Model LCp-100 HS

Vishay BLH

Web Tension Indicator

FEATURES

- High speed 120 update per second A/D conversion speed
- 1 Million count resolution
- Rapid response, high resolution (16 bit) analog output
- RS-422/485 communication port with ASCII or modbus RTU protocol
- Quick-cal set-up
- Dynamic digital process filtering
- Real time system & loop diagnostics

DESCRIPTION

The LCp-100 HS is a high performance tension indicator and transmitter with features and options focused on the requirements of time critical, high-speed web measurement and control. It is compatible with all strain gage type tension transducers and designed to connect easily with any PLC, DCS, or PC based process control system. Special design emphasis has been placed on simplicity, reliability, and expandability.

Both the front panel display and the 16 bit analog output are updated every 8.3 milliseconds (120 updatesper second). This rate provides precise control for web applications running at 2000 feet per minute and faster.

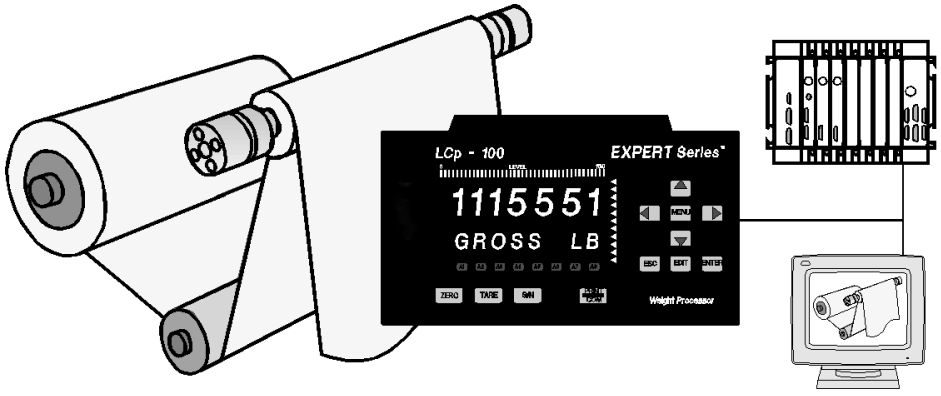
Units are equipped with an expansion slot for installing a wide range of specialized digital interfaces such as Allen-Bradley Remote I/O, Modbus Plus, or Profibus. An integral RS-422/485 serial port provides standard ASCII or Modbus RTU communication for all other devices.

The LCp-100 Operating System encompasses over 50 years of Vishay BLH application expertise. Quick calibration and setup procedures save time, money, and even field service calls. On-line diagnostics continuously monitor system performance and alert service personnel to potential problems before they happen.

APPLICATIONS

- Paper, converting, roofing machines
- Mining conveyor equipment

CONFIGURATION



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SPECIFICATIONS

Performance

Resolution	1048576 total counts
Displayed Resolution	700,000 counts
Conversion Speed	10 to 133 msec (5-selections)
Displayed Sensitivity	0.05 uV per count
Noise	0.4 uV per count (min. filt. setting)
Full Scale Range	+/-3.5 mV/V
Dead Load Range	100% full scale
Input Impedance	10 m-ohms min
Excitation Voltage	10 Vdc @ 250 mA
Linearity	+/-0.0015% full scale, +/-0.0003%
Software Filter	multi-variable up to 10,000 msec
Step Response	one conversion
Temp Coefficient Zero	+/-2ppm/°C
Temp Coefficient Span	+/-7ppm/°C
Operating Temperature	-10 to 55° C (15 to 131° F)
Storage Temperature	-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 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-0 rating

Display

Type	high intensity cobalt green vacuum fluorescent
Active Digits	7 digit alpha numeric .59" high for weight: 8 digit alphanumeric .39" high for status

Remote Digital Inputs (Optically Isolated)

(Contact closure or do logic compatible)	
Closed (Momentary)	logic low
Open	logic high
Cable Length	100 feet max.

Communications (Standard)

Serial RS-422/485	full or half duplex BLH Digi-System Plus Network, ASCII, Provox, or Modbus odd, even or no parity-selectable
Baud Rates	300, 1200, 2400, 4800, 9600, 19200
Addressing	0-99

Special Interfaces (Optional)

Allen-Bradley	Remote I/O -1/4 Logical Rack
Modbus RTU	slave
Modbus Plus	peer-to-peer (with global data)
Profibus	slave

Analog Output (Optional)

Conversion	16 bit D-A
Current Selectable	4-20 mA or 0-20 mA - 600 ohm max.

Approvals/CE Marking

FM (Factory Mutual)	3611
CSA	C22.2 (all applicable sections)
IEC 801-2	ESD susceptibility, category B
IEC 801-3	radiated electromagnetic field, cat. A
IEC 801-4	conducted line transients, cat. B
EMI Emissions	FCC part 15 subpart B. Class A Canadian Dept. of comm., Class A
EN 5501	Group 1, Class A
IEC 1010-1/EN61010-1	Electrical Safety
EN50082-1 1992	Susceptibility: subparts 801,2,3, & 4
EN55011 Emissions:	Equipment Class I, Group A

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

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