

Weight Controller



FEATURES

- Designed for NIST Handbook 44 compliance
- Canadian weights and measures and NTEP CoC
- Rate-by-weight (Mass Flow) operation
- Expansion slot for A-B remote I/O, Modbus Plus, or future fieldbus
- FM and CSA approved
- Up to 8 setpoint relay outputs
- Optional 16 bit analog output

DESCRIPTION

LCm-200 'Expert' Series Controllers are specifically designed for Class III and Class IIIHD scale systems. Each unit meets NIST Handbook 44 (NTEP) and Canadian Weights and Measures legal-for-trade requirements. Tamper-proof sealing combined with configuration menu locks ensures maximum security for LCm-200 based systems.

LCm-200s are compatible with all strain gage type load cells and interface easily with any PLC, PC, or DCS based supervisory control system. High performance 'Expert' features include Plug-n-Weigh® quick calibration, rate-by-weight mass flow measurement, continuous on-line diagnostics, and

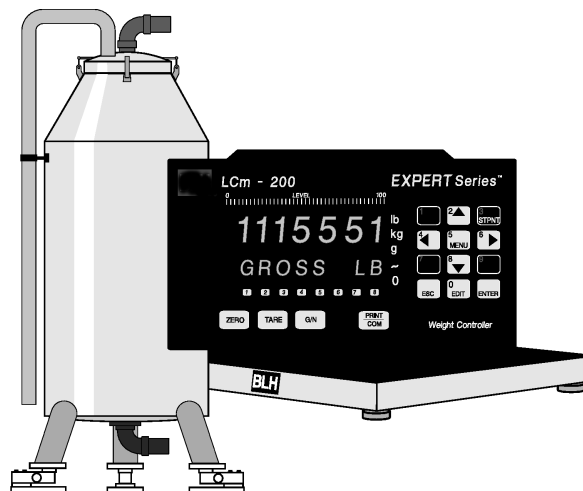
dynamic digital filtering. Process control options provide high resolution 16 bit analog output, eight solid state setpoint relay outputs, and various communication standard protocols such as Allen-Bradley Remote I/O, Modbus Plus, Modbus RTU, and Fisher Provox.

The integral Safe-Weigh® Software Operating System encompasses over 50 years of BLH application expertise. On-line diagnostics continuously monitor system performance and alert operating personnel to potential problems before they happen.

APPLICATIONS

- Inventory systems
- Custody transfer scales
- Calibration standards

CONFIGURATION



SPECIFICATIONS

Performance

Resolution	1,048, 576 total counts
Displayed Resolution	700.000 counts
Conversion Speed	50 milliseconds
Displayed Sensitivity	0.05 microvolts per count
Noise	0.4 microvolt per count (min. filt. setting)
Full Scale Range	3.5mV/V
Dead Load Range	100% full scale
Input Impedance	10 mohms min
Excitation Voltage	10Vdc at 250mA
Linearity	± 0.0015% full scale
Software Filter	multi variable up to 10,000 msec
Step Response	one conversion
Temp Coefficient Zero	± 2ppm/°C
Temp Coefficient Span	± 7ppm/°C

Environment

Operating Temp	- 10 to + 55°C (15 to 131°F)
Storage Temp	- 20 to + 85°C (- 5 to + 185°F)
Humidity	5 to 90% rh non-condensing
Voltage	117/230Vac ± 15% @ 50/60Hz
Power	15 watts max

Enclosure

Dimensions std.	4.63 x 8.40 x 6.5 in. HWD
NEMA 4/4X, 12 (opt)	8.5 x 13.5 x 10.45 in. HWD

Materials

Aluminum Case/Bezel	overlay meets 94V-O rating
Display	high intensity vacuum fluorescent
Weight Digits	7 - 0.59 in. high alphanumeric
Status Digits	8 - 0.39 in. high alphanumeric

Remote Digital Inputs (contact closure or dc logic compatible)

Closed (Momentary)	logic low
Open	logic high
Cable Length	100 feet maximum

DC Setpoint Outputs - 8 (Standard)

Type	open collector (current sinking)
Operating Voltage	5 - 35Vdc
ON Voltage	1.2Vdc @ 40mA or 0.8Vdc @ 1mA
OFF State Leakage	0.04µA @ 40Vdc
Power	external supply required

AC Setpoint Outputs - 8 (Optional)

Type	triac
Operating Voltage	12 - 240Vac
AC Frequency	20 - 500Hz
ON State V-Drop	1.2VRMS
Min-Max Load Current	5mA - 1A
Leakage Current	1mA @ full rated load voltage
Power	external supply required

Communications (Standard)

Serial RS-422/485	full or half duplex ASCII, printer, Provox, Modbus, or BLH network protocols
Parity	odd, even, or none (selectable)
Addressing	0 - 99

Special Interfaces (Optional)

Allen-Bradley	Remote I/O = 1/4 logical rack slave
Modbus RTU	slave
Fisher Provox	CL6921 weigh scale interface card
Modbus Plus	peer-to-peer

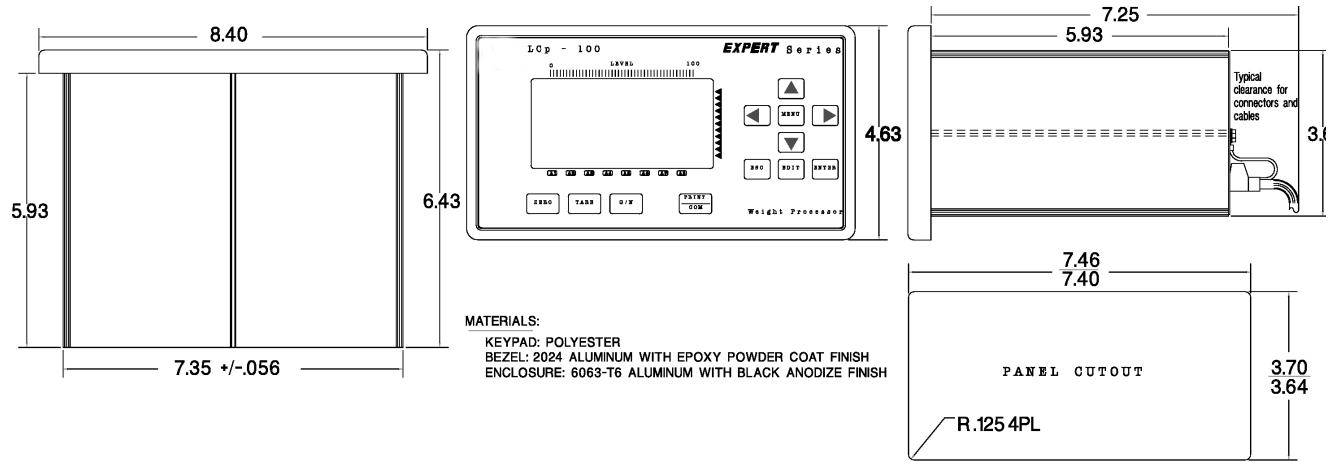
Analog Output (Optional)

Conversion	16 bit D-A
Current Selections	4-20 or 0-20mA @ 600Ω, 0-24mA @ 500Ω

Approvals

Can. Weights/Meas.	Class III/IIHD nmax 10000/20000
NTEP	Class III/IIHD nmax 10000/20000
CSA	C22.2 (all applicable sections)
FM (Factory Mutual)	3611

DIMENSIONS



BLH is continually seeking to improve product quality and performance. Specifications may change accordingly.