TLB / TLB4

Weight transmitter

IP30 RS485 ANALOG OUTPUT

DIN / Omega rail mounting

TLB

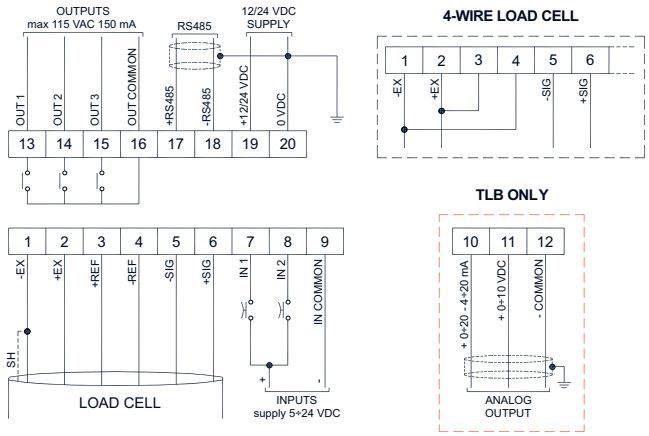
DESCRIPTION

- Weight transmitter suitable for back panel mounting on Omega/DIN rail.
- Dimensions: 115x25x120 mm.
- 6-digit semi-alphanumeric red LED display (8 mm height).
- 6 signalling LED.
- Four buttons for the system calibration.
- Removable screw terminal blocks.

INPUTS/OUTPUTS AND COMMUNICATION

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

ELECTRIC DRAWING



TLB4

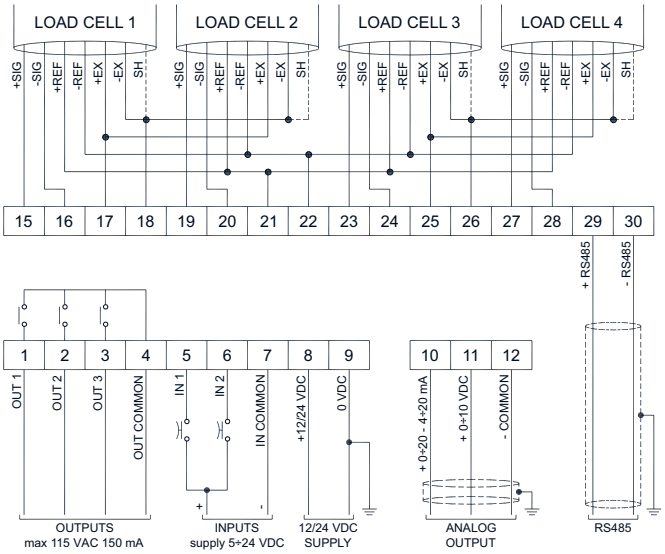
DESCRIPTION

- Weight transmitter with 4 independent reading channels with display of the total weight.
- Dimensions: 115x26x120 mm.
- 6-digit semi-alphanumeric red LED display (8 mm height).
- 6 signalling LED.
- Four buttons for the system calibration.
- IP30 front panel protection rating.
- Removable screw terminal blocks.

INPUTS/OUTPUTS AND COMMUNICATION

- RS485 serial port for communication via protocols ModBus RTU, ASCII Laumas or continuous one way transmission.
- 3 relay 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.

ELECTRIC DRAWING



BUS DI CAMPO

MODBUS RTU · MODBUS/TCP · ETHERNET POWERLINK certified product · DeviceNet · EtherNet/IP · PI CERTIFIED PROFIBUS • PROFINET · CANopen · CLPA · CC-Link · PROFIBUS · PROFINET · SERCOS interface · ETHERNET TCP/IP · EtherCAT

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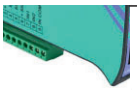
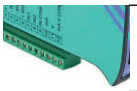
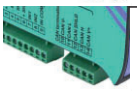
Rev. 00 del 05/03/2025

TLB / TLB4
Weight transmitter

	DESCRIPTION	CODE
	**RS485** serial port. Baud rate: 2400, 4800, 9600, 19200, 38400, 115200 (bit/s).	TLB485
	Optoisolated 16 bit **analog output**. Current: 0÷20 mA; 4÷20 mA (up to 300 Ω). Voltage: 0÷10 V; 0÷5 V; ±10 V; ±5 V (min 10 kΩ). Equipped with RS485 serial port.	TLB
	CANopen port. Baud rate: 10, 20, 25, 50, 100, 125, 250, 500, 800, 1000 (kbit/s). The instrument works as *slave* in a synchronous CANopen network. Equipped with RS485 serial port.	TLBCANOPEN
	**DeviceNet** port. Baud rate: 125, 250, 500 (kbit/s). The instrument works as *slave* in a DeviceNet network. Equipped with RS485 serial port.	TLBDEVICENET
	CC-Link port. Baud rate: 156, 625, 2500, 5000, 10000 (kbit/s). The instrument works as *Remote Device Station* in a CC-Link network and occupies 3 stations. Equipped with RS485 serial port.	TLBCCLINK
	Profibus DP port. Baud rate: up to 12 Mbit/s. The instrument works as *slave* in a Profibus DP network. Equipped with RS485 serial port.	TLBPROFI
	Modbus/TCP port. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as *slave* in a Modbus/TCP network. Equipped with RS485 serial port.	TLBMODBUSTCP
	Ethernet TCP/IP port. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works in an Ethernet TCP/IP network and it is accessible via web browser. Equipped with RS485 serial port.	TLBETHETCP
	2x Ethernet/IP ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as *adapter* in an Ethernet/IP network. Equipped with RS485 serial port.	TLBETHEIPN
	2x Profinet IO ports. Type: RJ45 100Base-TX. The instrument works as *device* in a Profinet IO network. Equipped with RS485 serial port.	TLBPROFINETION
	2x EtherCAT ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as *slave* in an EtherCAT network. Equipped with RS485 serial port.	TLBETHERCAT
	2x POWERLINK ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as *slave* in a Powerlink network. Equipped with RS485 serial port.	TLBPOWERLINK
	2x SERCOS III ports. Type: RJ45 10Base-T or 100Base-TX (auto-sensing). The instrument works as *slave* in a Sercos III network. Equipped with RS485 serial port.	TLBSERCOS

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 (only for TLB)	<0.01% full scale • <0.01% full scale
Thermal drift • Analog output thermal drift (only for TLB)	<0.0005% full scale/°C • <0.003% full scale/°C
A/D Converter	24 bit (16000000 points) - 4.8 kHz
Divisions (with measurement range ±10 mV and sensitivity 2 mV/V)	±999999 • 0.01 □V/d
Measurement range	±39 mV
Usable load cells sensitivity	±7 mV/V
Conversions per second	300/s
Display range	±999999
Decimals • Display increments	0÷4 • x1 x2 x5 x10 x20 x50 x100
Digital filter • Readings per second	10 levels • 5÷300 Hz
Relay outputs	3 - max 115 VAC/150 mA
Optoisolated digital inputs	2 - 5÷24 VDC PNP
Serial ports	RS485
Baud rate	2400, 4800, 9600, 19200, 38400, 115200 (bit/s)

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