

Digital Meter

Model VL

1/8 DIN Panel Meter

Features

- 5 digits to +/-99,999
- On-board power supply for transmitter
- 50 to 60 conversions per second
- Universal input power from 85-264 VAC and 90 to 370 VDC
- NEMA 4X/IP 56 front panel
- Numerous options available
- RoHS compliant



The VL digital meter, with exceptional flexibility, performance, and low cost is an ideal solution for a wide range of applications. A full 5-digit display (+/-99,999) with an accuracy of 0.01%FS +/-1 count, and 60 readings per second are some of the standard features. The isolated 5, 10, or 24 VDC output power is ideal for transmitters and eliminates the need for an external power supply. Universal input supply is available from 85 to 264 VAC (90 to 370 VDC). For low input power, the 9 to 37 VDC (8 to 28 VAC) option is available. The compact 1/8 DIN panel with NEMA 4X/IP 56 front panel withstands the harshest environments. More standard features include peak value display, auto-tare, which allows the display to be zeroed for any input signal, and programmable lock-out modes for security in the field.

The flexibility of this meter is most evident in its wide variety of options and ease of use through plug in circuit boards. The meter can be set up for all pressure transmitter signals, mV to mA and can read in any engineering unit up to 99,999. 100-Ohm Platinum RTD and Thermocouple input are also available. Isolated dual setpoint options are available for alarm and control (dual 10 amp contact relays or dual opto-isolated AC/DC solid state relays), and can be set to latching or non-latching mode. Isolated 0-10 V and 0-20 mA linearized analog output is also available and scaled to the meter reading by the front panel buttons. If serial communications is desired, the isolated RS-232, RS-485, or parallel BCD output is also available.

For even more features, the extended main board option allows for custom curve linearization, ideal for profiling odd-sized tanks. To display this volume, up to 240 data points can be used to calculate and compensate for the non-linearities. Displaying the rate based on successive readings is also possible with the extended board. Contact Viatran today for more information on our VL meters.

Display

Type	Five 7-segment, 14.2 mm (.56") high LED digits plus 3 LED indicators
Display color	Red or green
Display range	-99999 to +99999 and -99990 to +99990

A to D Conversion

Technique	Concurrent Slope™, Pat. 5,262,780
A to D rate	60/s at 60 Hz, 50/s at 50 Hz
Output update rate	56/s at 60 Hz, 47/s at 50 Hz
Display update rate	3.5/s at 60 Hz, 3/s at 50 Hz

Accuracy at 25°C

DC volts, DC amps, ratio	0.01% FS +/-1 count
Thermocouple	0.3°C max
RTD	0.1°C max
True RMS (1 to 100%, 10 Hz to 10 kHz)	0.1% FS
Loadcell	0.01% FS +/-1 count

Temperature Coefficients

Span tempco	0.003% of reading /°C
Zerotempco	0.1 digits/°C
TC reference junction	0.05 degree/degree

Noise Rejection

CMV, DC to 60Hz	Safety-rated to 250 VAC 4.2 kVp per High Voltage Test
CMR, DC to 60 Hz	130 dB
NMR to 50/60Hz line	90 dB with min filtering

Environmental

Operating temperature	0°C to 55°C
Storage temperature	-40°C to 85°C
Relative humidity	95% at 40°C, non-condensing
Protection	NEMA 4X when mounted in panel

Operating Power

Voltage (std)	85 to 264 VAC or 90 to 370 VDC
Voltage (opt)	8 to 28 VAC or 9 to 37 VDC
Power frequency	DC or 47 Hz to 440 Hz

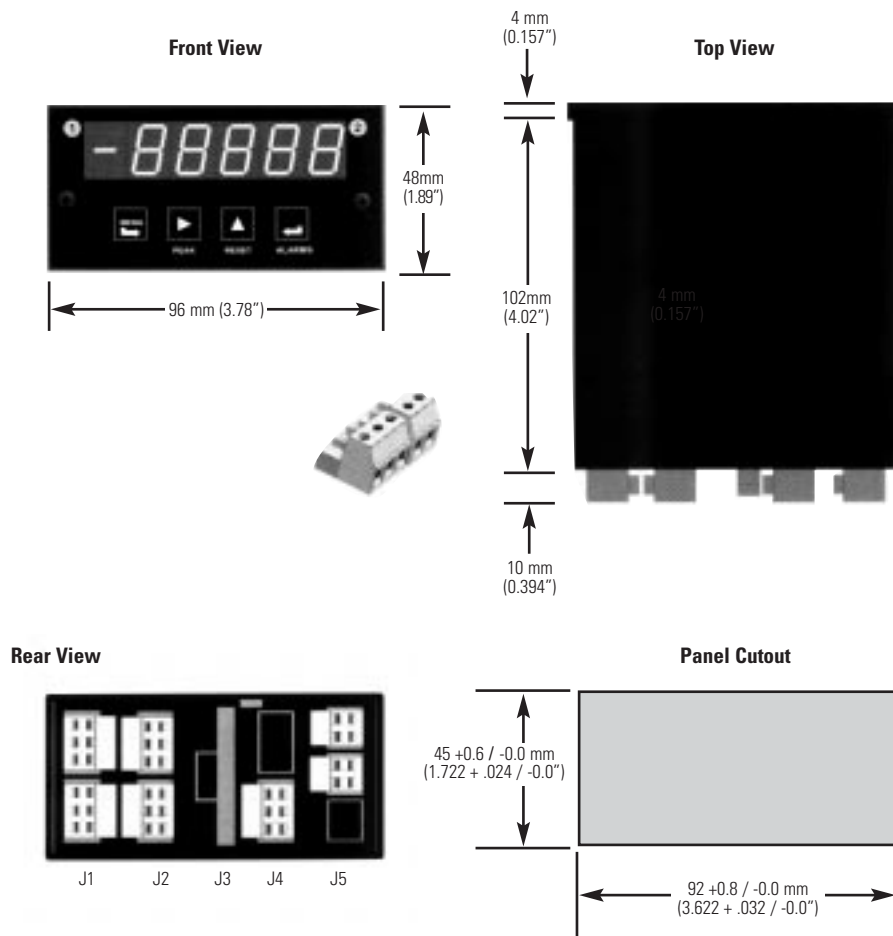
Isolated Excitation

Power Output	Output level	5 VDC, 5%, 100 mA 10 VDC, 5%, 120 mA 24 VDC, 5%, 50 mA
Isolation (power gnd)		Safety-rated to 250 VAC 4.2 kVp per high voltage test



Viatran Model VL Specifications

MECHANICAL



The VL uses UL/VDE/CSA rated screw-terminal connectors that plug into a mating PC board jack. The RS-232 and RS-485 boards use an RJ-11 phone jack. The BCD board uses a 30-pin, 0.1" mass-termination ribbon cable connector.

DIGITAL METER WITH NEMA 4X ENCLOSURE



This information is accurate to the best of the manufacturer's knowledge, however, we reserve the right to change specifications at any time. Please contact your sales representative for specific order inquiries.

An ISO 9001:2008 Certified Company

98DS150VLM_b