

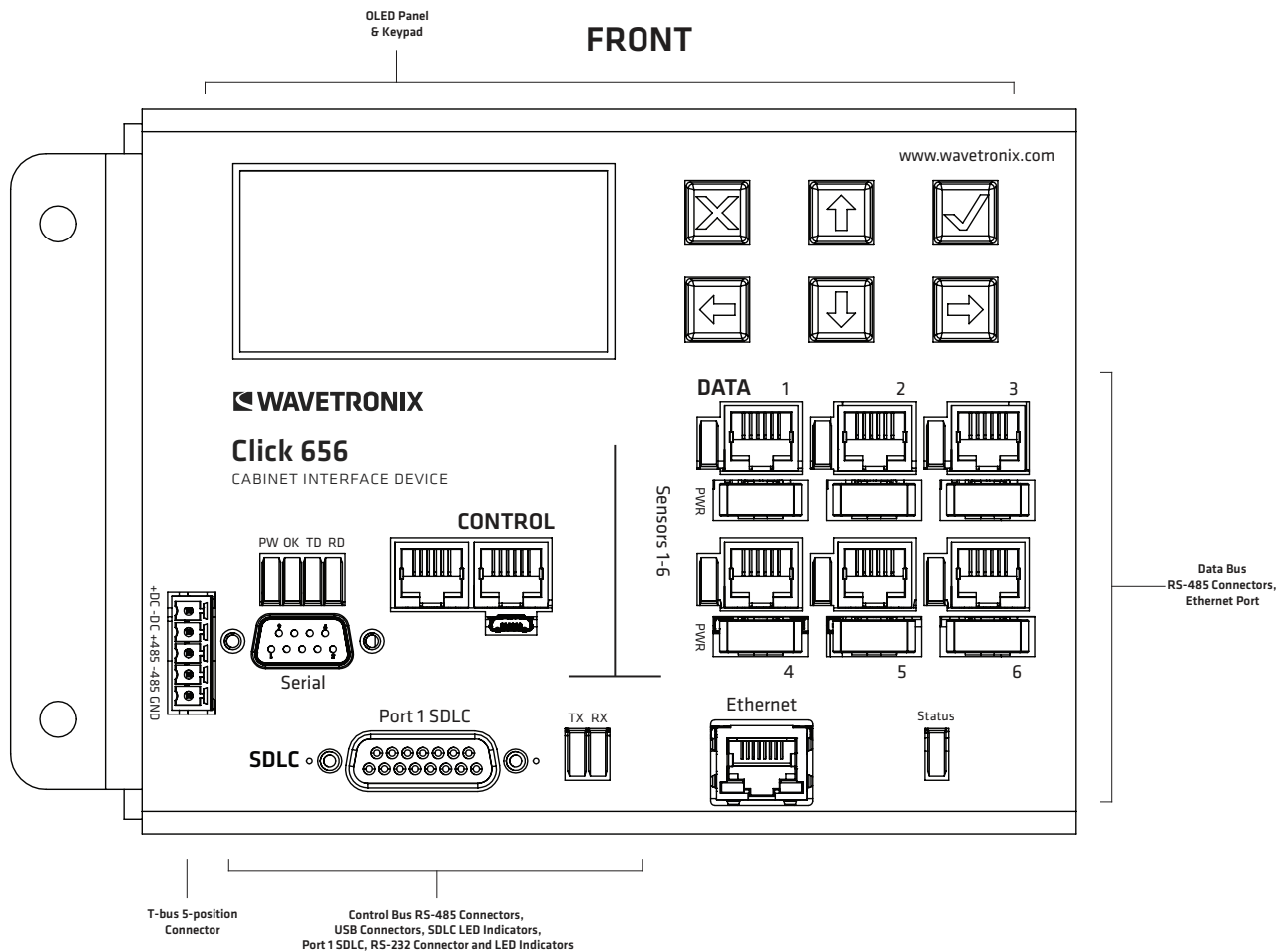


Cabinet Interface Device

The Click 656 provides streamlined communication for SmartSensor Matrix and Advance to traffic controllers in one compact case. This module communicates directly to the controller through SDLC, and supports contact closure devices as well. It also provides power, surge protection and Ethernet connectivity for all sensors.

Features

- Provides power, connectivity and surge protection for up to six SmartSensors
- Sends sensor detection data directly to controller through the SDLC port
- Provides up to 64 detector channels via SDLC communications
- Can also be used to send sensor detection data to contact closure cards
- Provides an Ethernet port for network connectivity
- Has a power switch for each sensor, allowing you to easily turn them off one by one
- Has multiple configuration connections for communicating from your computer to the connected sensors:
 - USB
 - RJ-11 jacks for RS-485
 - DB-9 connector for RS-232
 - T-bus port
- Can be easily installed in standard 19" cabinet or used on a shelf.
- Can be used in place of preassembled backplates and other cabinet devices



Technical Specifications

Included Components

- Click 656
- AC power cord
- Extra fuse
- Terminal blocks for attaching to cable
- Ethernet cable

Physical

- Weight: 6 lbs. (2.72 kg)
- Physical dimensions: 6.6 in. × 5.125 in. × 7.3 in. (16.8 cm × 13 cm × 18.5 cm)
- Ambient operating temp: -29°F to 165°F (-34°C to 74°C)
- Humidity: up to 95% RH

Mounting

- Shelf-mount
- 19" rack-mount

Power

- Power supply voltage: 100 to 240 VAC
- AC frequency: 50–60 Hz
- Max power: 112 W @ 80°C
- 24 VDC output on sensor connectors

Connections and Communication

- Power
 - AC input: IEC AC input
- Ethernet
 - One RJ-45 10/100 Ethernet jack on the front of the device
- SDLC
 - One SDLC port on the front of the device
- Six terminal block connectors on back of device for connecting to sensors
 - Cable terminal points for sensor power and RS-485 communications
 - Matching terminal blocks are included with Click 656
 - Matches terminal blocks used for cable termination with Wavetronix intersection preassembled backplates
- Six RJ-11 jacks on faceplate of device for connecting to contact closure devices
 - Communicate via RS-485
 - Jacks make up physical interface of data bus on device and are for sending detection data from sensors on to contact closure devices such as rack cards (which are not included)
 - Communicate with rack cards via jumper cables
- Six communication ports on faceplate make up physical interface of control bus and are for connecting to the sensors to

Ordering Information

Click 656
102-0451

ACCESSORIES

102-0462 – Click 656 3U mounting shelf

310-0411 – SDLC cable

310-0413 – SDLC Y cable

102-0449 – 4-port SDLC hub

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configure them

- DB-9 port for communicating via RS-232
- Two RJ-11 jacks for communicating via RS-485
- USB micro-B connector
- T-bus port for connecting to a T-bus; allows Click 656 to send DC power and RS-485 communications to other devices connected to a T-bus

Other Features

- Four multicolored LEDs with activity indicating functions:
 - Red LED (PW) illuminates when device has power
 - Blue LED (OK) extinguishes if device has been disabled by surges
 - Green LED (TD) illuminates when data is transmitted on the control bus
 - Yellow LED (RD) illuminates when data is received on the control bus
- Each data bus RJ-11 jack on the faceplate corresponds to one sensor and has the following features:
 - Switch for turning the power to that sensor on and off
 - LED for indicating when that sensor has power
- Switch for turning power on and off to entire device
- OLED panel and keypad for on-site device configuration
- Web interface for device discovery and output configuration using web browser



- Device supports connecting up to six SmartSensors to the controller, providing up to 64 detector channels via SDLC communications

NEMA TS2-2003 Testing

- Complies with the applicable standards stated in the NEMA TS2-2003 Standard
- Test results available for each of the following tests:
 - Shock pulses of 10 g, 11 ms half sine wave
 - Vibration of 0.5 Grms up to 30 Hz
 - 300 V positive/negative pulses applied at one pulse per second at minimum and maximum AC supply voltage
 - Stored at -49°F (-45°C) for 24 hours
 - Stored at 185°F (85°C) for 24 hours
 - Operation at -29.2°F (-34°C) and 89 VAC
 - Operation at -29.2°F (-34°C) and 135 VAC
 - Operation at 165.2°F (74°C) and 135 VAC
 - Operation at 165.2°F (74°C) and 89 VAC

FCC Testing

- FCC-compliant

Testing

- Passes manufacturer's test before shipping

Surge immunity

- Surge immunity sensor ports: IEC/EN 61000-4-5 level 4
- Surge immunity AC input: IEC/EN 61000-4-5 level 3

Extended Support

- Extended support options are available from Wavetronix; contact a Wavetronix representative for more information

Warranty

- Two-year warranty against material and workmanship defect

Click 656 Bid Specification

1.0 General. This item shall govern the purchase and installation of a cabinet interface device (CID) equivalent to the Wavetronix Click 656. Test results and other documentation demonstrating performance and capabilities shall be provided.

2.0 Product Description. The CID shall be a module that provides power and surge protection and that communicates with contact closure devices, ethernet and controllers through SDLC. The CID shall be shipped with the AC power cord, Ethernet cable and terminal blocks necessary for wiring it, as well as with an extra fuse.

3.0 Physical. The CID shall not exceed 6 lbs. (2.72 kg) in weight.

The CID shall not exceed 6.6 in. × 5.125 in. × 7.3 in. (16.8 cm x 13 cm x 18.5 cm) in its physical dimensions.

The CID shall operate in the temperature range of -29°F to 165°F (-34°C to 74°C) and in humidity up to 95% RH.

4.0 Mounting. The CID shall be either rack-mounted in a standard 19" rack or shelf-mounted.

5.0 Power. The power supply voltage of the CID shall be 100 to 240 VAC. Its AC frequency shall be 50–60 Hz and the maximum power shall be 112 W at 80°C.

The CID's sensor connectors shall output 24 VDC.

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

6.1 Power. The CID shall have an IEC AC input.

6.2 Terminal Block Connectors. The CID shall have six terminal block connectors for connecting to sensors. These connectors shall be for terminating cables that carry power and RS-485 communications to and from the sensors.

6.3 Data RJ-11 Connectors. The CID shall have six RJ-11 jacks for sending detection data from sensors to contact closure devices such as rack cards via jumper cables. This data shall be sent via RS-485. These jacks shall make up the physical interface of a dedicated data bus.

6.4 Control Connectors. The CID shall have six other communication ports. These ports shall make up the physical interface of a dedicated control bus and shall allow users to connect to the sensors and configure them.

- DB-9 port for communicating via RS-232
- Two RJ-11 jacks for communicating via RS-485
- USB micro-B connector
- T-bus port for connecting to a T-bus

6.5 Ethernet Connector. The CID shall have an RJ-45 10/100 Ethernet port to allow connection to a local network.

6.6 SDLC Port. The CID shall have an SDLC port for direct connection to a traffic controller.

7.0 Other features. The CID shall have the following other features:

7.1 LEDs. The CID shall have four multicolored LEDs with activity-indicating functions:

- An LED that indicates when the device has power
- An LED that indicates if the device has been disabled by surges
- An LED that indicates when data is being transmitted on the control bus
- An LED that indicates when data is being received on the control bus.

7.2 Data RJ-11 Jack Features. The four jacks that make up the physical interface of the data bus (and that each correspond to one sensor) shall have a switch for turning their corresponding sensor off and an LED that indicates when that sensor has power.



7.3 Power Switch. The CID shall have a switch for turning power off for the entire device.

7.4 OLED Panel with Keypad. The CID shall have a OLED panel on the device with a keypad for device configuration.

7.5 Web Interface. The CID shall have a web interface for device configuration, accessible through a web browser from a network-connected device.

7.6 Configuration. The CID configuration shall support connecting up to six detectors to the controller, providing up to 64 detector channels via SDLC communications.

8.0 NEMA TS2-2003 Testing. The CID shall comply with the applicable standards stated in the NEMA TS2-2003 Standard. Test results shall be made available for each of the following tests:

- Shock pulses of 10g, 11 ms half sine wave
- Vibration of 0.5 Grms up to 30 Hz
- 300 V positive/negative pulses applied at one pulse per second at minimum and maximum AC supply voltage
- Cold temperature storage at -49°F (-45°C) for 24 hours
- High temperature storage at 185°F (85°C) for 24 hours
- Low temp, low DC supply voltage at -29.2°F (-34°C) and 89 VAC
- Low temp, high DC supply voltage at -29.2°F (-34°C) and 135 VAC
- High temp, high DC supply voltage at 165.2°F (74°C) and 135 VAC
- High temp, low DC supply voltage at 165.2°F (74°C) and 89 VAC

9.0 FCC Testing. The CID shall be FCC-compliant.

10.0 Testing. Before shipping, each CID shall have passed a manufacturer's test.

11.0 Surge Immunity. The sensor ports of the CID shall conform to IEC/EN 61000-4-5 level 4 standards; the AC input of the CID shall conform to IEC/EN 61000-4-5 level 3 standards.

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

13.0 Warranty. The CID shall be warranted to be free from material and workmanship defects for a period of two years from date of shipment.