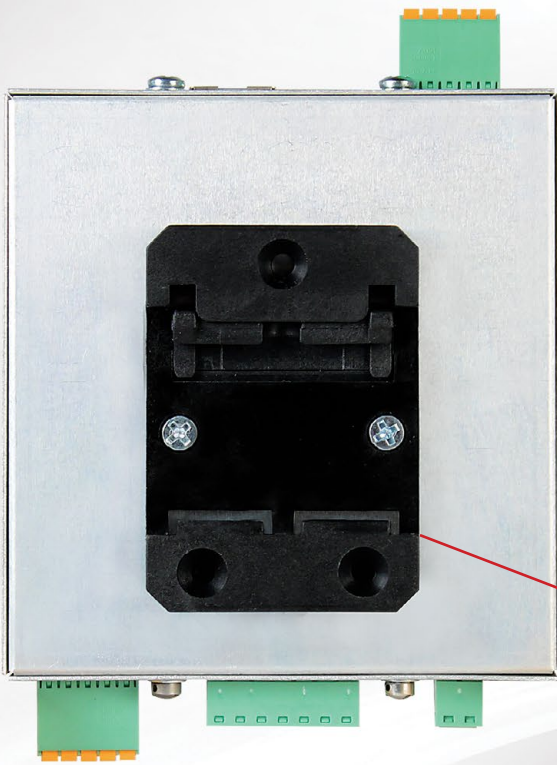




# 201 Weight Transmitter



PLC Connectivity • DIN Rail Mounting • ColorZONE Checkweighing



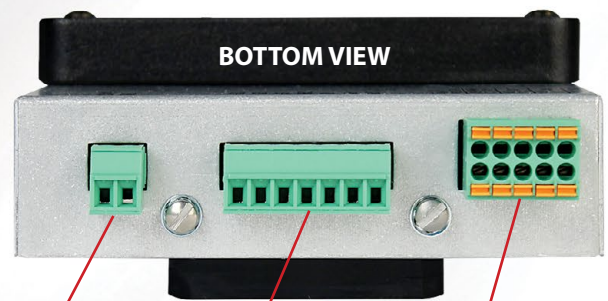
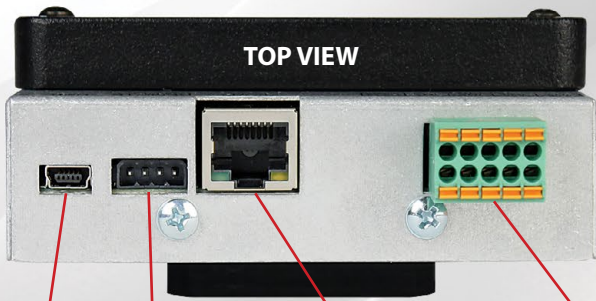
**Cardinal Scale's model 201 weight transmitter** is a fast, accurate instrument for process control-based static and dynamic weighing applications. The 201 is capable of powering up to eight 350-ohm load cells and comes with a 35-mm DIN rail mounting bracket. The 201 transmitter features a 0.5-inch-high, six-digit, transreflective LCD display with up to seven different colors and is viewable in all lighting levels from direct light to total darkness. A variety of mounting options and ColorZONE control options make it ideal for quick visual verification of weight status.

The model 201 offers sample rates of up to 200 samples per second and standard communication protocols include serial interface RS232/RS485, mini-USB-B, Analog (0-10V or 4-20mA), Ethernet TCP/IP, EIP, and Modbus TCP, making it easy to connect to a PC, PLC, and other smart devices. Four programmable digital inputs and outputs are included to make it even more flexible. Connectivity set-up is simple using the printed legend on the front of the 201 enclosure. Setup and calibration of the model 201 is fast and easy using both the on-screen indicator menu prompts or Web browser interface via IP address.

### 35-mm DIN rail mounting bracket

No options necessary, all features come standard out of the box

## EXTENSIVE CONNECTIVITY PORTS AVAILABLE



**Mini USB-B**  
**Remote Display**  
**Ethernet** (TCP/IP, EIP, Modbus TCP)  
**Remote I/O** (4 digital inputs and outputs)

**Power** (12-24 VDC @ 6W)  
**Load Cell** (Up to eight 350-ohm cells)  
**Bi-directional Serial** (RS232 or RS485)

## VERSATILE MOUNTING VARIATIONS



**DIN Rail Mount**  
 35-mm DIN rail snap-on mounting for quick and easy attachment



**Flush Mount**  
 Use the two front-panel screws to flush mount the transmitter



**Remote Display**  
 Flush mount the display up to 30 ft. from the transmitter with an optional RS232 serial cable

The 201's 4-in-W x 4.2-in-H x 1.9-in-D compact size uses very little panel space, and the enclosure can be DIN rail mounted with the display either internal or remotely mounted on the face of the cabinet making it easy to implement into new and existing systems. The 201 is both NTEP and Measurement Canada certified for legal-for-trade applications and is UL listed.

## Compact 4-in-W x 2-in-H display size with 0.5-in H LCD digits



Tank Scale Monitoring



Ethernet

Remote Weight Monitoring



For use with PLCs, tank installations, or checkweighing systems

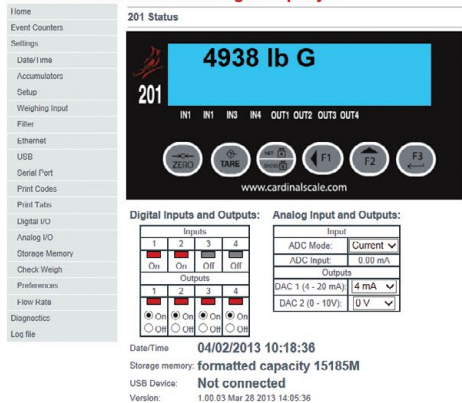
Web-Based Remote Weight Monitoring and Configuration

### STANDARD FEATURES

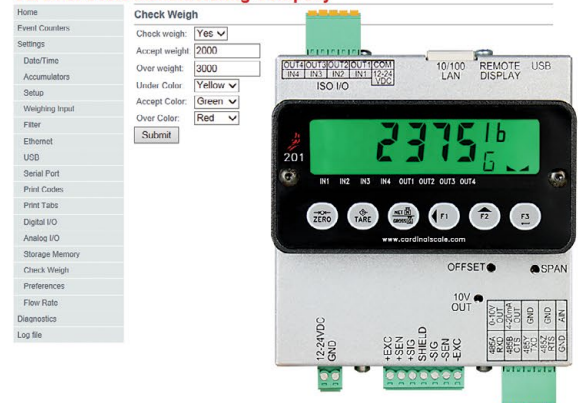
- Push-button tare function
- Gross, Tare, Net conversion
- High-resolution mode
- Gross and Net Accumulators
- SMA level 2 compliant serial communications (more information at [www.scalemanufacturers.org](http://www.scalemanufacturers.org))
- Remote display (requires optional cable and connectors)
- Field re-programmable via PC connection
- Over and Under checkweigher function with outputs (screen changes color based on weight condition)
- 7 selectable display screen colors: amber, green, red, blue, white, purple, and pink
- Selectable Function key definition
- English and Spanish language set-up menus

### WEB INTERFACE THROUGH IP ADDRESS

#### Cardinal Scale Manufacturing Company



#### Cardinal Scale Manufacturing Company



Connect the Ethernet port, enter the IP address in a Web browser, and the 201 transmitter will display live weight.

Checkweighing set-up is easy with the Web interface - set colors and weight limits remotely.

## SPECIFICATIONS

<b>Power Requirements</b>	12-24 VDC @ 6w
<b>Listed Accessory</b>	The weight transmitter is intended to be used with Listed Information Technology Equipment
<b>Enclosure Rating</b>	IP-20 DIN Rail 35 mm, mounted in customer's enclosure with optional remote display mounting
<b>Enclosure Size</b>	4 inch W x 4.2 inch H x 1.9 inch D without connectors (101.6 mm W x 106.7 mm H x 48.3 mm D)
<b>Operating Temperature</b>	14 to 104 Fahrenheit (-10 to 40 Celsius)
<b>Display Capacity</b>	Six-digit, 7-segment, 0.5-inch/12.7-mm high with separate annunciators; OVER, UNDER, and ACCEPT backlight indicators, annunciators: IN1, IN2, IN3, IN4, OUT1, OUT2, OUT3, OUT4
<b>Display Technology</b>	Transflective LCD with RGB LED backlight
<b>Load Cell Excitation</b>	11.72VDC
<b>Signal Input Range</b>	.5mV min to 35mV max.
<b>Load Cell Connection</b>	4 or 6 wire (remote excitation sensing)
<b>Minimum Cell Resistance</b>	43.75 OHMS (8, 350-ohm load cells)
<b>Division Value</b>	Commercial: 1, 2, 5, 10, 20, 50 x 10, 1, .1, .01, .001 Non-Commercial: 0 - 99
<b>Sensitivity</b>	.5uV/scale division
<b>Resolution</b>	10,000 Divisions
<b>Sample Rate</b>	1 - 200 samples per second, selectable
<b>Zero Range</b>	+/- 2% to 100% Full Scale, selectable
<b>Units of Measure</b>	Pounds, Ounces, Kilograms, Grams
<b>Keys</b>	Six, Membrane Type: ZERO, TARE, NET/GROSS, F1, F2, F3
<b>Approvals</b>	Class III NTEP, Class III Measurement Canada, UL

## 201 PLC CONNECTIVITY

<b>RS232 Serial</b>	The 201 can be configured for continuous or on-demand weight requests. Commands may be sent for all weight functions such as ZERO, TARE, etc.
<b>RS485 Serial</b>	The 201 can be configured for continuous or on-demand weight requests. Commands may be sent for all weight functions such as ZERO, TARE, etc.
<b>Digital Outputs</b>	The 201 has four digital outputs that can be configured for checkweighing UNDER, ACCEPT, and OVER status.
<b>Digital Inputs</b>	The 201 has four digital inputs that can be configured to perform functions such as ZERO, TARE, GROSS/NET, UNITS, or PRINT. A PLC could be connected to these inputs to trigger these functions.
<b>Analog Output</b>	The 201 has capabilities for 0-10VDC and 4-20mA that can be configured to track the gross or net weight values.
<b>Modbus TCP</b>	The 201 supports Modbus/TCP to allow a PLC to receive weight and status information. The PLC may send commands such as ZERO and TARE to the 201 using Modbus/TCP.
<b>Ethernet Raw Socket</b>	The 201 can be configured as a TCP/IP server to accept socket connections. The TCP/IP server port may be selected during set up.
<b>USB Device</b>	The 201 has a USB-B mini device connection, so it can be connected to a PC and, with the appropriate driver, will appear as a virtual COM.
<b>Web Page Configuration and Diagnostics</b>	The 201 includes a Web server that displays the current weight, digital and analog I/O states. The Web server allows remote configuration of various settings. The Web page also includes diagnostics of network connections that is useful for installation and troubleshooting of Modbus/TCP or Ethernet/IP.

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