

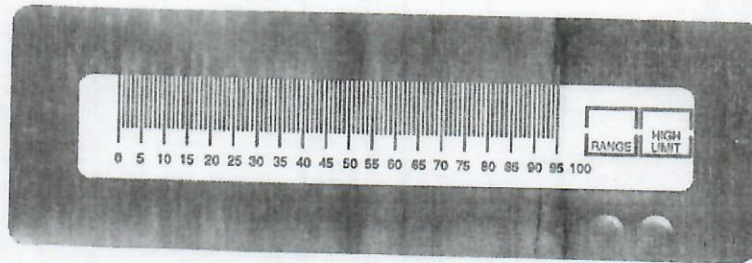
A.C. WATTS POWERLESS EDGEWISE BARGRAPH METER

MODEL
578

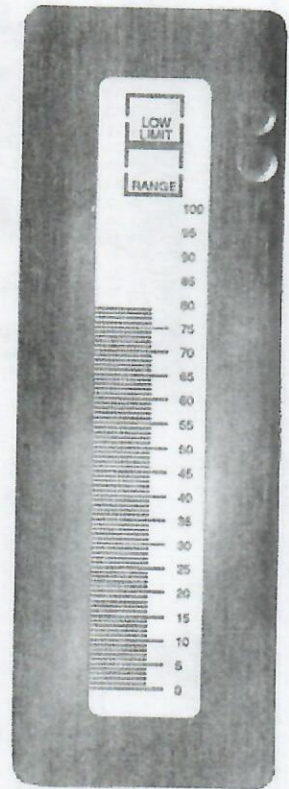
U.S. Patent No.
4,908,569

Features

- Accepts Std. 5A C.T.
- 90-500VAC Range
- RMS Calibrated
- 101 Segments
- Vertical or Horizontal Mount
- Hi & Lo Annunciators
- Over & Under-range Annunciators
- NEMA 3 Standard NEMA 4 (on request)
- Optional Backlight
- Less than 1" Deep



HORIZONTAL



VERTICAL

TRUE RMS AC

DESCRIPTION: Model 578 has an internal amplifier and a true RMS to D.C. multiplier to display the V x I product. The V input accepts a variety of voltage ranges, (see ordering information). The I input is designed to accept a 500mVAC signal from an A.C. current shunt or current transformer. When using C.T.s of 5amp F.S. typical output, connect the included 0.1 ohm, 2 watt, 0.1% resistor across the C.T.'s output to develop a 500mV (at 5amp) signal, (see typical connections and C.T. section).

NOTES:

1. All A.C. watts powerless have an internal amplifier to convert the 500mV full scale signal to a 1 Volt. Always use C.T. (or A.C. shunt) that will give you 500mVAC at 10, 100, 1000, etc. Amps (normally known as 10:5; 100:5; 1000:5, etc., current ratio), or specify your C.T. ratio (600:5, 300:5, etc.).

2. When using current shunts or resistors avoid any lead resistance at the shunt that will affect the total resistance of it. Always use shunts with 4 terminals (2 for power & 2 for signal).

ANNUNCIATORS: Hi & lo adjustable included, in addition to over & under-range. The "Hi Limit" annunciator will turn on when its setting is exceeded. The same holds true for "Low Limit" annunciator except that it will illuminate when the signal is less than its setting. The "Out of Range" annunciator will turn on whenever the signal is greater than F.S. (100%) or less than zero (negative).

CONNECTORS: A flat ribbon 26 pin connector is standard and it's included with the meter. An optional screw terminal connector is available, (see ordering information).

BACKLIGHT: Standard display is reflective black segments over silver background. An optional backlight is available at the time of ordering. When ordered, the segments are black over an illuminated background. **Screw terminal connector must be ordered.** The intensity is not adjustable and it's powered by the signal (line), (see Typical Connections).

LIGHT SOURCE: Electroluminescent and it is powered by the signal requiring only 2mA at 120-500VAC. The E.L. has uniform light output and its life expectancy is in excess of 15,000 hours.

SCALES: Customer to specify volts and amps at 100% of scale. Standard marking is 0-100%. A custom overlay can be made to your specifications for the bargraph, (contact Otek).

SPECIFICATIONS AT 25°C

Accuracy and Linearity	±1% of full scale
Maximum Input Signal (volts)	High range
Maximum Input Signal (current)	2VRMS (across R shunt)
Maximum Power Consumption	1 watt
Nominal Power Consumption	0.5 watts
Measuring Method (VxI)	RMS calibrated
Span Adjustment Range	±30% of full scale
Zero Adjustment Range	±10% of zero
Backlight Operating Range (for DC-AC)	60-200V and 200-500V; 50-400Hz
Operating Frequency Range	50-60Hz (others on request)
Typical Calibration	≈ 100V x 500mV (5ACT) = 100%
Temperature Coefficient	100PPM/°C
Operating/Storage Temperature	-10° to +60°C/-20° to +70°C
MTBF	80,000 Hours
Display	101 Segment Reflective LCD

CASE MATERIAL: U.L. approved ABS Polycarbonate 94VO rated. Black matte with acrylic antiglare treated window.

ENVIRONMENTAL: NEMA 3 standard. NEMA 4 on request; gasket included and adjustment plugs sealed (not field scaleable).

ORDERING INFORMATION (1/1/97)

MODEL	5	7	8					
OPERATING VOLTAGE RANGE (1)								
00	90-150VAC							
01	130-200VAC							
02	200-300VAC							
03	300-400VAC							
04	400-500VAC							
CONNECTOR								
0	Flat Ribbon							
1	Screw Terminal							
BACKLIGHT(2), CASE MTG.								
0	No Bklt, Vertical							
1	Backlight, Vertical							
4	No Bklt, Horizontal							
5	Backlight, Horizontal							

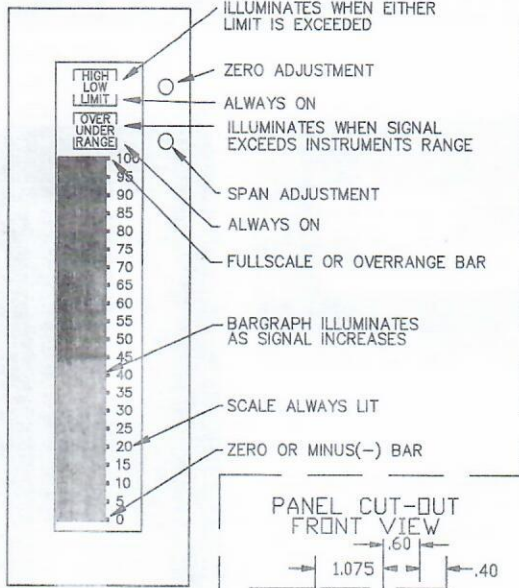
NEMA 4 HOUSING ON REQUEST
Contact Otek

- (1) For volts input. Current input is 500mV F.S., see specs
(2) Uses the A.C. line to power the backlight and screw terminal connector must be ordered.

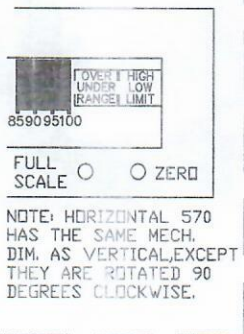
578 MECHANICALS & TYPICAL CONNECTIONS

DESCRIPTION

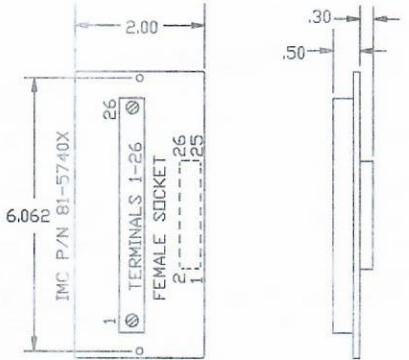
VERTICAL



HORIZONTAL



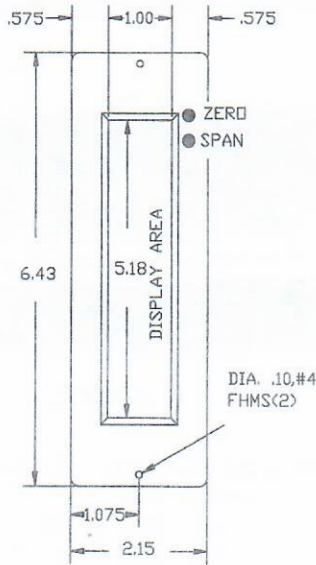
OPTIONAL SCREW TERMINAL CONNECTOR



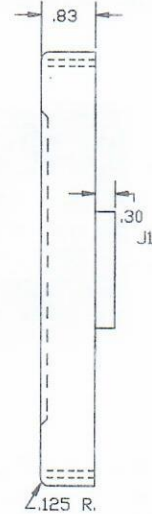
NOTE: mm = INCH X 25.4

MECHANICALS

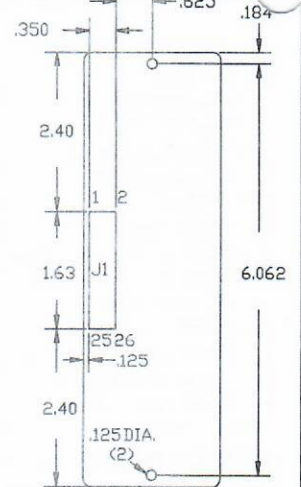
FRONT VIEW



SIDE VIEW



REAR VIEW



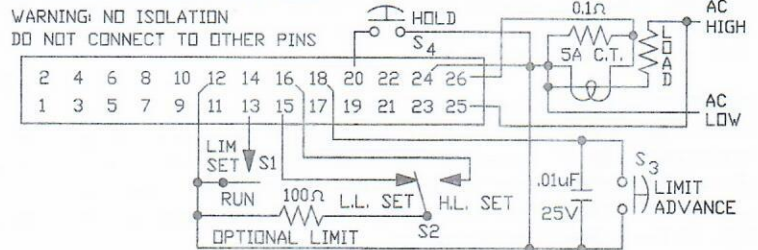
CONNECTOR REAR VIEW



MOD. 578 AC WATTS POWERLESS TYPICAL CONNECTIONS

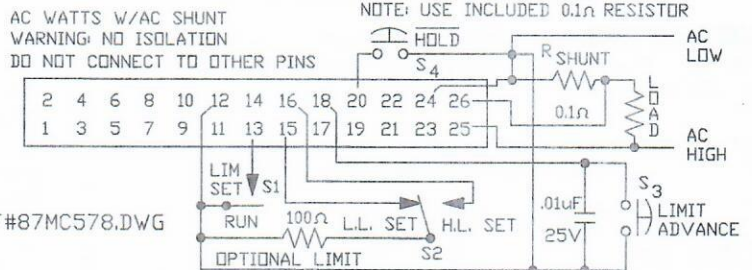
AC WATTS W/CURRENT XFR. (C.T.)

WARNING: NO ISOLATION
DO NOT CONNECT TO OTHER PINS



AC WATTS W/AC SHUNT

WARNING: NO ISOLATION
DO NOT CONNECT TO OTHER PINS



F#87MC578.DWG

NOTES: (1) DO NOT CONNECT PINS NOT SHOWN CONNECTED. (2) S1 & S2 CAN BE COMBINED INTO ONE SWITCH HAVING CENTER OFF DPDT (ON-NONE-ON). (3) AVOID ADDITIONAL RESISTANCE AT THE SHUNT.

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