

LCT-2

Weighing Module

for
Fieldbus



DeviceNet™



- Complete signal conversion from load cell to field bus
- Amplifier with load cell excitation
- 20-bits A/D-converter
- Fast conversion (Up to 30 conv./s)
- Unipolar/Bipolar input range
- Result in mV/V or trimmed weight/force
- Terminal port for programming
- LCT-2 PDP for Profibus-DP
- LCT-2 DEV for DeviceNet
- EMI and RFI filter
- 24 VDC power supply
- Compact shielded metal enclosure
- For DIN-rail mounting

LCT-2 is an accurate and fast weighing module with high resolution made for industrial fieldbuses. The module can be used for conversion of signals from resistive bridge coupled load cells. Both the input signal from the load cells in mV/V and trimmed weight/force via the 'weighing program' of the module, can be monitored. The 'weighing program' has indication for stable weight, over/under load and min/max function.

LCT-2 includes load cell excitation with sense, low drift amplifier, 20-bits programmable A/D-converter and a fast microcontroller for the serial communication and internal supervision. Programming and trimming can be done from the fieldbus or via a separate RS-232 terminal port.

LCT-2 is powered with 24 VDC and well suited for connection to modern PLC-systems, process computers etc. Via the fast programmable A/D-converter and mean value calculation, the module can be used for both fast weighing applications like dosing scales, checkweighers, weight fillers and slow weighing like tank and silo weighing. The module is also suitable for force measuring since the input range can be programmed to be bipolar, which enables measuring of both positive and negative forces.

LCT-2 has a terminal port with RS232 interface for connection of an ANSI-terminal or PC/Laptop with ANSI-emulating terminal program like for example "Hyperterminal". Via the terminalen it is possible set all parameters and trim the scale plus monitor the result in mV/V or trimmed weight/force, enabling starting up and trimming without the operation of the control system or field bus.

Technical data

Signal conversion

Accuracy	±0.01 %
Load cell excitation	+5 VDC with sense
Max current	Max 100 mA
Input signal range	-4 - +4 mV/V
mV/V measuring:	
Divisions	±400 000
Sensitivity	0.01 µV/V
Measuring range weighing:	
Divisions	-25 000 - +25 000
Sensitivity	0.01 µV/V/division
Noise	Max 0.25 µV for 60 s
Nonlinearity	Max 15 ppm
Temperature drift:	
Zero	Max 0.01 µV/°C
Sensitivity	Max 5 ppm/°C
A/D-conversion	3.25 - 30 conv./s
Mean value calc.	1 - 100 values

Terminal

Interface	RS232
Emulation	ANSI
Baud	38400
Data format:	1 start bit + 8 data bits + 1 stop bit

Fieldbus

PDP	Profibus DP
DEV	DeviceNet
DATA-area:	
IN	16 Byte
OUT	16 Byte

Power supply

Voltage	24 VDC (18 - 30 VDC including ripple)
Ripple	Max 3 Vp-p
Power consumption	Max 6 W

EMC

Immunity	EN 61326-1, 1997 EN 61000-6-1, 2001 EN 61000-6-2, 2001
Emission	EN 61326-1, 1997 EN 61000-6-3, 2001 EN 61000-6-4, 2001

Temperature range

Operating	-10 - +45 °C
Storing	-25 - +85 °C

Size

With-Height-Deep	56 - 103 - 114 mm
DIN-rail	Fit to TS 35
Weight	0.5 kg

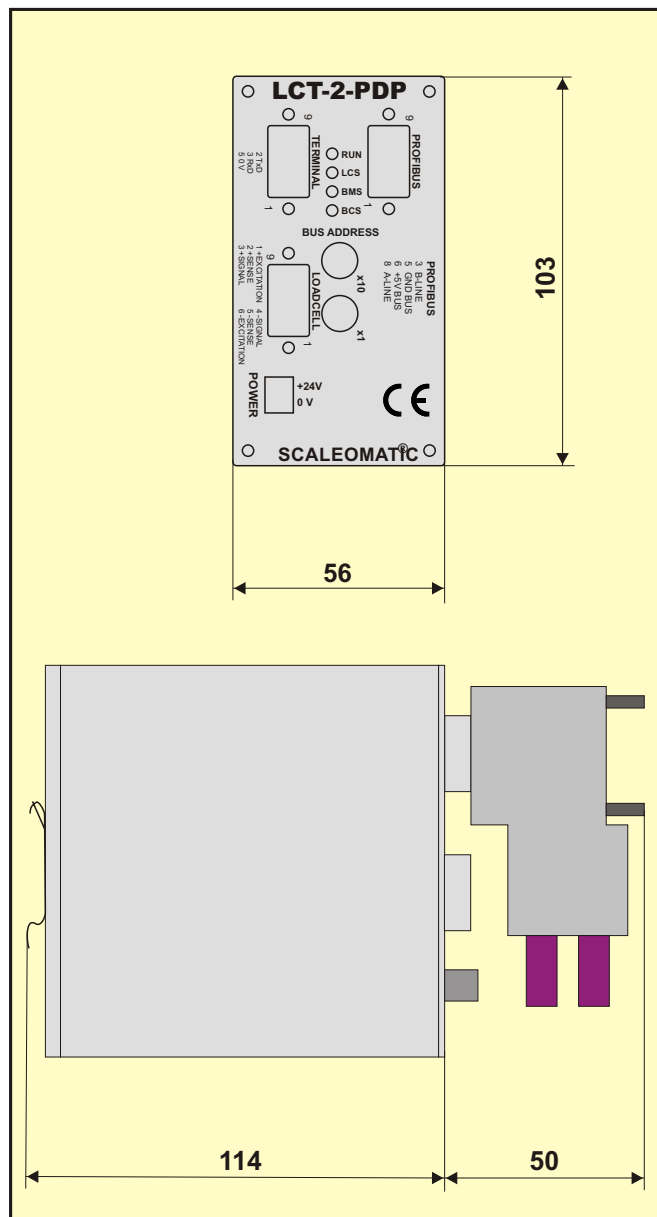
Fieldbus data

Profibus DP

Baud	Up to 12 Mbits/s
Address range	0-99

DeviceNet

Baud	125, 250 & 500 kbits/s
Address range	0-63



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