

### PROTEUS RANGE

#### Panel Meters

- ▶ Designed for the OEM user.
- ▶ DIN standard Dimensions.
- ▶ Slip-in interchangeable scales.
- ▶ Available in 4 sizes. 48mm, 72mm, 96mm, 120mm.
- ▶ Accuracy/Movement options to optimise unit cost.
- ▶ Robust, high quality assembly for maximum integrity and performance.
- ▶ Proven pivot and jewel movement for high reliability.
- ▶ Choices of mounting and presentation.
- ▶ Optional internal illumination.
- ▶ Wide range of scaling, caption and display facilities.

#### *Proteus, the meter to grace your panel design*

A family of 4 meters, each with basic DIN dimensions and 3 choices of aspect to enhance your panel design.

- ▶ DIN Rectangular for front panel screw fixing.
- ▶ 'Landscape' with bezel for snap-on fixing from rear without screws (F).
- ▶ 'Landscape' without bezel for front panel screw fixing (XF).

All units are housed in precision black ABS moulded cases with optically clear, polycarbonate windows, that will add elegance and quality to your product.

With slip-in, interchangeable scales and accuracy class options covering 1%, 1.5% and 2% reflected in the unit pricing, giving maximum flexibility and the highest benefit-cost ratio for your application. Style options include filament lamp illumination, mirror scales, single or multicolour dials, captions, and pointers.

High-quality, high torque movements provide exceptional resistance to vibration and shock and the robust construction

#### *Application Specification:*

Full range of d.c. or a.c. current or volts ranges may be supplied with internal or external coil conditioning.

#### **ACCURACY CLASS:**

Standard: 1.5

#### **STANDARD REFERENCES**

BS89: 1977 and IEC51: 1973

#### **DIALS:**

Available in black, white or special colour.

Mirror scales are an option.

#### **SCALE LENGTHS:** Nominal

P48: 48mm P72: 55mm SCALE ARC 100°  
P96: 70mm P120: 90mm

#### **ILLUMINATION:**

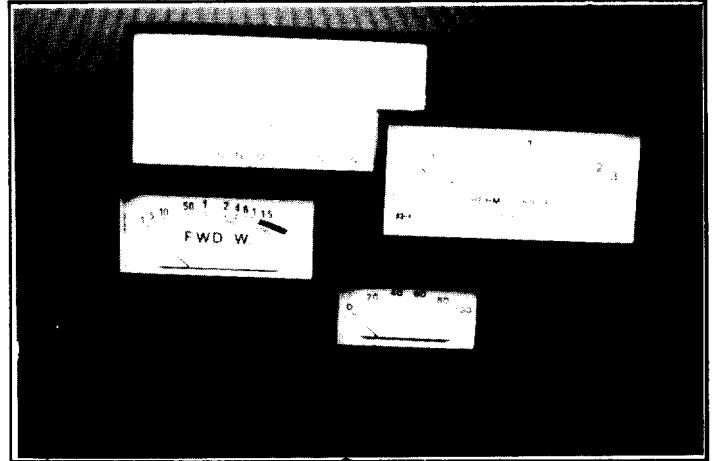
Two T1, filament lamps rated 12V (750mW each) or 24V 600mW each).

#### **HOUSING/BEZEL:**

Precision moulded black ABS, with polycarbonate window.

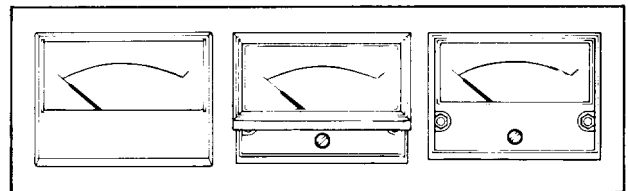
#### **ZERO ADJUSTER**

Front mounted. Tamper proof on Front Panel versions. Access at Customer option on X and XF versions.



ensures long-term repeatability and accuracy. Movements are contained within a barrel diameter of less than 26mm to give maximum packing density, front and back of panel. Sensitivities and ranges cover the whole spectrum of industrial standards and left-hand, right-hand, centre, offset or suppressed zeros may be supplied (A front mounted zero adjustment gives a generous trim on all models). For heavier duties, a.c. or d.c., the range is supported by a full selection of current transformers and shunts.

#### STYLE GUIDE



RECTANGULAR FRONT PANEL

'LANDSCAPE' WITH BEZEL (SUFFIX F)

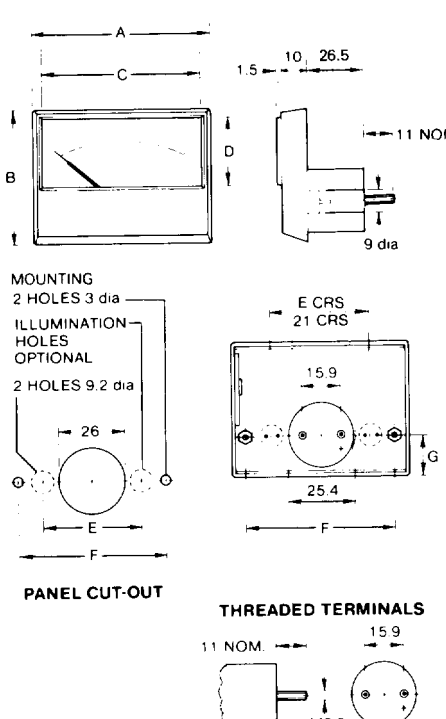
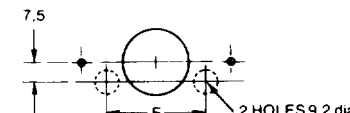
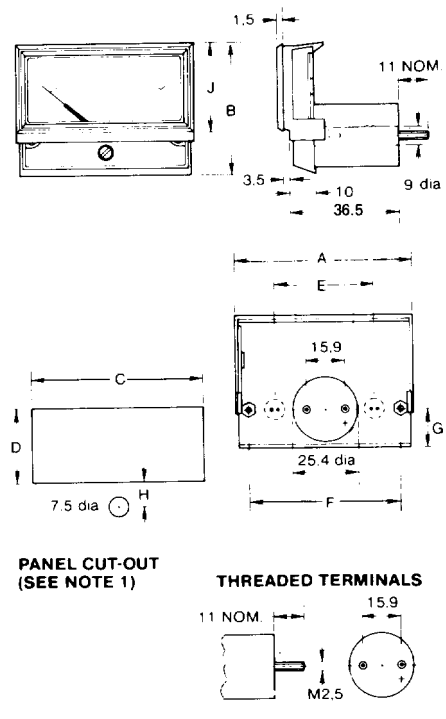
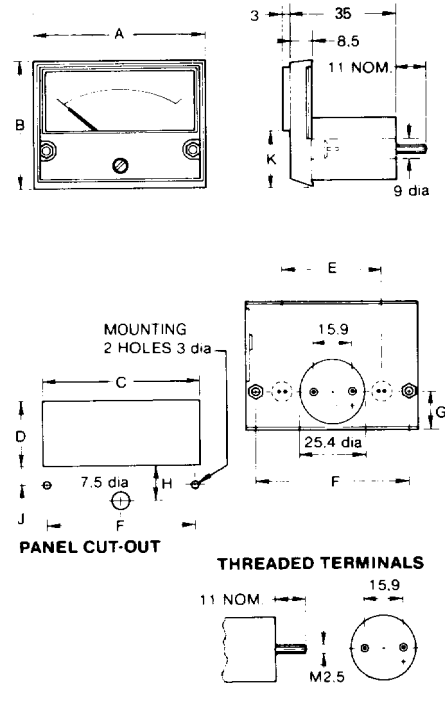
'LANDSCAPE' WITHOUT BEZEL (SUFFIX XF)

POINTER - Red knife edge standard Bar type is optional

#### **ORDERING INFORMATION: Please specify**

- ▶ **TYPE NO:** P48 or P72 or P96 or P120
- ▶ **MOUNTING:** Rectangular Front Panel (no Suffix) or 'Landscape' with bezel (Suffix F), e.g. P48F or 'Landscape' without bezel (Suffix XF), e.g. P48XF
- ▶ **RANGE:** Full scale deflection in electrical units (V,  $\mu$ A, etc.)
- ▶ **ACCURACY CLASS:** 1.5% (standard).
- ▶ **SCALE DETAILS:** Dial Colour, Divisions, Special markings, Caption, Mirror if required, etc. (enclose sketch).
- ▶ **POINTER:** Type and colour
- ▶ **TERMINALS:** M2.5 Threaded Studs.
- ▶ **INTERNAL ILLUMINATION:** None (standard) 5V, 12V or 24V.
- ▶ **SPECIAL REQUIREMENTS:** Please specify, e.g. Special response times.

### Dimensions

<b>DIN RECTANGULAR</b> (Screw mounting through front panel)	<b>'LANDSCAPE' with bezel (Suffix F)</b> (Snap-on mounting from rear of panel)	<b>'LANDSCAPE' without bezel (Suffix XF)</b> (Screw mounting through front panel)																																																																																																																																																						
 <p><b>MOUNTING</b> 2 HOLES 3 dia <b>ILLUMINATION HOLES OPTIONAL</b> 2 HOLES 9.2 dia</p> <p><b>PANEL CUT-OUT</b></p> <p><b>THREADED TERMINALS</b></p> <p>SCALE LENGTH H</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>P48</th> <th>P72</th> <th>P96</th> <th>P120</th> </tr> </thead> <tbody> <tr><td><b>A</b></td><td>48</td><td>72</td><td>96</td><td>120</td></tr> <tr><td><b>B</b></td><td>45</td><td>55</td><td>72</td><td>84</td></tr> <tr><td><b>C</b></td><td>41,6</td><td>63,7</td><td>87</td><td>111</td></tr> <tr><td><b>D</b></td><td>18,3</td><td>26,7</td><td>38</td><td>48,5</td></tr> <tr><td><b>E</b></td><td>30</td><td>40</td><td>52</td><td>62</td></tr> <tr><td><b>F</b></td><td>36</td><td>60</td><td>83,5</td><td>105</td></tr> <tr><td><b>G</b></td><td>16,2</td><td>17</td><td>20,7</td><td>21,5</td></tr> <tr><td><b>H</b></td><td>40</td><td>55</td><td>70</td><td>90</td></tr> </tbody> </table> <p style="text-align: center;">PANEL CUT-OUT FOR P48</p> 		P48	P72	P96	P120	<b>A</b>	48	72	96	120	<b>B</b>	45	55	72	84	<b>C</b>	41,6	63,7	87	111	<b>D</b>	18,3	26,7	38	48,5	<b>E</b>	30	40	52	62	<b>F</b>	36	60	83,5	105	<b>G</b>	16,2	17	20,7	21,5	<b>H</b>	40	55	70	90	 <p><b>PANEL CUT-OUT (SEE NOTE 1)</b></p> <p><b>THREADED TERMINALS</b></p> <p><b>NOTE 1:</b> Mounting Panel to be 3.5mm Thick</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>P48</th> <th>P72</th> <th>P96</th> <th>P120</th> </tr> </thead> <tbody> <tr><td><b>A</b></td><td>48</td><td>72</td><td>96</td><td>120</td></tr> <tr><td><b>B</b></td><td>44</td><td>53,5</td><td>71,5</td><td>82,5</td></tr> <tr><td><b>C</b></td><td>46</td><td>70</td><td>93,5</td><td>117,3</td></tr> <tr><td><b>D*</b></td><td>23</td><td>33,2</td><td>44,5</td><td>55</td></tr> <tr><td><b>E</b></td><td>30</td><td>40</td><td>52</td><td>62</td></tr> <tr><td><b>F</b></td><td>36</td><td>60</td><td>83,5</td><td>105</td></tr> <tr><td><b>G</b></td><td>15</td><td>15,8</td><td>19,5</td><td>20,3</td></tr> <tr><td><b>H</b></td><td>10,7</td><td>10</td><td>11,5</td><td>12,5</td></tr> <tr><td><b>J</b></td><td>24,7</td><td>35,2</td><td>47</td><td>57,5</td></tr> </tbody> </table> <p style="text-align: center;">* For 3,5mm panel thickness only. Contact factory for thicknesses.</p>		P48	P72	P96	P120	<b>A</b>	48	72	96	120	<b>B</b>	44	53,5	71,5	82,5	<b>C</b>	46	70	93,5	117,3	<b>D*</b>	23	33,2	44,5	55	<b>E</b>	30	40	52	62	<b>F</b>	36	60	83,5	105	<b>G</b>	15	15,8	19,5	20,3	<b>H</b>	10,7	10	11,5	12,5	<b>J</b>	24,7	35,2	47	57,5	 <p><b>PANEL CUT-OUT</b></p> <p><b>THREADED TERMINALS</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>P48</th> <th>P72</th> <th>P96</th> <th>P120</th> </tr> </thead> <tbody> <tr><td><b>A</b></td><td>45,5</td><td>69,5</td><td>93,5</td><td>117,5</td></tr> <tr><td><b>B</b></td><td>42,5</td><td>52,5</td><td>69,5</td><td>81,5</td></tr> <tr><td><b>C</b></td><td>41,6</td><td>63,7</td><td>87</td><td>111</td></tr> <tr><td><b>D</b></td><td>18,3</td><td>26,7</td><td>38</td><td>49</td></tr> <tr><td><b>E</b></td><td>30</td><td>40</td><td>52</td><td>62</td></tr> <tr><td><b>F</b></td><td>36</td><td>60</td><td>83,5</td><td>105</td></tr> <tr><td><b>G</b></td><td>15</td><td>15,8</td><td>19,5</td><td>20,3</td></tr> <tr><td><b>H</b></td><td>13,6</td><td>13,2</td><td>14,9</td><td>15,7</td></tr> <tr><td><b>J</b></td><td>7,4</td><td>7</td><td>8,7</td><td>9,5</td></tr> <tr><td><b>K</b></td><td>22</td><td>22,5</td><td>28,5</td><td>30</td></tr> </tbody> </table> <p style="text-align: center;"><i>ALL MEASUREMENTS ARE IN MILLIMETRES</i></p>		P48	P72	P96	P120	<b>A</b>	45,5	69,5	93,5	117,5	<b>B</b>	42,5	52,5	69,5	81,5	<b>C</b>	41,6	63,7	87	111	<b>D</b>	18,3	26,7	38	49	<b>E</b>	30	40	52	62	<b>F</b>	36	60	83,5	105	<b>G</b>	15	15,8	19,5	20,3	<b>H</b>	13,6	13,2	14,9	15,7	<b>J</b>	7,4	7	8,7	9,5	<b>K</b>	22	22,5	28,5	30
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