1/8 DIN DC Voltmeter & Ammeter

AP-502A

Features

★ Low cost.
★ Bright LED height 14.2mm (Red).
★ Serial data output.
★ Thin case (Depth 32mm).
★ 5Vdc (Isolated).
★ 200mV to 200V, 200µA to 2A measurement.

Ordering code

AP - 502A -

<table>
<thead>
<tr>
<th>Code</th>
<th>Input range</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 to 14</td>
<td>DC voltage (11 to 14 range)</td>
</tr>
<tr>
<td>21 to 25</td>
<td>DC current (21 to 25 range)</td>
</tr>
</tbody>
</table>

Input Specifications

DC voltage

<table>
<thead>
<tr>
<th>Model</th>
<th>Measurement range</th>
<th>Resolution</th>
<th>Impedance</th>
<th>Max. allowable input</th>
<th>Accuracy (23±5°C 35 to 85%RH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP-502A-11</td>
<td>±199.9mV</td>
<td>±10mV</td>
<td>100MΩ</td>
<td>±250V</td>
<td>±(0.1% reading +1 digit)</td>
</tr>
<tr>
<td>AP-502A-12</td>
<td>±19.99V</td>
<td>±1mV</td>
<td>100MΩ</td>
<td>±25V</td>
<td></td>
</tr>
<tr>
<td>AP-502A-13</td>
<td>±19.99V</td>
<td>±10mV</td>
<td>10MΩ</td>
<td>±250V</td>
<td></td>
</tr>
<tr>
<td>AP-502A-14</td>
<td>±199.9V</td>
<td>±100mV</td>
<td>10MΩ</td>
<td>±500V</td>
<td></td>
</tr>
</tbody>
</table>

DC current

<table>
<thead>
<tr>
<th>Model</th>
<th>Measurement range</th>
<th>Resolution</th>
<th>Impedance</th>
<th>Max. allowable input</th>
<th>Accuracy (23±5°C 35 to 85%RH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP-502A-21</td>
<td>±19.99μA</td>
<td>±100μA</td>
<td>1Ω</td>
<td>±10mA</td>
<td>±(0.2% reading +1 digit)</td>
</tr>
<tr>
<td>AP-502A-22</td>
<td>±19.99mA</td>
<td>±1mA</td>
<td>100Ω</td>
<td>±30mA</td>
<td></td>
</tr>
<tr>
<td>AP-502A-23</td>
<td>±19.99mA</td>
<td>±10μA</td>
<td>10Ω</td>
<td>±155mA</td>
<td></td>
</tr>
<tr>
<td>AP-502A-24</td>
<td>±19.99mA</td>
<td>±100μA</td>
<td>1Ω</td>
<td>±500mA</td>
<td></td>
</tr>
<tr>
<td>AP-502A-25</td>
<td>±1.999mA</td>
<td>±1mA</td>
<td>0.1Ω</td>
<td>±5A</td>
<td>±(0.3% reading +1 digit)</td>
</tr>
</tbody>
</table>

Specifications

Operating method          Double integral
Input configuration       Single ended
Input bias current        50PA (Typ.)
Sampling rate             2.5 times per second
Rejection                 40dB or more (50/60Hz)
Display range             Max. 1999 (3 1/2 digits)
Over range display        When input exceeds the max. display, 1999 flashes
Display                   Red 7 segment LED (height 14.2mm)
Polarity                  '-' is displayed at negative polarity
External output           Serial data output
Decimal point             Able to set to any digit by terminal between D.P and COM
Operating temperature     0 to 50°C
Operating relative humidity 35 to 85% (non-condensing)
Power supply              5Vdc ±5% 120mA max.
Power consumption         150mA max.
Dimensions                96mm(W) x 48mm(H) x 33mm(D) DIN size
Weight                    Approx. 60g
Dielectric strength       500Vdc per 1 min.  Between input terminal (LO) and power supply terminal (OV)
                         1500Vac per 1 min.  Between input terminal (LO) and mounted plate
Insulation resistance     500Vdc, 100MΩ or more on the above terminals

Dimensions

Front view

Side view

Panel cutout

Panel thickness 0.8 to 3.2mm (Unit : mm)

Terminal Connections

Watanabe Electric Industry Co., Ltd.
http://www.watanabe-electric.co.jp/en/