

VOLTS/mADC INPUT DIGITAL PANEL METER METER RELAY

3½ Digits LCD or LED

**MODEL
6000**

D.C. VOLTS/AMPS

Features:

- Low Power (400µA at 5VDC for LCD)
- 50mV=1000 Counts for DC Current Shunts
- .5" High LCD or .6" High LED Display
- Built-in Alarm Relay
- 1000 Meg. Input Impedance
- Auto Zero - Auto Polarity
- Single Ended/Differential



SNAPRING



SANITARY



EXPLOSION PROOF



NEMA 4X

DESCRIPTION: Otek's Series 6000 brings you another industry's first, a miniature Digital Panel Meter with the largest display to board size ratio.

CONNECTIONS: Simple and secure connections with our screw terminal connector.

POWER: The LCD version only requires about 400µA at 5VDC±1V (plus backlight if ordered). The LED version requires more power (about 160mA at 5VDC±1V) but can also be driven from higher voltages. 5VDC is standard, 7-15VDC & 90-265VAC, 50/60Hz optional.

RANGES: The Series 6000 has provisions for internal attenuating resistors for VDC. You can use the standard 200mV range and change it to your various needs (contact OTEK).

ADJUSTMENTS: Only one. Full scale with wide adjustment accessible by removing the filter. The Pot. is on the right.

ALARM RELAY (positive signals only): An S.P.D.T Relay & LED will turn on when the signal exceeds the limit set. To set the limit simply apply the signal to desired value on the display and adjust the pot on the rear until the LED turns on. Contact's rating: 100mA at 28VDC/120VAC maximum load resistive.

NOTE: ALARM NOT AVAILABLE WITH 2V, 20V, & 200V RANGES.

HOUSING: All 6000 series available in a "Snap Ring" case (U.L. approved ABS Polycarbonate 94VO rated), "Explosion Proof" case that meets Class I, Div. 1 & 2 Groups B, C, D; Class II Div. 1 & 2 Groups E, F, G; Class III, NEMA 3, 4, 7, 9 & 12; FM, CSA, Cenelec and Baseefa! And our new Sanitary Case is wall, pipe or panel mount and can have up to 3 meters installed, please specify.

BACKLIGHT: (LCD models only) When ordered, requires 20mA maximum at 5VDC (same as the power input). The segments are black over an illuminated background.

SPECIFICATIONS AT 25°C

Accuracy and Linearity	±.05% ±1 Digit
Maximum Input, Any Voltage Range	1000VDC
Maximum Input, Any Current Range	200%
Drift vs. Temperature	±.005%/°C
Samples/Second	4 Nominal
Input Bias Current	5pA
Input Impedance	1000 Meg. Nominal
Common Mode Voltage	2 Volts (Diff-Type)
Operating/Storage Temp	-10° to +60°C/-20° to +70°C
Decimal Points	Selectable
Power Requirements LCD Version	400µA at 5VDC
Power Requirements LED Version	160mA at 5VDC
Power Requirements Backlight	20mA at 5VDC
Display Type LED Version	0.6" High Red
Display Type LCD Version	0.5" High Reflective
LCD MTBF	80,000 Hours
LED MTBF	100,000 Hours
Sanitary Case	NEMA 4X up to 250°F Steam Cleaning

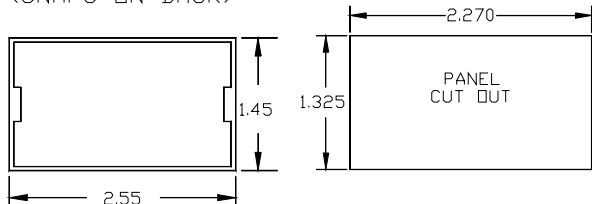
NOTE: Transmissive LCD is used when backlight option is ordered (black digits over illuminated background).

ORDERING INFORMATION (8/2/05)

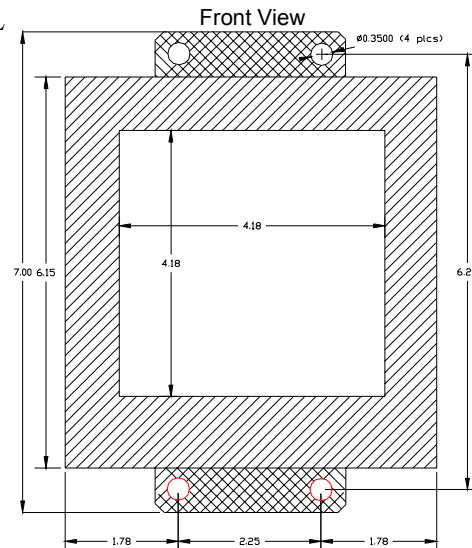
MODEL <input type="checkbox"/> 0 <input type="checkbox"/> 0 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
DISPLAY TYPE	ALARM
0 L.E.D.	2 No Alarm
1 L.C.D.	3 Alarm
INPUT RANGE(1)	HOUSING
0 200mV/1KMQ	0 Snap Ring
1 2V/10KMQ	3 Explosion Proof
2 20V/10MQ	4 Sanitary Case
3 200V/10MQ	5 NEMA 4X
5 200µA/1KMQ	POWER INPUT (2)
6 2mA/100Ω	0 5VDC
7 20mA/10Ω	1 90-265VAC, 50/60Hz
8 200mA/1Ω	3 7-15VDC
\$ 50mV/1KMQ	BACKLIGHT (LCD only)
(1) 50mV=1000 counts	0 No Backlight
(2) See mechanical info. on back page.	1 Red Backlight
	2 Green Backlight

SERIES 6000 MECHANICAL

SNAP ON RING
(SNAPS ON BACK)



SPAN adj. is behind
the filter on the right



TERMINAL

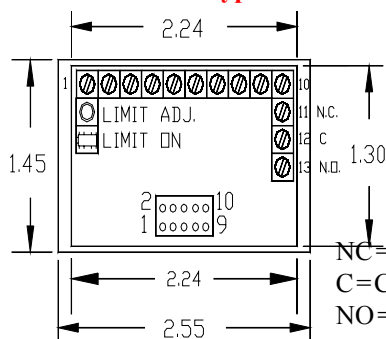
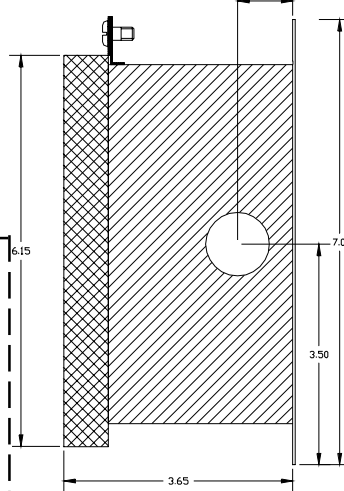
DESCRIPTION

- | | |
|----|--|
| 1 | 1XX.X Decimal Point. |
| 2 | + Signal Hi in |
| 4 | 5 or 7-15VDC Power Input Or AC High* |
| 5 | - Signal Low in |
| 6 | DC Power Ground Or AC Neutral* See Typical Connections |
| 7 | See Typical Connections. |
| 8 | 1X.XX Decimal Point. |
| 9 | See Typical Connections |
| 10 | 1.XXX Decimal Point. |

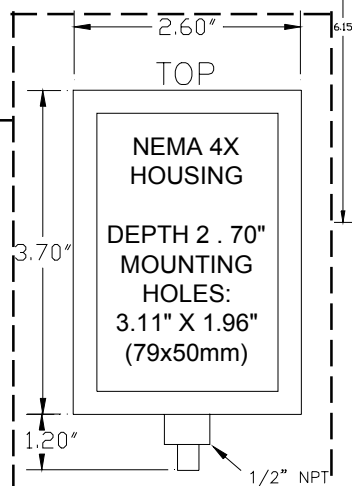
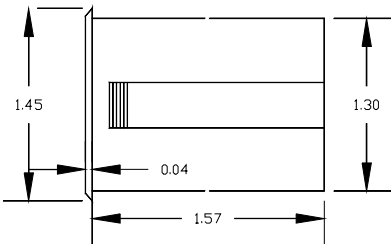
*** MAKE SURE OF THE MODEL # AND POWER INPUT BEFORE CONNECTION
"DANGER"!! See Typical Connections.**

SANITARY HOUSING

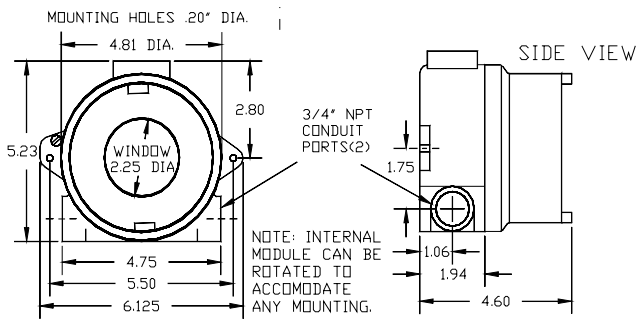
Side View



NC = Normally Closed
C = Common
NO = Normally Open



EXPLOSION PROOF

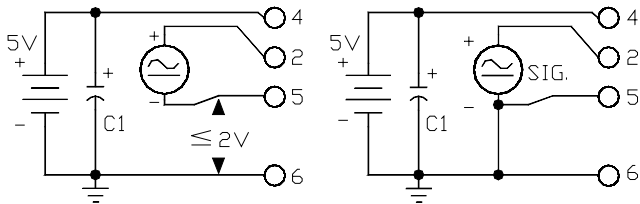


VDC POWER (Options 0 or 3)

6000 TYPICAL CONNECTIONS

(1) DIFFERENTIAL
FIG. 600-1

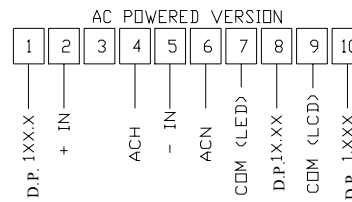
(2) SINGLE ENDED
FIG. 600-2



ADD EXTERNAL C1 100uF/10V

VDC POWER VER-
SION (Options 0 or 3)
Connect desired D.P. to
Pin 7 for **LCD** or to
Pin 6 for **LED** Models.

(AC POWER) (Option 1)



CONNECT DESIRED D.P. TO TERMINAL #7 (LED) OR 9 (LCD)

F#87MC6000.DWG

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