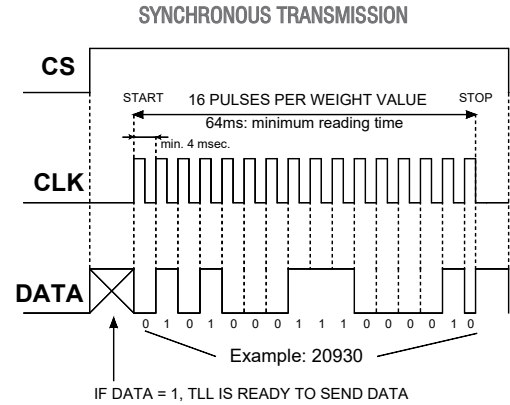
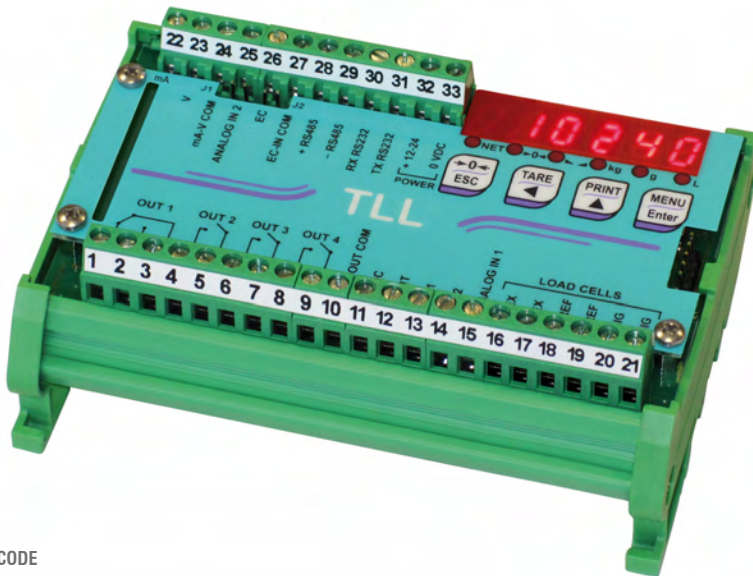




MODBUS RTU



CODE

TLL

TLLANA (analog output)

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.

INPUTS/OUTPUTS AND COMMUNICATION

- RS485/RS232 serial ports for communication via protocols ModBus RTU, ASCII Laumas or continuous one way transmission.
- Current or voltage 16 bit optoisolated analog output (TLLANA).
- 4 relay outputs controlled by the setpoint values or via protocols (2 outputs if synchronous serial transmission is present).
- 2 optoisolated PNP digital inputs: status reading via serial communication protocols (1 input if synchronous serial transmission is present).
- 1 load cell dedicated input.

MAIN FUNCTIONS

- Connections to:
 - PLC via synchronous serial communication;
 - PLC via analog output (TLLANA);
 - PC/PLC via RS485/RS232 (up to 99 instruments with line repeaters, up to 32 without line repeaters);
 - remote display via RS485/RS232;
 - 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 5 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 US UL Recognized component - Complies with United States and Canada standards




EAC Complies with the Eurasian Customs Union standards

UK CA 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) - 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	
Relay outputs	4/2 - max 115 VAC/150mA	
Optoisolated digital inputs	2/1 - 5÷24 VDC PNP	
Serial ports	synchronous transmission, RS485, RS232	
Baud rate	2400, 4800, 9600, 19200, 38400, 115200 (bit/s)	
Optoisolated analog output	16 bit = 65535 divisions. 0÷20 mA; 4÷20 mA (up to 300 Ω) 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	
	Relay outputs	4 - max 30 VAC, 60 VDC/150 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