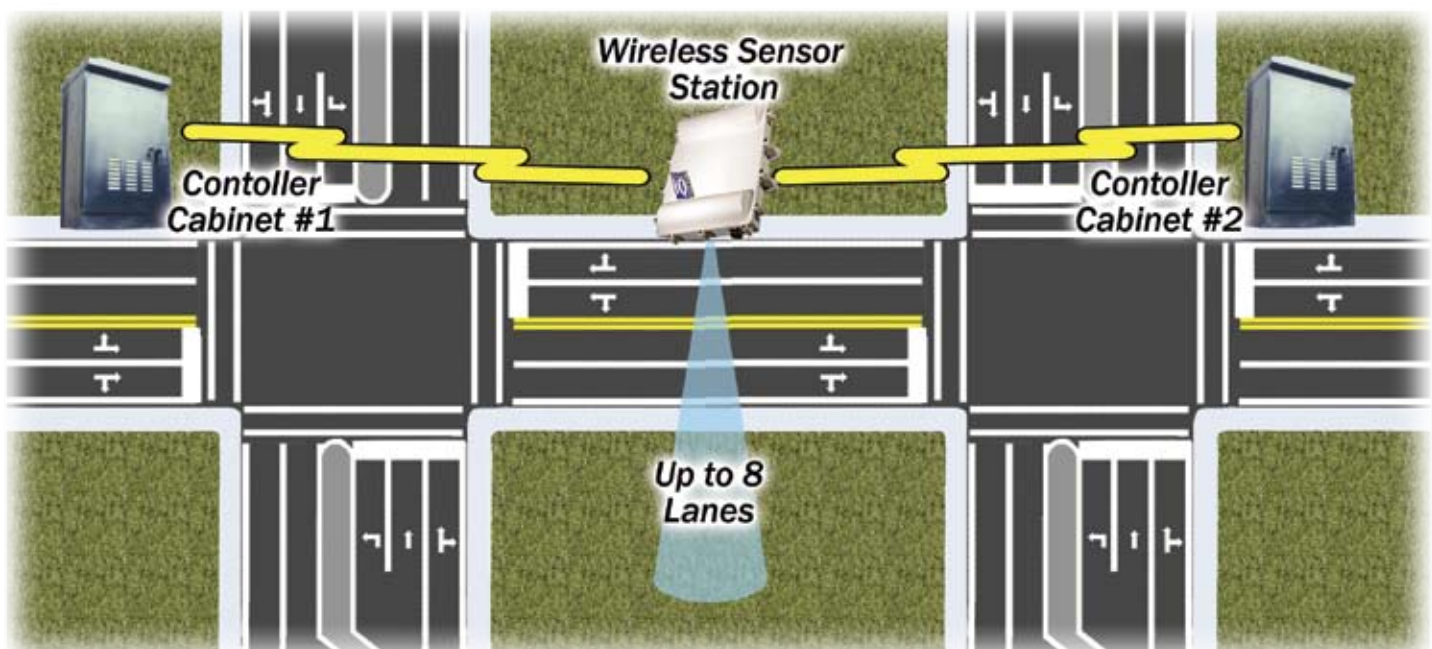


Figure 1. Intersection Layout

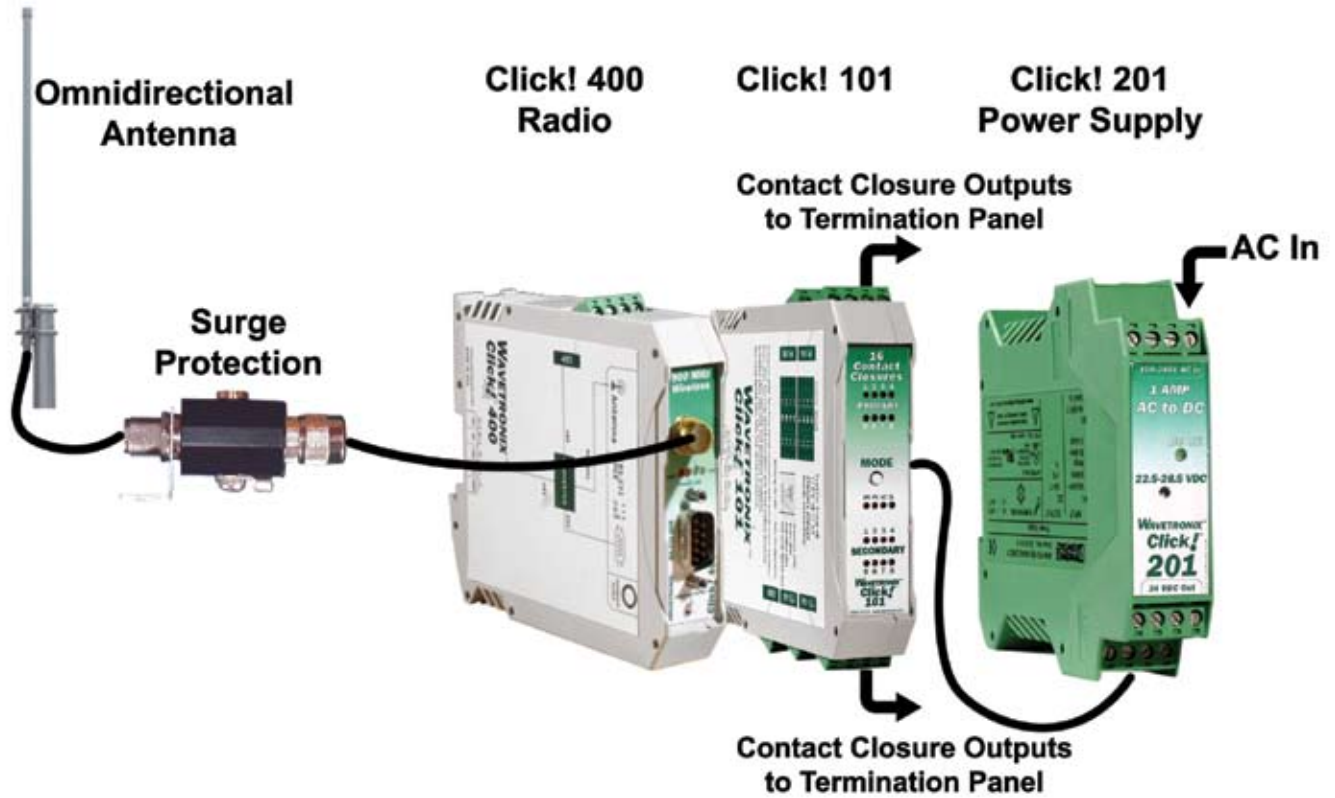


Figure 2. Base Station in Controller Cabinet

This architecture provides an easily expandable system, because more Click! 101 modules can be added when more contact closure outputs are required without affecting the rest of the system.

An additional benefit of this system is that each sensor can be accessed wirelessly from the traffic cabinet using the SmartSensor Manager configuration software by attaching a laptop to the RS-232 port on the front of Click!™ 400 radio. This helps the installer modify the configuration on all the sensors from one location, which reduces overall system installation and configuration time.

Note: The maximum length of the antenna cable is 50 feet. For situations where longer cable runs are required the master radio can be mounted separately in a pole mount box. A five-pair (15 conductor) serial/power cable is then run back to the Click! 101's and the power supply inside the controller cabinet.