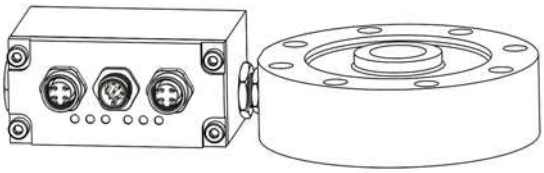
LCB

UNIVERSAL LOAD CELLS DIGITIZER

Wixom Office
269-209-7291
sales@ptrsales.com
Grand Rapids Office
616-446-5778

RS485 ANALOG OUTPUT IP67

COMING SOON



EXAMPLE OF APPLICATION WITH LOAD CELL

DESCRIPTION

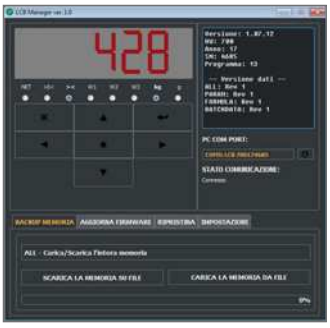
- LCB transforms an analog load cell (mV/V output) into a digital one; it can also be used on existing load cells to digitize the weighing system.
- Conceived for IoT applications (Internet of Things).
- PC configuration software via micro USB port.
- Status LED of the communication interface.
- Mounting: wired or integral to the load cell body via standard ¼ GAS fitting (specific adapters for different threads are supplied on request).
- IP67 AISI 304 stainless steel box (dimensions: 90x40x93 mm including flying connectors).
- 3x IP67 M12 flying connectors included in the supply.

LCB WITH FLYING CONNECTORS

INPUTS/OUTPUTS AND COMMUNICATION

- 1 micro USB port.
- 3 relay outputs controlled by the setpoint values or via protocols.
- 2 digital inputs: status reading via serial communication protocols.
- 1 load cell input.

PC CONFIGURATION SOFTWARE



MICRO USB FOR PC CONFIGURATION

CERTIFICATIONS

Complies with the Eurasian Custom Union standards

FIELDBUSES

MODBUS RTU MODBUS/TCP ETHERNET POWERLINK EtherCAT EtherNet/IP IO-Link PROFIBUS PROFINET CC-Link CC-Link IE CANopen SERCOS interface ETHERNET TCP/IP

INTERFACES AND FIELDBUSES

	CODE	
RS485. Male M12 circular connector, A-coded, 5-pin. Female M12 circular connector, A-coded, 5-pin. Baud rate: 2400, 4800, 9600, 19200, 38400, 115200 (bit/s).	LCBRS485	*coming soon*
RS485 + analog output. Current: 0÷20 mA; 4÷20 mA (up to 400 Ω). Voltage: 0÷10 V; 0÷5 V (min 2 kΩ). Male M12 circular connector, A-coded, 5-pin. Female M12 circular connector, A-coded, 5-pin.	LCBRS485ANA	
IO-Link. **2x** male M12 circular connector, A-coded, 4-pin. The instrument works as *device* in a IO-Link network.	LCBIOLINK	
CANopen. Male M12 circular connector, A-coded, 5-pin. Female M12 circular connector, A-coded, 5-pin. The instrument works as *slave* in a CANopen synchronous network.	LCBCANOPEN	
CC-Link IE. **2x** female M12 circular connectors, D-coded, 4-pin. The instrument works as *slave* in a CC-Link IE network.	LCBCCLINKIE	*coming soon*
CC-Link. Male M12 circular connector, A-coded, 4-pin. Female M12 circular connector, A-coded, 5-pin. The instrument works as *Remote Device Station* in a CC-Link network and occupies 3 stations.	LCBCCLINK	*coming soon*
Profibus DP. Male M12 circular connector, B-coded, 5-pin. Female M12 circular connector, B-coded, 5-pin. The instrument works as *slave* in a Profibus DP network.	LCBPROFIBUS	*coming soon*
Modbus/TCP. **2x** female M12 circular connectors, D-coded, 4-pin. The instrument works as *slave* in a Modbus/TCP network.	LCBMODBUSTCP	
Ethernet TCP/IP. Female M12 circular connector, D-coded, 4-pin. The instrument works in an Ethernet TCP/IP network and it is accessible via web browser.	LCBETHETCP	*coming soon*
Ethernet/IP. **2x** female M12 circular connectors, D-coded, 4-pin. The instrument works as *adapter* in an Ethernet/IP network.	LCBETHEIP	
Profinet IO. **2x** female M12 circular connectors, D-coded, 4-pin. The instrument works as *device* in a Profinet IO network.	LCBPROFINETIO	
EtherCAT. **2x** female M12 circular connectors, D-coded, 4-pin. The instrument works as *slave* in an EtherCAT network.	LCBETHERCAT	
POWERLINK. **2x** female M12 circular connectors, D-coded, 4-pin. The instrument works as *slave* in a Powerlink network.	LCBPOWERLINK	
SERCOS III. **2x** female M12 circular connectors, D-coded, 4-pin. The instrument works as *slave* in a Sercos III network.	LCBSERCOSIII	

LCB
UNIVERSAL LOAD CELLS DIGITIZER

LAUMAS®

MAIN FUNCTIONS

- Connections to:
  - PLC via analog output or fieldbuses;
  - PC/PLC via RS485 (up to 99 instruments with line repeaters, up to 32 without line repeaters);
  - up to 4 load cells in parallel by junction box.
- Digital filter to reduce the effects of weight oscillation.
- Theoretical calibration (via PC software) 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.
- Direct connection between RS485 and RS232 without converter.
- Configuration backup and restore via PC software.
- TCP/IP WEB APP
  Integrated software in combination with the Ethernet TCP/IP version for remote supervision, management and control of the instrument.

COMING SOON

CE-M version: 2014/31/EU-EN45501:2015-OIML R76:2006

- System parameters management protected by qualified access via software (password), hardware or fieldbus.
- Weight subdivisions displaying (1/10 e) via PC software.
- Three operation mode: single interval or multiple ranges or multi-interval.
- Net weight zero tracking.
- Calibration.
- Alibi memory (option on request).

BASE PROGRAM

- Hysteresis and setpoint value setting.

SINGLE PRODUCT LOADING PROGRAM

- 99 settable formulas.
- Automatic fall calculation.
- Tolerance error control.
- Precision batching through slow function.
- Precision batching through tapping function.
- Consumption storage.
- Batching start via external contact or fieldbus.

TECHNICAL FEATURES

Power supply and consumption	12÷24 VDC ±10%; 5 W
Number of load cells • Load cells supply	up to 4 (350 Ω) - 4/6 wires • 3.3 VDC/40 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) - 4.8 kHz
Divisions (with measurement range ±10 mV and sensitivity 2 mV/V)	±999999 • 6.6 nV/d
Measurement range	±26 mV
Usable load cells sensitivity	±7 mV/V
Conversions per second	300/s
Decimals • Display increments	0÷4 • x1 x2 x5 x10 x20 x50 x100
Digital filter • Readings per second	10 levels • 5÷600 Hz
Relay outputs	3 - max 115 VAC/150 mA - 24 VDC/200 mA
Digital inputs	2 - 5÷24 VDC
Micro USB port	B type - USB 2.0 (full-speed)
Humidity (condensate free)	85%
Storage temperature	-30 °C +80 °C
Working temperature	-20 °C +50 °C

OPTIONS ON REQUEST

	DESCRIPTION	CODE
	Load cell + LCB wiring.	LCBCOL
	COMING SOON Alibi memory.	OPZWALIBI