LCI608 1/8 DIN 4 / 8 Digit Panel Meter Indicators



The LCI608 Series 4/8 digit panel meter indicators are designed for measuring and integrating analog signals containing two sets of information at the same time, for example FLOW and TOTALIZATION. It may also be configured to accepts two simultaneous analog input signals and allowing an arithmetical operation between them.

Every input can be scaled linearly, square root (by two points where is possible to include a multiplier coefficient and an offset), or non-lineraly with up to 15 segments per active channel. The scaling on every input can be done by the 'Teach' method, consisting of inputting real signals instead of values on the keyboard.

The INTEGRATION (TOTALIZATION) is done only on channel one at the rate of 100 per second so that all readings are accumulated with the programmed coefficient.

The INTEGRATOR'S time base may be set for one second, one minute, one hour, or one day. The accumulated value can be modified by a factor between 0.0001 and 9999. The decimal point position is independent of measured display value for channel one.

It is also is possible to program a limit display value under which the readings are not accumulated into the TOTAL.

The LCI608 accepts input signals from Load Cells, Pressure transducers, Flow meters (measuring instantaneous FLOW as well as TOTAL accumulated), and measurment of DC current through a Current Shunt (ideal for Galvanic processes).

With 26 logical programmable functions, the LCI608 provides instantaneous display of ±9999 points and totalizer display from –9999999 to 99999999 points.

When used with one of the optional relay output cards, Setpoints may be related to the Net 1 value, Net 2 value, Total value or Mathematically calculated value.

Options include set point outputs, BCD Parallel output, RS-232/RS-485 computer communications, and 4 to 20 mA analog retransmission.

For the ultimate in digital panel meter performance, the LCI608 is the panel meter indicator you need for your application.

STANDARD FEATURES

- High Accuracy
- Peak and Valley Display
- Totalization Feature
- Dual Input Capability
- Built-in Excitation Power Supplies
- IP65 (NEMA 4X) Front Panel
- Digital Remote Control
- Optional Output Modules

CE

Input Ranges

Process Volts	**Minimum**	**Maximum**
0 - 10V	-13.5 V	+13.5 V
0 - 5V	-6.6 V	+6.5 V
0 - 1V	-1.2 V	+1.2 V
Process Milliamps	**Minimum**	**Maximum**
0/4 - 20mA	-25 mA	+25 mA
Load Cell	**Minimum**	**Maximum**
30 mV	-38 mV	+38 mV
60 mV	-75 mV	+75 mV
120 mV	-150 mV	+150 mV
300 mV	-305 mV	+305 mV
500 mV	-600 mV	+600 mV
Potentiometer	**Minimum**	**Maximum**
2.2 V	-2.4 V	+2.4 V

Excitation Voltages Selectable:

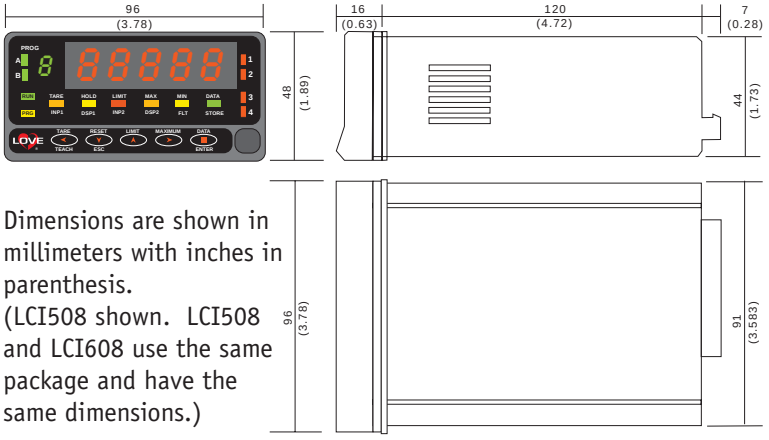
2.2 VDC @ 30 mA, Regulated, Fixed
5 VDC @ 120 mA, Regulated, Adjustable ±100 mV
10 VDC @120 mA, Regulated, Adjustable ±100 mV
24 VDC @ 30 mA, Non-regulated, Fixed

MOD-TRONIC INSTRUMENTS LIMITED
1 Delta Park Blvd, #12 Brampton, ON L6T 5G1
Tel 905-457-6322 or 1-800-794-5883
Fax 905-457-4716 or 1-800-830-7122
sales@mod-tronic.com www.mod-tronic.com

FRONT PANEL KEY FUNCTIONS



DIMENSIONS



Dimensions are shown in millimeters with inches in parenthesis.
(LCI508 shown. LCI508 and LCI608 use the same package and have the same dimensions.)

MODEL IDENTIFICATION

To order, specify part number by filling the boxes with the appropriate numbers.

LCI608 - □ □

Input
0 = Universal Input

Power Supply
0 = 120/240 VAC, 50-60 Hz
1 = 24/48 VAC, 50-60 Hz

Accessories: (Order Separately. See Pages 66-69 for details)

LCIA-01	Dual Relay Card. Two SPDT relays, 8A @ 240VAC
LCIA-02	Quad Relay Card. Four SPST relays, 0.2A @ 240 VAC
LCIA-03	Quad Transistor Output Card. Four NPN optically coupled transistors, 50 mA @ 50 VDC max.
LCIA-04	Quad Transistor Output Card. Four PNP optically coupled transistors, 50 mA @ 50 VDC max.
LCIA-05	Analog Retransmission, 4 to 20 mADC or 0 to 10 VDC, selectable.
LCIA-07	BCD Output Card.
LCIA-08	RS-232 Serial Communication (Modbus)
LCIA-09	RS-485 Serial Communication (Modbus)

SPECIFICATIONS

Process Input
Voltage input: ±(0-5/ 0-10)V
Input Impedance: 1MΩ
Voltage Input: ± 0-1V
Input Impedance: 100MΩ
Current Input (both): ±0-20 mA
Input Impedance (both): 11.8Ω

Load-Cell or mV Input
Voltage input: ±30,±60,±120,±300,±500 mV
4-wires, unipolar or bipolar
Input Impedance: 100MΩ

Potentiometer Input
Min. resistance: 120Ω
Excitation Voltage: 2.2V
Input Impedance: >10 MΩ

Excitation
2.2 V @ 30 mA not adjustable.
24 V @ 30 mA not regulated.
5 V ±100 mV @ 120 mA with fine adjust (50ppm/°C)
10 V ±10 mV @ 120 mA with fine adjust (50ppm/°C)

Display
Main Display: -9999/9999, 5 red digits, 7 Segments
Aux. Display: -9999999 / 9999999, 8 green digits 8 mm
Decimal Point: Programmable (both displays)
LED's: 8 (Functions and outputs)
Display Rate: 10/s, 100/s (totalizer)
Positive overflow: OVFr
Negative overflow: - OVFr

Conversion
Technical: ΣΔ
Resolution: ± 15 bits
Rate: 200/s
Resolution peak measure: ±15 bits

Integrator
Time base programmable: s, m, H, D
Integration rate: 100/s
Low cut-out: all ranges programmable

Accuracy at 23°C ± 5 °C
Error max: ±0.1% reading +2 digits
Temperature coefficient: 50 ppm/°C
Warm up time: 10 minutes

Power Supply
LCI608-00: 115/230VAC 50/60Hz
LCI608-01: 24/48VAC 50/60Hz
Consumption (without options): 5W
Maximum Consumption: 10W

Fuses (DIN41661) Recommended (not supplied)
230/115 V AC: Fuse 0.2A/250V
24/48 V AC: Fuse 0.5A/250V

Environmental
Operational temperature range: -10° ~ +60 °C
Storage temperature range: -25° ~ +85 °C
Relative humidity (noncondensing): < 95% @ 40 °C
Max. Altitude: 2000 m (6560 ft)

Mechanical
Dimensions: 96 x 48 x 120 mm
Panel Cutout: 92 x 45 mm
Weight: 600 g
Case Material: s/UL 94 V-0 Poly-carbonate
Front Panel: IP65

Reaction time
Minimum time to capture peak value of input signal: 10 ms
Hold-Display: 10 ms maximum
Hold-Analog output: 10 ms maximum
Hold-RS: 10 ms maximum
Logical Inputs, All: 10 ms maximum

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