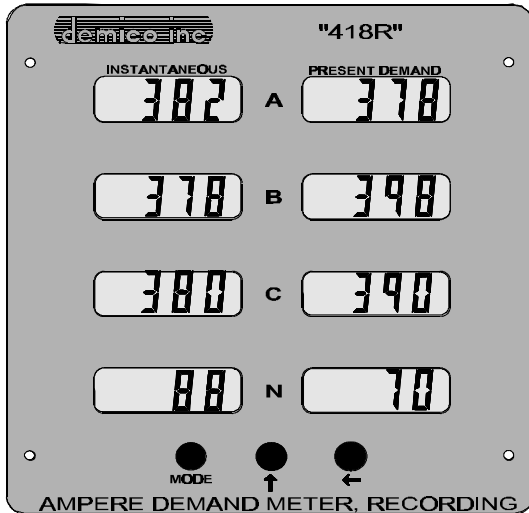


AMPERE DEMAND METER



- ◆ FRONT PANEL OPERATION
- ◆ MANUAL OR AUTOMATIC RESET
- ◆ EVENTS TIME-STAMPED TO 1 SEC.
- ◆ STORES 13 MONTHS DATA
- ◆ STORES PEAKS AND COINCIDENT PEAKS
- ◆ CLOCK RUNS THROUGH OUTAGES
- ◆ POWER = 120 - 240 Vac OR 100 - 300 Vdc
- ◆ 200mA, 5A, and 10A INPUT AVAILABLE
- ◆ ACCURATE, STABLE, TRUE RMS
- ◆ FREE FAST INTERFACE PROGRAM

The four phase AD418R is designed to emulate the "Lincoln" thermal Ammeter that has been used since about 1919. The digital logarithmic averaging produces the same thermal response as the original meter, but with vast improvements in accuracy, stability, and features. It can be set up and operated from the front panel or with a computer. The AD418R can automatically collect and store monthly Demand data for all three phases plus the neutral in a transmission or distribution line to help a Utility to operate its system in an efficient manner. It is ideal for monitoring substation Transformers and maximizing Transmission line capacity. High loads or Peak Demand periods can be anticipated before they occur and verified accurately afterwards with the internal real time clock's one second resolution time-stamping. Instantaneous and Demand individual phase peaks and coincident peaks are recorded. Coincident Peaks are selected by computing the sum of the present Demand values. For three phase transformers, the peak Coincident Demand value gives the true thermal peak of the

transformer.

Seconds above a high setpoint are counted and can be used to evaluate the times of heavy load Demands in a distribution system. Setpoints are user selected. Monthly data is stored in the meter at the end of each month and retained for thirteen months before being overwritten. The previous month's data can be compared to the same month the year before as recorded in the meter. The meter can be reset manually from the front panel, or consistent monthly data will be recorded using the automatic reset feature. Present Peak Demands and Coincident Peak Demands can be read from the front panel. A free, powerful MS-DOSE computer interface program allows easy setup and data retrieval.

The meter is housed in a rugged molded phenolic case with brushed stainless steel front panel. The state of the art electronics are temperature stable over a wide temperature range and computerized calibration gives high accuracy true rms readings. The 90 to 290 Vac or 100 to 300 Vdc input range allows the same meter to be powered from 120 or

Front Panel Features

The front panel of the meter has eight 4 digit x 1/2" liquid crystal displays for good visibility in high ambient light. Three flush mounted pushbuttons are used to manually control the display and reset the meter.

The setup parameters that can be changed from the front panel are:

1. The integration time constant
2. Scale (C.T. Ratio)
3. The meter address number
4. The date and time of day

A front panel security feature, when used, makes parameters tamper resistant.

The data available from the front panel is:

1. Average Amperage (Demand) (default)
2. Instantaneous Amperage (1 second reading) (default reading)
3. Peak Demand of each phase
4. Peak Demand of each phase before last reset
5. Coincident Peak Demand of summed phases
6. **Coincident Peak Demand of summed phases before last reset**

Computer Interface Features

The computer setup and operation requires a special Demico cable, P/N C9-J which has a metal stereo 1/4" Jack on one end and a 9 Pin Sub-D Connector on the other end, and the Demico MSDOS E interface program. The **free** software allows easy setup and retrieval of all the data available from the front panel plus:

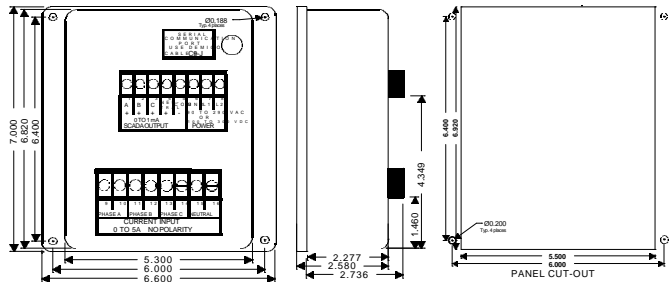
1. Thirteen months of time-stamped Peak Demand values of each Phase and the Coincident Peak Demand values
2. Seconds per Phase the Demand was above the user selected high setpoint
3. Choice of either Front Panel or Automatic Reset. The automatic reset feature, when used, will maintain an accurate, consistent record of Demand data.

The 13 months of data can be retrieved from the meter, saved to disk and imported into spreadsheets for reports, graphs and further evaluation.

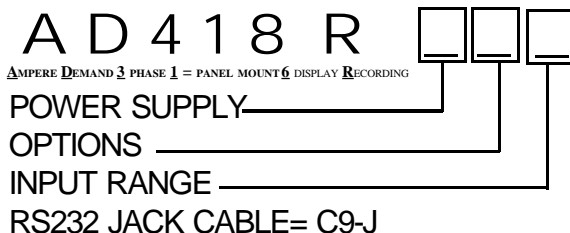
SPECIFICATIONS

POWER SUPPLY	90-290Vac & 100-300Vdc
SURGE WITHSTAND	ANSI C37.90R
DISPLAY	EIGHT 4 DIGIT 1/2" LCD
TEMPERATURE	-30 TO 70° C
ACCURACY	± 0.5 % OVER TEMP.
CLOCK ACCURACY	± 1 MIN PER MONTH
CALIBRATION	NOT REQUIRED
TIME CONSTANT	10 TO 9999 SECONDS
ENCLOSURE	MOLDED PHENOLIC WITH STAINLESS STEEL FACEPLATE
COMMUNICATIONS	RS232C
BAUD RATE	1200,2400,9600,19200 (software selectable)
MAX. INPUT RANGE	150 % OF SCALE

DIMENSIONS



ORDERING INFORMATION



POWER SUPPLY	OPTIONS	INPUT RANGE
1 = 12V AC/DC	1 = NONE	1 = 0 - 5A
2 = 24V AC/DC		2 = 0 - 10A
3 = 48V AC/DC		3 = 0 - 200mA
9 = 120/240V AC, 125/250VDC		