DC INSTRUMENT, 3 ½ DIGITS, ALLOWS THE READING TO BE DISPLAYED IN ENGINEERING UNITS FOR ANY DC VOLTAGE INPUT LOWER THAN 2 Vdc.

**SPECIFICATIONS**

- **DISPLAYS**: 3 ½ digits, 7 segment, red LED
- **HEIGHT**: 0.56" (14.2 mm.)
- **SYMBOLS**: ± 1.8 x 8.8
- **DECIMAL POINTS**: Selectable by jumpers
- **OVERRANGE INDICATION**: Display flashes 1999
- **INPUT CONFIGURATION**: Bipolar single
- **ZERO**: Automatic
- **SPAN ADJUSTMENT**: ± 5%
- **CONVERTER**: Dual-slope, average value
- **INTEGRATION PERIOD**: 80 ms.
- **READ RATE**: 3.12 / sec.
- **RANGES**: See table selection
- **NOISE REJECTION NMR**: 50 dB. 50/60 Hz.
- **ACCURACY**: 0.15 % ± 1 count
- **SPAN TEMPCO**: 100 ppm.
- **ZERO TEMPCO**: 2.5 µV/°C.
- **OPERATING TEMPERATURE**: 0 to 50 °C (32 to 122 °F)
- **STORAGE TEMPERATURE**: -40 to 80 °C (-40 to 176 °F)
- **WEIGHT**: 310 gr. (0.68 lb)
- **CASE MATERIAL**: ABS, DIN 43700, black color
- **STANDARD POWER**: 115 Vac. ± 10 %, 50/60 Hz.
- **POWER CONSUMPTION**: 5.5 VA for AC.
- **ELECTRICAL CONNECTIONS**: Push-in cable connectors
- **BURN-IN**: 24 h.

**FIG. 1**

**FRONT VIEW**

- **SPAN**: Adjust the maximum reading.
- **OFFSET**: Not in service
- **SPAN ADJUSTMENT**: Accessible behind the lower door.

**FIG. 2**

**REAR VIEW**

- Isolated digital output (option)
- Analog output (option)
- Signal input
- Analog output
- Power supply

**FIG. 3**

**SIGNAL CONDITIONER**

- This signal conditioner accepts the signal input in DC voltage, and allows the reading to be displayed in engineering units. If the actual reading is not appropriate for your requirements, use the following system to calculate the value of the resistor R4.

**EXAMPLE**: Display 124.8 when signal input is 460 mVdc (decimals must not be considered)

- **SIGNAL INPUT IN MILLIVOLTS**
  - **R4 VALUE IN OHMS**
  - **R4 = (1248 x 10.000) / 460 = 17.130 Ω**

Install R4 on the signal conditioner board, plug-in jumper in position "D1" (Fig. 5), on the decimal point selector and adjust span potentiometer placed on the front panel until the display reads 124.8
OPTIONS AND POWER SUPPLIES AVAILABLE FOR DP18 Series

CONTROL OUTPUT/COMMUNICATION OPTIONS

Select a maximum of one option from each column

<table>
<thead>
<tr>
<th>OPTION</th>
<th>DESCRIPTION</th>
<th>OPTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCD</td>
<td>PARALLEL BCD, OPTOISOLATED</td>
<td>A01</td>
<td>ANALOG OUTPUT, mA SINK</td>
</tr>
<tr>
<td>R1</td>
<td>DUAL SETPOINT, 3 Amp, Relays</td>
<td>A02</td>
<td>ANALOG OUTPUT, NA SOURCE</td>
</tr>
<tr>
<td>R2</td>
<td>ISOLATED SERIAL OUTPUT RS-232</td>
<td>A03</td>
<td>ANALOG OUTPUT, VOLTAGE</td>
</tr>
<tr>
<td>AP1</td>
<td></td>
<td>A04</td>
<td>ANALOG PEAK HOLD</td>
</tr>
</tbody>
</table>

POWER SUPPLY OPTIONS

<table>
<thead>
<tr>
<th>OPTION</th>
<th>POWER</th>
<th>OPTION</th>
<th>POWER</th>
<th>OPTION</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>230 Vac 50/60 Hz</td>
<td>24</td>
<td>24 Vac 50/60 Hz</td>
<td>48</td>
<td>48 Vac 50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>150/30 Vac 50/60 Hz</td>
<td></td>
<td>24/65 Vac 50/60 Hz</td>
<td></td>
<td>15...30 Vac...10% (3.5 W) isolated</td>
</tr>
</tbody>
</table>

SELECTION OF: DECIMAL POINTS AND SPECIAL OPTIONS

JUMPERS SELECTION FOR SPECIAL OPTIONS

A1: OPEN ONLY WHEN ALARM SETPOINT CARD OPTION IS ADDED
A2: OPEN TO ELIMINATE THE LEAST-SIGNIFICANT DIGIT (LSD)
A3: OPEN TO ELIMINATE THE INDICATION

MECHANICAL DIMENSIONS mm (in)

<table>
<thead>
<tr>
<th>CONNECTOR FOR ANALOG OUTPUT (OPTIONAL)</th>
<th>POWER SUPPLY CONNECTOR</th>
<th>MOTHER BOARD COMPONENTS SIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>D3 = 1.XXX</td>
<td>D2 = 1.XXX</td>
<td>D1 = 1.XXX</td>
</tr>
</tbody>
</table>

DECIMAL POINT SELECTOR

<table>
<thead>
<tr>
<th>RETURN REQUESTS/INQUIRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct all warranty and repair requests/inquiries to the OMEGA ENGINEERING Customer Service Department BEFORE RETURNING ANY PRODUCTS TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN AR NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS).</td>
</tr>
<tr>
<td>FOR NON-WARRANTY REPAIRS, consult OMEGA for current repair charges. Have the</td>
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