MP2000

Description

The micro processor based LVDT indicator and set-point controller is designed for industrial and process control applications utilizing any LVDT/RVDT-based measurement device. In addition to displaying real-time readings of LVDTs, RVDTs and gage heads, the MP2000 also displays MIN, MAX, TIR, A+B and A-B values.Programmable, opto-isolated, open collector setpoints may be assigned to any of the above functions. A 17-bit analog-to-digital converter provides excellent performance and resolution. A new standard 9- pin RS-232 pin- out provides serial data output to a PLC or PC com port. MP Series readout/controllers are packaged in a 1/4 DIN aluminum case with a EL back-lit, it-mapped LCD display. (Units are splash-proof when mounted with a gasket.)

Set-point Control

Four user-programmable digital setpoints are used to monitor any display parameter. Any combination of high or low setpoints may be selected. User programmable, high and low hysteresis values may be used to create set-point dead band, for prevention of control relay chatter. Each channel decimal point is individually programmable, via the set-up menu.

Auto-Calibration

A front panel pushbutton auto-zeros (tares) over the ± full scale range. Auto-calibration eliminates calculation of slope or gain factors. Calibration and setup parameters are stored in nonvolatile memory for retention on power down or interruption.

Readings

A large, easy to read, bit-mapped display provides user-friendly, menu driven prompts for simple push-button system setup, calibration and monitoring of in-process measurement parameters.

- Current value
- min/max
- A+B (sum of two channels)
- A-B (difference between two channels)
- TIR (Total Indicated Run-out)

Outputs

A real-time scaled analog output, proportional to the digital readout is provided for each LVDT channel. An RS-232 output is provided for data transfer to a computer at 1200 to 19.2K baud.

Features

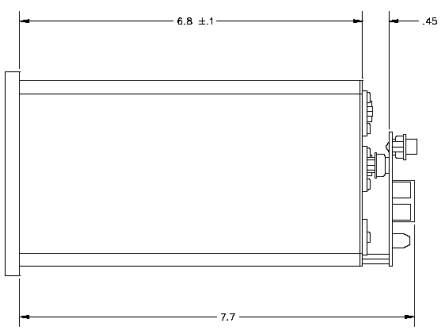
- Large 10 mm High Display Characters
- Software Set-Up Menu
- Industry Standard 9-Pin RS-232 Connector
- Greatly Enhanced Long-Term Reliability
- Rugged DIN Style Power Supply Connector
- Two Channels for the Price of One

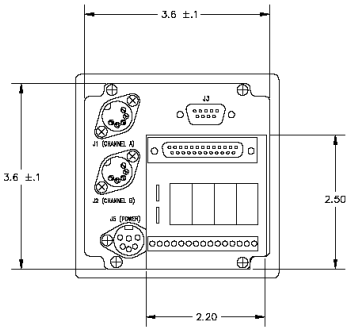
Applications

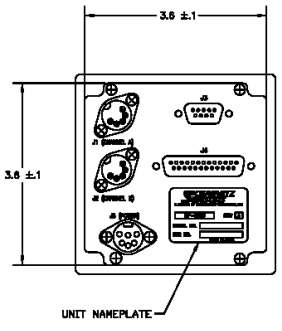
- LVDT-Based Weighting Systems
- Pass/Fail Part Sorting
- Roller Gap Control
- Concentricity Gaging
- Press Cycle Control
- Part Classification

Dimensions

NOTE: shown with optional relay card





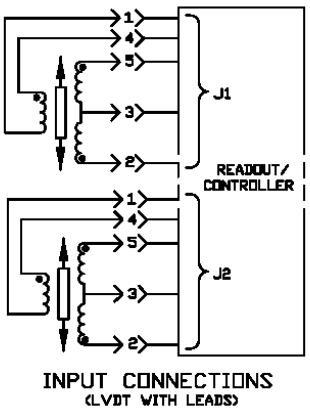


04.2016 | version 201110 - Rev 1

Specifications and features

LVDT Excitation Voltage	1 and 3 rms
LVDT Drive Current	Up to 25 mA rms per LVDT
Excitation Frequency	2.5, 3.3, 5, and 10 kHz (+/- 5%)
Input Sensitivity	0.6 or 1.2 V rms for full scale readout
Input Impedance	>100k ohms
Linearity	≤ +/- 0.02% of full scale
Digital Display	5 digit +/- 99.999 10 mm (0.4") high bitmapped LCD with EL Backlight
Analog Outputs	+/- 5 or 0 to 10 Vdc
Set-Points	4 user-programmable, high or low with on-board LED indicators
Set-Point Hysteresis	User Programmable
Set-Point Outputs	Opto-isolated open collector logic outputs, 5 VDC, 4 mA per set-point
Response	Typically within 20mS
Operating Temperature	0 to 55C
Power Requirements	100 to 240 VAC, 47 to 63 Hz

Connections



INPUT CONNECTIONS
(LVDT WITH LEADS)

PIN OUT CONNECTIONS (J3)

PIN	PIN
1 –	5 – DIG GND
2 – TxD	6 – DTR
3 – RxD	7 –
4 – DSR	8 –
	9 –

PIN OUT CONNECTIONS (J4)

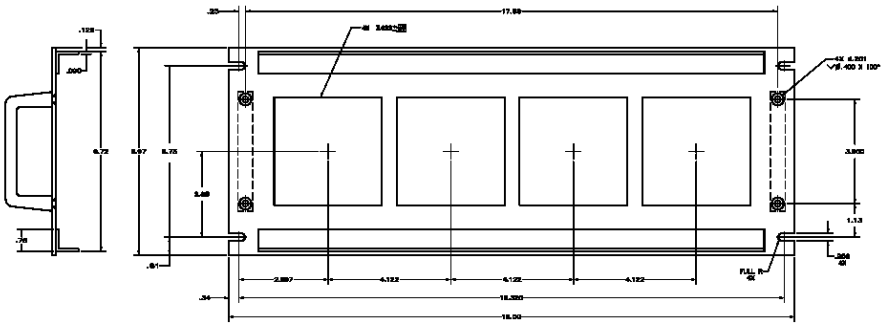
PIN		PIN
1 – SETPOINT #4		14 – REMOTE ZERO
2 – DSR	RS232	15 – SETPOINT #3
3 – TxD		16 – SETPOINT #2
4 – DTR	RS232	17 – SETPOINT #1
5 – RxD		18 – SP RETURN
6 –		19 – REMOTE RESET
7 – SYNC INPUT		20 – OUTPUT CHAN B
8 – SYNC OUTPUT		21 – OUTPUT CHAN A
9 –		22 –
10 –		23 – Vcc (5VDC)
11 –		24 – DIG GND
12 –		25 – ANALOG GND
13 –		

Accessoires

- Relay Option Board
- Lab Stand / Bench Mount
- 4-Up Rack Adaptor (bottom)

Ordering info

Model: MP-2000
P/N: 02291335-000



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Germany | Suisse | Austria
ALTHEN GmbH Sensors & Controls
Dieselstrasse 2
65779 Kelkheim, Deutschland
Tel: + 49 (0)6195 - 70060
sales@althen.de

Netherlands | Belgium | Luxembourg
ALTHEN bv Sensors & Controls
Vlietweg 17a
2266 KA Leidschendam, The Netherlands
Tel: +31 (0)70 392 4421
sales@althen.nl

France
ALTHEN Sensors & Controls
26, avenue de la Méditerranée
34110 Frontignan, France
Tél : 0033 (0)4 67 78 61 66
sales@althen.fr

USA | Canada
ALTHEN Inc Sensors & Controls
2375 Woodacre Drive
Oceanside CA 92056, USA
Tel: +1 858-633-3572
sales@althen.com

Other Countries
For our international sales
partners please contact us
by email at sales@althen.com

www.althen.com