

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
- FM approved
- Up to 8 setpoint relay outputs
- Optional 16 bit analog output

APPLICATIONS

- Inventory systems
- Custody transfer scales
- Calibration standards

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. Tamperproof sealing combined with configuration menu locks ensures maximum security for LCm-200 based systems.

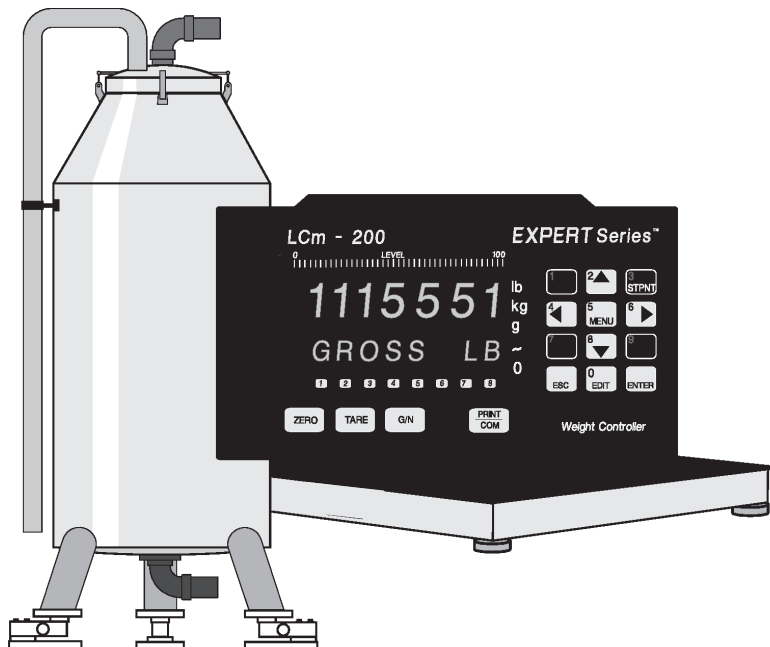
LCm-200s are compatible with all strain gage type load cells and interface easily with any PLC, PC, or DCS based supervisory control system. High performance "Expert" features include Plug-n-Weigh® quick calibration, rate-by-weight mass flow measurement, continuous on-line



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.

CONFIGURATION



Weight Controller

SPECIFICATIONS		PARAMETER	VALUE
PERFORMANCE		Resolution	1,048, 576 total counts
Displayed Resolution			700.000 counts
Conversion Speed			50 ms (20 updates per second)
Displayed Sensitivity			0.05 mV per count
Noise			0.4 µV per count (min. filt. setting)
Full Scale Range			3.5 mV/V
Dead Load Range			100% full scale
Input Impedance			10 mΩ min.
Excitation Voltage			10 VDC at 250 mA
Linearity			±0.0015% full scale
Software Filter			multi variable up to 10,000 ms
Step Response			one conversion
Temp Coefficient Zero			±2 ppm/°C
Temp Coefficient Span			±7 ppm/°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			117/230 VAC ±15% @ 50/60 Hz
Power			15 W max.
ENCLOSURE			
Dimensions (std)			4.63 × 8.40 × 6.5 in H × W × D
NEMA 4/4X, 12 (opt)			8.5 × 13.5 × 10.45 in H × W × D
MATERIALS			
Aluminum Case/Bezel			overlay meets 94 V-O rating
Display			high intensity amber LED display
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 ft maximum
		PARAMETER	VALUE
		DC SETPOINT OUTPUTS – 8 (STANDARD)	
		Type	open collector (current sinking)
		Operating Voltage	5-35 VDC
		ON Voltage	1.2 VDC @ 40 mA or 0.8 VDC @ 1 mA
		OFF State Leakage	0.04 µA @ 40 VDC
		Power	external supply required
		AC SETPOINT OUTPUTS – 8 (OPTIONAL)	
		Type	triac
		Operating Voltage	12-240 VAC
		AC Frequency	20-500 Hz
		ON State V-Drop	1.2 V _{RMS}
		Min-Max Load Current	5 mA – 1 A
		Leakage Current	1 mA @ 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 = ¼ logical rack
		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 0-20 mA @ 600 Ω, 0-24 mA @ 500 Ω
		APPROVALS	
		Can. Weights/Meas.	Class III/IIHD nmax 10000/20000
		NTEP	Class III/IIHD nmax 10000/20000
		FM (Factory Mutual)	3611



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