

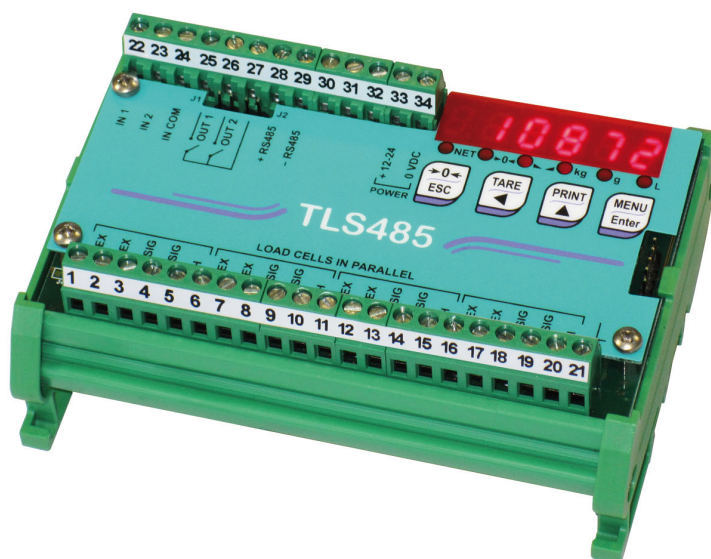
# TLS485

## WEIGHT TRANSMITTER

LAUMAS®



MODBUS RTU



### DESCRIPTION

- Weight transmitter suitable for back panel mounting on Omega/DIN rail or junction box (on request).
- Dimensions: 123x92x50 mm.
- 6-digit semi-alphanumeric red LED display (8 mm height).
- 6 signalling LED.
- 4-key keyboard.
- The instrument can be configured and managed using the free "Instrument Manager" PC software, which you can download from [www.laumas.com](http://www.laumas.com).

### INPUTS/OUTPUTS AND COMMUNICATION

- RS485 serial port for communication via protocols ModBus RTU, ASCII Laumas or continuous one way transmission.
- 2 optorelay outputs controlled by the setpoint values or via protocols.
- 2 optoisolated PNP digital inputs: status reading via serial communication protocols.
- 4 load cell dedicated inputs.

### MAIN FUNCTIONS

- Connections to:
  - PC/PLC via RS485 (up to 99 instruments with line repeaters, up to 32 without line repeaters);
  - remote display via RS485;
  - up to 8 load cells in parallel by junction box.
- Digital filter to reduce the effects of weight oscillation.
- Theoretical calibration (via keyboard) and real calibration (with sample weights and the possibility of weight linearization up to 8 points).
- Tare weight zero setting.
- Automatic zero setting at power-on.
- Gross weight zero tracking.
- Semi-automatic tare (net/gross weight) and preset tare.
- Semi-automatic zero.
- Displaying of the maximum weight value reached (peak).
- Direct connection between RS485 and RS232 without converter.
- Hysteresis and setpoint value 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	<0.01% full scale
Thermal drift	<0.0005% full scale/°C
A/D Converter	24 bit (16000000 points) - 80 Hz
Divisions (with measurement range ±10 mV and sensitivity 2 mV/V)	±999999 • 0,01 µV/d
Measurement range	±19.5 mV
Usable load cells sensitivity	±3 mV/V
Conversions per second	80/s
Display range	±999999
Decimals • Display increments	0 ÷ 4 • x1 x2 x5 x10 x20 x50 x100
Digital filter • Readings per second	10 levels • 5 ÷ 80 Hz
Optorelay outputs	2 - max 24 VDC/60 mA
Optoisolated digital inputs	2 - 5÷24 VDC PNP
Serial ports	RS485
Baud rate	1200, 2400, 4800, 9600, 19200, 38400, 115200 (bit/s)
Humidity (condensate free)	85%
Storage temperature	-30 °C +80 °C
Working temperature	-20 °C +60 °C

	Optorelay outputs	2 - max 24 VDC/60 mA
	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 (four fixing holes Ø4 mm; centre distance: 152x122 mm)	
	- transparent lid - transparent lid; 4+2 M16x1.5 cable glands - plugs - transparent lid; 4+2 PVC end-fittings for sheath	CASTL CASTLPG9 CASTLGUA
	- external keyboard - external keyboard; 4+2 M16x1.5 cable glands - plugs - external keyboard; 4+2 PVC end-fittings for sheath	CASTLTAST CASTLTASTPG9 CASTLTASTGUA
	ATEX II 3GD (zone 2-22) version - external keyboard; 4+2 M16x1.5 cable glands - plugs	CASTLTASTATEX