



DATUM 2000™

Dual channel meter

Features

- Internal ground referenced 12 VDC and 24 VDC power supply provides excitation power for the Setra pressure transducer
- UL approved power supply
- 1/8 DIN package (meter)
- 1/4 DIN package (manometer)
- High accuracy
- Internal reference voltage for easy calibration

Applications

- Dual channel
- User adjust Hi/Lo alarms
- Easy front panel setup
- Pressure displayed in desired engineering units
- Tabletop or panel mount

The DATUM 2000™ is a self-contained dual channel system for accurately displaying output from one or two transducers (or transmitters) located at a remote location. It features an analog to digital converter with an LED display.

Programmed with a selectable menu, the DATUM 2000™ can be calibrated by the user to the pressure ranges of the various Setra pressure transducers and transmitters or other analog instruments.

Two buttons conveniently located on the front panel allow the user to access the menu. The menu includes: selecting a channel, adjusting or calibrating the output of the meter, setting the decimal point, zero adjustment and Hi/Lo Alarms.

Manometer w/ transducer installed

The DATUM 2000™ manometer is a complete system with built-in-pressure or vacuum transducer. A wide selection of standard pressure ranges is available for gauge, absolute, differential and vacuum measurements from ± 0.25 inches WC to 1000 psi.

The transducer installed in the manometer operates on channel one of the two channel meter. Channel two is available for any other voltage or current input from another remote instrument.

Setra pressure transducer Models 204, 204D, 239 and 270 are available for installation in the 1/4 DIN Datum manometer.



Meter and manometer specifications

Display

Type	Light emitting diode
Color	Red
Height of digits	0.56 inch
Maximum readout Reading rate	-9999 to +31999 2 to 3 times per second depending on input voltage
Overload signal (over range reading)	OVEr
Underload signal (under range reading)	UndEr
Polarity sign	Negative only
Brightness	Constant

Adjustment capabilities (accessible through the user set-up menus)

Voltage inputs	+11 to -11 volts
Current inputs	0 to 20 mA
Maximum reading	+31999
Minimum reading	-9999

Input specifications

Transmitter input signal	4-20 mA
Transmitter input impedance	150 ohm
Transmitter input voltage drop	3 VDC (max.)
Transducer input signal	+11 VDC to -11 VDC
Transducer input impedance	45K ohm

Physical

Operating temperature	32° to 130°F (0° to 55°C)
Storage temperature	-40° to 185°F (-40° to 85°C)
Width	3.59 inches (91mm)
Height Meter Manometer	1.74 inches (91mm) 3.50 (89mm)

Electrical data

Power Domestic	24 VDC (115 VAC 60 Hz 12 watt adapter provided w/-1 models)
Power cord length	6 feet (approx.)

Analog output

Transducers	Same as transducer output voltage
Transmitters	No analog output; the DATUM 2000™ terminates the current loop

Depth (incl. connector)

	7 inches (178 mm) (Allow at least 1/2" more for wires attached to terminal strip)
--	--

Accuracy (readout only)

At 73°F (23°C)	±0.01%R ± 1 digit
At 60°F to 95°F (16° to 35°C)	±0.04%R ± 1 digit

Transducer specifications

	w/Models 204/204D	w/Model 239	w/Model 270
Type of pressure measurement	Gage Absolute Vacuum Differential	Differential Gage	Gage Absolute Barometric
Standard ranges	0 to 25, 50, 100, 250, 500, 1000 psig 0 to 25, 50, 100, 250, 500, 1000 psia 0 to 25, 50, 100 psid 0 to 14.7 psiv 0 to ±10, ±25, ±50, ±100 psid	0 to 0.5, 1.0, 2.5, 5, 15, 30 inch WC 0 to ±0.25, ±.5, ±1.0, ±2.5, ±7.5, ±15 inch WC 0 to 5, 10 psid 0 to ±2.5, ±5 psid	0 to 5, 10, 20, 50, 100 psig 0 to 10, 20, 50, 100 psia 600-1100 millibar 800-1100 millibar
System accuracy (RSS)	±0.11% FS ±2 digits	±0.14% FS ±2 digits	±0.05% FS ± 2 digits
Thermal effects %FS 60°-95°F			
Thermal zero shift	0.14 max. ±4 digits	0.35 max. ±4 digits	0.07 max. ±4 digits
Thermal span shift	0.11 max. ±4 digits	0.35 max. ±4 digits	0.04 max. ±4 digits
Pressure fittings			
Positive	1/4"-18 NPT internal	1/8"-27 NPT internal	1/8"-27 NPT internal
Reference	1/8"-27 NPT internal (204D only)	1/8"-27 NPT internal	N/A
Pressure media			
Positive	Gas or liquid compatible with 17-4 PH stainless steel.	Gases compatible with stainless steel, hard anodized 6061 aluminum, Buna N O-ring. (Stainless steel in place of aluminum on special order.)	Dry or wet air, water or other media compatible with aluminum, alumina ceramics, gold and elastomer sealant.
Reference	Clean dry air or other gases. (Non-corrosive, non-condensable.) Maximum line pressure 1000 psig (204D only)	Clean dry air or other gases. (Non-corrosive, non-condensable.) N/A Maximum line pressure 250 psig	N/A
Analog output	Normally 0 to 5 VDC for unidirectional pressure ranges. 0 to ±2.5 VDC for bidirectional ranges.	Normally 0 to 5 VDC for unidirectional pressure. 0 to ±2.5 VDC for bidirectional ranges.	0 to 5 VDC for gage and absolute ranges.

Ordering instructions

DATUM 2000™ meter only

Order as DATUM 2000-1 meter for 115 VAC converter

DATUM 2001 meter with one transducer or transmitter setup

To order factory setup with one transducer or transmitter and 10ft. cable/connector assembly, specify option 2001-1 for 115 VAC converter. Transducer or transmitter separately not included 1/meter, order separately.

DATUM 2001 meter with two transducers or transmitters setup

For two factory setups and cable assemblies with two transducers or transmitters specify option 2002-1 for 115 VAC. Transducer or transmitter not included w/meter, order separately.

DATUM manometer with transducer installed

To order a manometer with a Model 204 pressure transducer, order part #2204; with a Model 239, order part #2239; with a Model 270 order part #2270, specify pressure ranges.

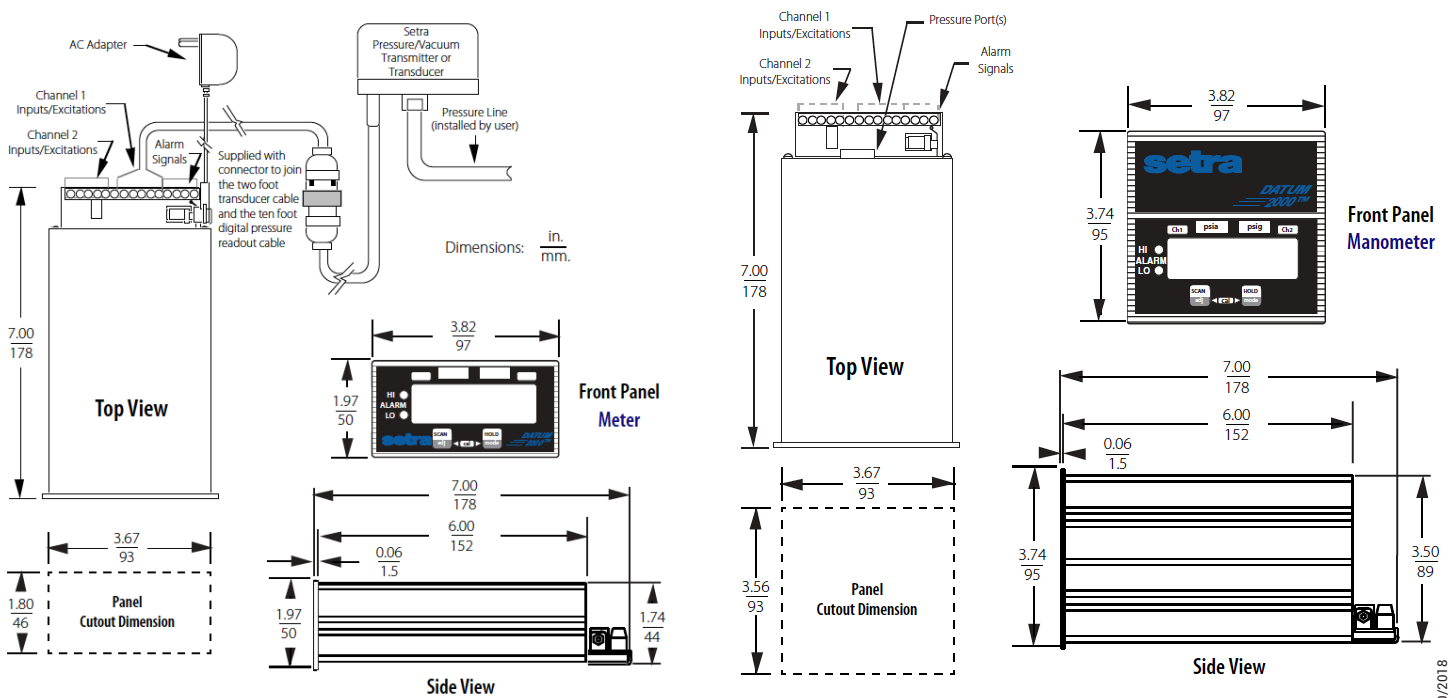
Input specifications

602	1-5 VDC output (2204, 2239 only)
603	1-6 VDC output (2204, 2239)
607	0-5 VDC output (2239 bidirectional only)
811-825	11-25 ft. of cable*

*Consult factory for lengths above 25ft. of cable

Specifications subject to change without notice

Dimensions





Setra Systems, Inc.
159 Swanson Road
Boxborough, MA 01719
800.257.3872
www.setra.com

© Setra Systems, Inc. All rights reserved.

The Setra Systems name and logo
are trademarks of Setra Systems, Inc.