

# VOLTS & mA INPUT TRUE RMS METER RELAY

## DC-50KHz Frequency Response

### 3½ Digits LCD or LED

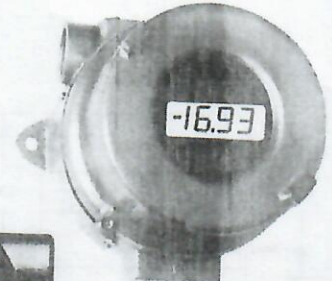
**MODEL**  
**6080**

**Features:**

- Measures Ripple
- Low Power Consumption (1mA at 5VDC) LCD Version
- 50mV=1000 Counts for Current Shunts or C.T.
- 200mVRMS - 200VRMS Ranges
- 200µA - 200mA Ranges
- Built-in Alarm Relay
- 1000 Meg. Input Impedance
- .5" LCD or .6" LED



SNAP RING



EXPLOSION PROOF



CONDUIT

**SPECIFICATIONS AT 25°C**

Accuracy and Linearity .....	±0.5% of F.S. (DC-20KHz)
	±1.0% of F.S. (20-50KHz)
Drift vs. Temperature .....	±.005%/°C
Samples/Second .....	4 Nominal
Input Bias Current .....	5µA
Input Impedance .....	1000 Meg. Nominal
Operating/Storage Temp .....	-10° to +60°C/-20° to +70°C
Decimal Points .....	Selectable
Power Requirements LCD Type .....	1mA at 5VDC
Power Requirements LED Type .....	160mA at 5VDC
Power Requirements Backlight .....	20mA at 5VDC
Display Type LED .....	0.6" High Red
Display Type LCD .....	0.5" High Reflective
LCD MTBF .....	80,000 Hours
LED MTBF .....	100,000 Hours

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

Input Type .....	Single Ended
Frequency Response .....	DC-20KHz; 20-50KHz Derated
Step Response .....	1 second 0-F.S.
Input Protection .....	200% of Range (50V max.)
Input Type .....	Single Ended

**WARNING: NO ISOLATION**

**DESCRIPTION:** Now you can measure DC, sine, triangular or SCR's signals at low cost and high accuracy. Available with bright 0.6" LED or 0.5" high contrast LCD display. When measuring AC ripple over DC line simply add an external capacitor in series with the + input, it will only measure the AC value ridding on the DC line.

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

**POWER:** The LCD model (6081) requires only about 1mA at 5VDC and the LED version (6080) requires about 160mA at 5VDC. 120 & 240VAC are externally powered.

**BACKLIGHT:** (LCD only) When ordered, it is powered from the same 5VDC power and requires only 20mA to fully illuminate the background, (segments remain black).

**HOUSING:** All 6000 series available in "Snap Ring" case (U.L. approved ABS Polycarbonate 94VO rated), "Conduit" for those harsh environments or "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!

**ALARM RELAY** A 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/120VDC maximum resistive load.

**TRUE RMS AC**

**ORDERING INFORMATION (1/1/97)**

MODEL <b>6</b> <b>0</b> <b>8</b> [ ] [ ] [ ] [ ] [ ] [ ]	
DISPLAY TYPE	ALARM
0 ..... L.E.D.	2 ..... No Alarm
1 ..... L.C.D.	3 ..... Alarm
INPUT RANGE /Z IN(1)	HOUSING
0 ..... 200mV/1KMΩ	0 ..... Snap Ring
1 ..... 2V/10KMΩ	2 ..... Conduit
2 ..... 20V/10MΩ	3 ..... Explosion Proof
3 ..... 200V/10MΩ	
4 ..... 500V/10MΩ	POWER INPUT (2)
5 ..... 200µA/1KΩ	0 ..... 5VDC
6 ..... 2mA/100Ω	1 ..... Open Frame 120/240VAC
7 ..... 20mA/10Ω	2 ..... Power Pack 120VAC
8 ..... 200mA/1Ω	3 ..... 7-15VDC
9 ..... 2Amp/0.1Ω	BACKLIGHT (LCD only)
\$ ..... 50mV/1KMΩ	0 ..... No Backlight
	1 ..... Red Backlight
	2 ..... Green Backlight

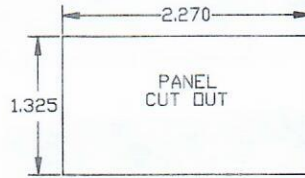
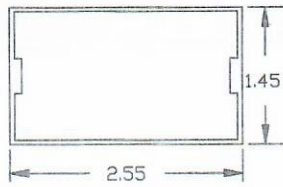
(1) 50mV=1000 counts  
(2) See mechanical

TERMINAL	DESCRIPTION
1	1XX.X Decimal Point. On LED version connect to terminal 6. On LCD version connect to terminal 7.
2	+ Analog Output
3	AC high
4	+ 5VDC Power Input
5	AC low, - Analog Output & Ground
6	Ground (+5V return)
7	Decimal Point Common (LCD Only). Connect desired D.P. to this terminal
8	1X.XX Decimal Point. On LED version connect to terminal 6. On LCD version connect to terminal 7.
10	1.XXX Decimal Point. On LED version connect to terminal 6. On LCD version connect to terminal 7.

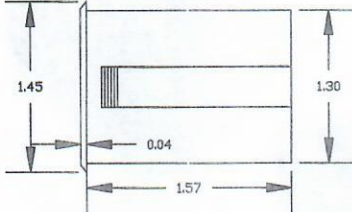
**NOTE: Connect a 100µF/10V Electrolytic or greater between 4(+) and 6(-) as close to the meter as possible.**

**SERIES 6080 MECHANICAL & TYPICAL CONNECTIONS**

SNAP ON RING  
(SNAPS ON BACK)

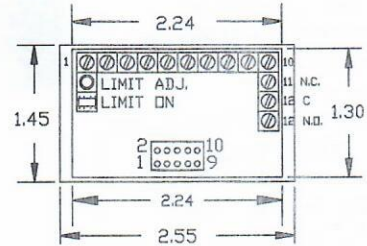


SIDE VIEW  
ALL MODELS



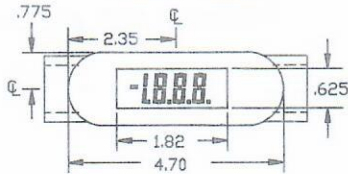
ZERO & SPAN ADJUSTMENT  
BEHIND FILTER  
1. ZERO ON THE LEFT  
2. SPAN ON THE RIGHT

REAR VIEW  
MODEL 6080

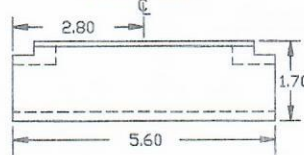


**CONDUIT ENCLOSURE**

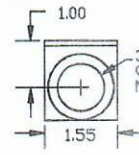
FRONT VIEW



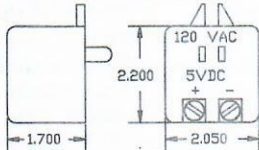
SIDE VIEW



END VIEW

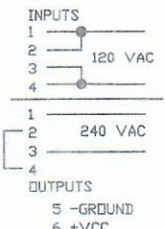


POWER PACK STYLE



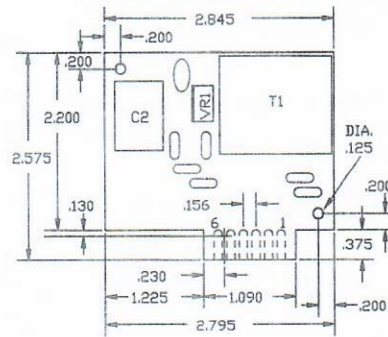
ORDER P/N 75-3110 FOR 5VDC

OPEN FRAME  
POWER SUPPLY  
TYPICAL CONNECTIONS

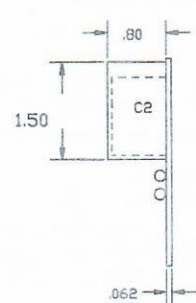


ORDER  
P/N 81-3110,  
5VDC OUT

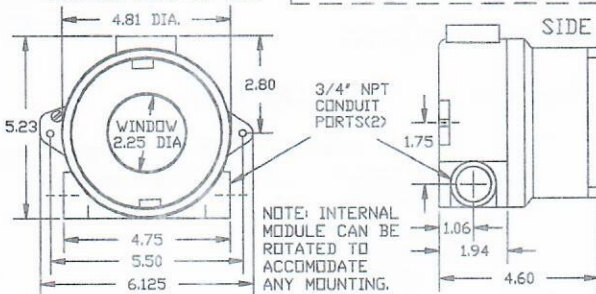
OPEN FRAME STYLE  
P/N 81-3110



SIDE VIEW

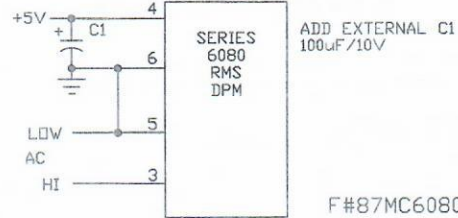


**EXPLOSION PROOF**  
MOUNTING HOLES .20" DIA.



NOTE: INTERNAL  
MODULE CAN BE  
ROTATED TO  
ACCOMMODATE  
ANY MOUNTING.

TYPICAL CONNECTIONS



F#87MC6080.DWG

FAX: 520-790-2808  
E-MAIL: otekcorp@primenet.com  
Fax-Back#: 520-748-1539--6080  
**520-748-7900**

**OTTEK**™  
CORP.  
SINCE 1974

4016 E. TENNESSEE ST.  
TUCSON, AZ. 85714 U.S.A.  
MADE  
IN  
USA