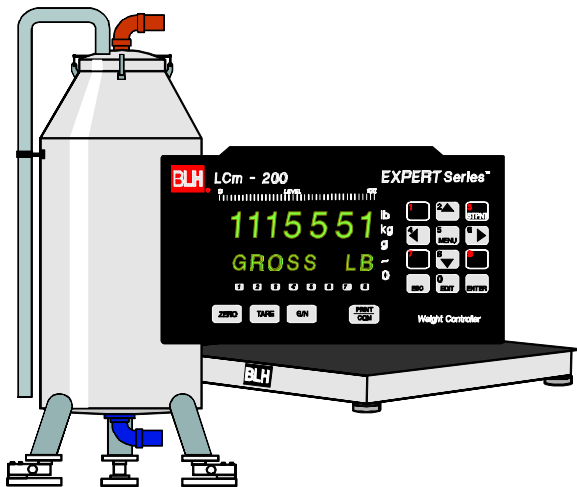


LCm-200 Weight Controller**Applications:**

**Inventory Systems
Custody Transfer Scales
Calibration Standards**



- **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**

**Product 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.

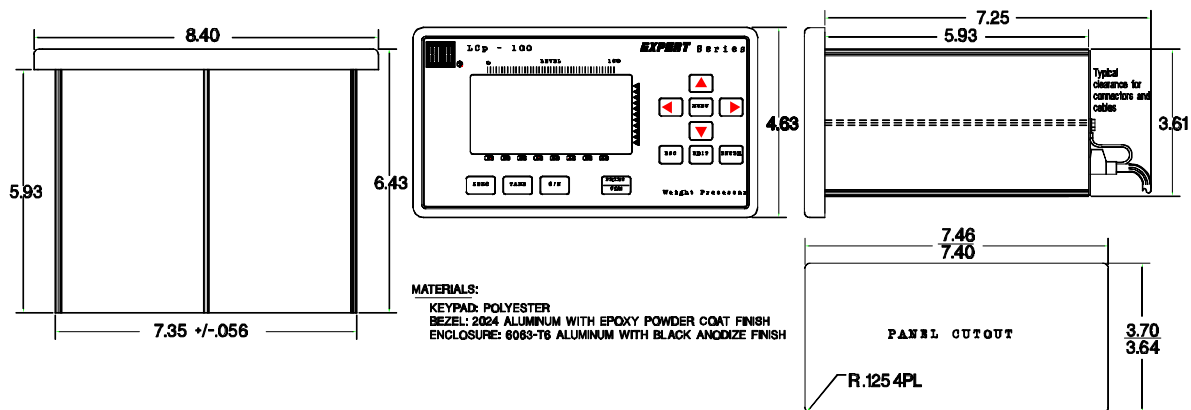
LCm-200s are compatible with all strain gage type load cells and interface easily with any PLC, PC, or DCS based supervisory control system. High performance 'Expert' features include Plug-n-Weigh® quick calibration, rate-by-weight mass flow measurement, continuous on-line diagnostics, and dynamic digital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

BLH Electronics, Inc.*An ISO 9001 Registered Company*

Product Specifications and Outline Dimensions

Performance		DC Setpoint Outputs - 8 (Standard)	
Resolution	1,048,576 total counts	Type	open collector (current sinking)
Displayed Resolution	700,000 counts	Operating Voltage	5 - 35 Vdc
Conversion Speed	50 milliseconds	ON Voltage	1.2 Vdc @ 40 mA or 0.8 Vdc @ 1 mA
Displayed Sensitivity	0.05 microvolts per count	Off State Leakage	0.04 μ A @ 40 Vdc
Noise	0.4 microvolt per count (min.filt. setting)	Power	external supply required
Full Scale Range	3.5 mV/V	AC Setpoint Outputs - 8 (Optional)	
Dead Load Range	100% full scale	Type	triac
Input Impedance	10 m-ohms min	Operating Voltage	12 - 240 Vac
Excitation Voltage	10 Vdc at 250 mA	AC Frequency	20 - 500 Hz
Linearity	+/-0.0015% full scale	ON State V-Drop	1.2 Vrms
Software Filter	multi-variable up to 10,000 msec	Min-Max Load Current	5mA - 1A
Step Response	one conversion	Leakage Current	1 mA @ full rated load voltage
Temp Coefficient Zero	+/- 2ppm/ $^{\circ}$ C	Power	external supply required
Temp Coefficient Span	+/- 7ppm/ $^{\circ}$ C	Communications (Standard)	
Environment		Serial RS-422/485	full or half duplex ASCII, printer, Provox, Modbus, or BLH network protocols
Operating Temp	-10 to +55 $^{\circ}$ C (15 to 131 $^{\circ}$ F)	Parity	odd, even, or none (selectable)
Storage Temp	-20 to +85 $^{\circ}$ C (-5 to +185 $^{\circ}$ F)	Baud Rates	300, 1200, 2400, 9600, or 19200
Humidity	5 to 90% rh non-condensing	Addressing	0 - 99
Voltage	117/230 Vac +/-15% @ 50/60 Hz	Special Interfaces (Optional)	
Power	15 watts max	Allen-Bradley	Remote I/O - 1/4 logical rack
Enclosure		Modbus RTU	slave
Dimensions std.	4.63 x 8.40 x 6.5 in. HWD	Fisher Provox	CL6921 weigh scale interface card
NEMA 4/4X, 12 (opt)	8.5 x 13.5 x 10.45 in. HWD	Modbus Plus	peer-to-peer
Materials		Analog Output (Optional)	
Aluminum Case/Bezel	overlay meets 94V-O rating	Conversion	16 bit D-A
Display		Current Selections	4-20 or 0-20mA @ 600 Ω , 0-24mA @ 500 Ω
Type	high intensity vacuum fluorescent	Internal Service Modem	
Weight Digits	7 - 0.59 in. high alpha numeric	Baud Rate	2400: Bell 212 and 103 compatible
Status Digits	8 - 0.39 in. high alpha numeric	Availability	U.S.A. and Canada only
Remote Digital Inputs (contact closure or dc logic compatible)		Approvals	
Closed (momentary)	logic low	Can. Weights/Meas.	Class III/IIHD nmax 10000/20000
Open	logic high	NTEP	Class III/IIHD nmax 10000/20000
Cable Length	100 feet maximum	CSA	C22.2 (all applicable sections)
		FM (Factory Mutual)	3611



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

<p>MAIN OFFICE 75 Shawmut Road Canton, MA 02021 Tel: (781) 821-2000 Fax: (781) 828-1451 http://www.blh.com</p>	<p>BLH Electronics, Inc. <i>ISO 9001 Registered</i> U.S.A. Facility</p>	<p>CANADA 41 Horner Ave, Unit 5 Toronto, Ontario M8Z 4X4 Tel: (416) 251-2554 Fax: (416) 251-2690 Toll Free: (800) 567-6098</p>
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Ordering Specification Code

LCm-200- [M]-[AP]-[C]-[B]-[M] Indicating Weight Transmitter



Approved for Legal for Trade by Canadian Weights and Measures and NTEP
Includes Rate By Weight and 8 Setpoints

[M] MOUNTING

- [1] NEMA 4X PANEL MOUNT
- [2] #1 & FM/CSA DIV. 2 APPROVAL (CLI, DIV2, GRP A-D,FG)
- [5] NEMA 4X STAINLESS STEEL WALL MOUNT ENCLOSURE
- [6] #5 & FM/CSA DIV. 2 APPROVAL (CLI,II, DIV2, GRP A-D,FG)
- [7] #5 with MODEL 306 INTERNAL SUMMING BOARD
- [8] #6 with MODEL 306 INTERNAL SUMMING BOARD
- [13] #6 with TYPE Y PURGE SUITABLE FOR DIV. 1 AREAS

[A] EXPANSION SLOT A

- [1] NONE
- [3] MODBUS PLUS
- [4] ALLEN BRADLEY REMOTE I/O

[P] PROCESS INPUTS & OUTPUTS

- [1] REMOTE FUNCTION INPUT (zero, gross/net, tare, print)
- [2] #1 and ANALOG CURRENT OUTPUT

[C] COMMUNICATION

- [1] RS-485/422 W/ ASCII PROTOCOL & DIGISYSTEM +

[B] EXPANSION SLOT B

- [1] None
- [2] 8 Open Collector DC Outputs
- [3] 8 Solid State Relay Outputs

[M] MODEM/ON-LINE SERVICE

- [1] NONE