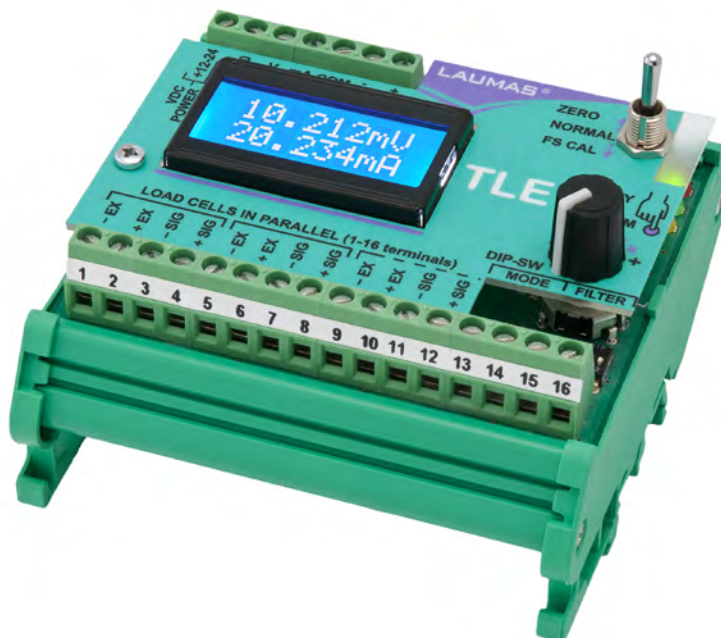




MODBUS RTU



### DESCRIPTION

- Weight transmitter suitable for back panel mounting on Omega/DIN rail or junction box (on request).
- Dimensions: 90x95x60 mm.
- Backlit alphanumeric LCD display, two-line by 8-digit (5 mm height), visible area: 38x16 mm.
- 3-way selector switch, DIP-switch and control knob.

### INPUTS/OUTPUTS AND COMMUNICATION

- Current or voltage 16-bit high-speed analog output (response time: 3 ms).
- RS485 serial port for communication via protocols ModBus RTU, ASCII Laumas or continuous one way transmission.
- 4 load cell dedicated inputs.

### MAIN FUNCTIONS

- Connections to:
  - PLC via analog output;
  - PC/PLC via RS485 (up to 99 instruments with line repeaters, up to 32 without line repeaters);
  - up to 8 load cells in parallel by junction box.
- Zero and full scale adjustment without multimeter.
- Simultaneous display of the response signal of the load cells expressed in mV and the value of the analog output.
- Digital filter to reduce the effects of weight oscillation.
- Theoretical calibration (via keyboard) and real calibration (with sample weights).
- Tare weight zero setting.

### CERTIFICATIONS

UL Recognized component - Complies with United States and Canada regulations

Complies with the Eurasian Customs Union regulations

Equivalent of the CE marking for the United Kingdom

## TECHNICAL FEATURES

|                                             |                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply and consumption                | 12÷24 VDC ±10%; 5 W                                                                                                                                      |
| Number of load cells • Load cells supply    | up to 8 (350 Ω) - 4/6 wires • 5 VDC/120 mA                                                                                                               |
| Linearity • Analog output linearity         | <0.01% full scale • <0.01% full scale                                                                                                                    |
| Thermal drift • Analog output thermal drift | <0.0005% full scale/°C • <0.003% full scale/°C                                                                                                           |
| A/D Converter                               | 24 bit (16000000 points) - 4.8kHz                                                                                                                        |
| Divisions (RS485)                           | ±200000 • 0.01 μV/d (with measurement range ±10 mV and sensitivity 2 mV/V)<br>±300000 • 0.01 μV/d (with measurement range ±15 mV and sensitivity 3 mV/V) |
| Measurement range                           | ±39 mV                                                                                                                                                   |
| Usable load cells sensitivity               | ±7 mV/V                                                                                                                                                  |
| Conversions per second                      | 300                                                                                                                                                      |
| Display range                               | ±999999                                                                                                                                                  |
| Decimals • Display increments               | 0÷4 • x1 x2 x5 x10 x20 x50 x100                                                                                                                          |
| Digital filter • Readings per second        | 8 levels • 10÷300                                                                                                                                        |
| Serial ports                                | RS485                                                                                                                                                    |
| Baud rate                                   | 2400, 4800, 9600, 19200, 38400, 115200 (bit/s)                                                                                                           |
| Analog output                               | 16 bit = 65535 divisions. 0÷20 mA; 4÷20 mA (up to 300 Ω)<br>0÷10 V; 0÷5 V; ±10 V; ±5 V (min 10 kΩ)                                                       |
| Humidity (condensate free)                  | 85%                                                                                                                                                      |
| Storage temperature                         | -30 °C +80 °C                                                                                                                                            |
| Working temperature                         | -20 °C +60 °C                                                                                                                                            |



Equipment to be powered by 12-24 VDC LPS or Class 2 power source

## OPTIONS ON REQUEST

|                                                                                     | DESCRIPTION                                                                                                                    | CODE                          |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
|                                                                                     | IP67 polycarbonate box; dimensions: 170x140x95 mm<br>(four fixing holes Ø4 mm; centre distance: 152x122 mm)                    |                               |
|  | - transparent lid<br>- transparent lid; 4+2 M16x1.5 cable glands - plugs<br>- transparent lid; 4+2 PVC end-fittings for sheath | CASTL<br>CASTLPG9<br>CASTLGUA |
|  | ATEX II 3GD (zone 2-22) version<br>- transparent lid; 4+2 M16x1.5 cable glands - plugs                                         | CASTLATEX                     |

The Company reserves the right to make changes to the technical data, drawings and images without notice.