

For over 60 years, Jewell Instruments and our predecessor companies have provided high quality panel meter solutions for a wide range of aerospace, industrial and commercial applications. JEWELL and MODUTEC are some of the most trusted brands in the industry. They are known for:

- reliable, high quality, products
- superb applications knowledge
- custom designs for unique requirements
- “extended staff” relationships with customers
- creative engineering expertise

Jewell Instruments

The only panel meter manufacturer that offers a full spectrum of panel meters. Analog, digital. Any size, and shape. Surface mount, window mount, bezel mount. We have decades of broad-based experience resulting in our superior breadth of product — and our ability to meet your custom needs. Jewell Instruments can provide a proven, quick and cost-effective solution to your panel meter needs.

Analog panel meters can be either electrical or electronic. Application areas include:

Electrical

- **Field Strength Meters**
- **Power Generation**
- **Power Distribution Panel**
- **Control Panels**
- **Switchgear Panels**
- **Power Supplies**
- **Power Conditioners**
- **Voltage Regulators**
- **UPS Systems**
- **Automatic Transfer Switches**
- **Generator Paralleling Switchgear**

Electronic

- **Liquid Level**
- **Flow**
- **Pressure Monitors**
- **Volume Units**
- **Laboratory Equipment**
- **Test Equipment**
- **Broadcast Equipment**
- **Stereo Equipment**
- **Medical**
- **Temperature**
- **Battery Level**
- **Speed**
- **Tension Control**
- **Kilns**
- **Marine**
- **Chart Recorders**
- **Field Strength**

Digital panel meter applications include:

Digital

- **Telecommunications**
- **Welders**
- **Agricultural**
- **Water Purification**
- **Desalinization**

Meter Codes	Key
1 = Surface Mount	V=Vertical
2 = Window Mount	H=Horizontal
3 = Bezel Mount	Med=Medallion
4 = Edgewise	Sq=Square
5 = Switchboard	R=Round
	Rec=Rectangle

Model	Page	Mount Code	Shape	Sizes								Accuracy				AC Rectified	AC Iron Vane	DC	Self-Shielding
				1 1/2"	2"	2 1/2"	3 1/2"	4 1/2"	5"	5 1/2"	6"	8"	2%	3%	4%				
Surface Mount																			
S Series	4	1	Rec	•		•	•	•		•		•	•			•	•	•	•
2810 Series	4	1	Sq				•	•				•	•			•	•	•	•
PB Series	4	1	Sq	•		•	•	•				•	•			•	•	•	•
HS Series	5	1	R	•		•	•					•	•			•		•	•
45 Series	5	1	Sq						•			•	•			•		•	•
50 Series	5	1	R, Rec			•	•		•			•	•			•		•	•
MS Series	6	1	Rec	•		•	•					•	•			•		•	•
200 & 300 Series	6	1	R			•	•					•	•			•	•	•	•
72 Series	6	1	Sq			•	•								•	•		•	•
73 Series	6	1	R			•									•	•		•	•
25 Series	6	1	R			•						•						•	•
Model 133 & 135	7	1	Sq	•									•		•			•	
Model 4632 & 4652	7	1	R					•				•	•			•		•	•
Model 3432 & 3452	7	1	R				•					•				•		•	•
Model 443 & 445	7	1	R					•				•				•		•	•
Model 35	7	1	R				•					•	•			•		•	•
55 & 56 Series	8	1	Sq			•									•			•	
MM Series	8	1	Med	•		•	•					•	•			•		•	
MAS Series	8	1	Rec	•		•	•								•	•		•	
OMS & MSQ Series	8	1	Rec	•		•									•	•		•	
42 & 44 Series	8	1	Sq			•									•	•		•	
Window Mount																			
World Meter	9	2	Rec	•		•	•	•				•	•			•		•	•
W Series	9	2	Rec	•		•	•	•		•		•	•			•	•	•	•
Bezel Mount																			
SWM Series	9	1,2,3	Rec			•	•	•				•	•			•		•	•
55 Series	9	1,2,3	Sq				•								•	•		•	
2000 Series	10	1,3	Sq			•		•		•		•						•	•
70 Series	10	1,3	Sq	•		•	•		•		•	•	•			•		•	
BA Series	10	3	Rec	•		•	•	•		•		•	•			•	•	•	•
58 Series	10	3	Rec			•									•			•	
Edgewise																			
E Series	11	4	H,V		•							•				•		•	•
MD & ME	11	4	H,V	•	•										•	•		•	
13 & 13F	11	4	H,V		•										•	•		•	
Model 12	11	4	H,V	•											20%			•	
802 Series	11	4	H												•			•	
Model 111	12	4	H,V	•								•	•					•	•
Model 121	12	4	H,V		•							•	•			•		•	•
Model 131	12	4	H,V			•						•	•			•		•	•
Model 231	12	4	H,V			•						•	•			•		•	•
Switchboard																			
2830 Series	13	5	Sq					•				•				•		•	•
Model 4931	13	5	Sq					•				•				•			•
Model 496	13	5	Sq					•				•					•		•
Model 4951	13	5	Sq					•				•						•	•
Model 4981	13	5	Sq					•				•				•		•	•
Model 497	13	5	Sq					•				•				•		•	•
Model 4951-568	13	5	Sq					•				>.025%				•		•	•
Model 4951-727	12	5	Sq					•				>.025%				•		•	•
Model 4991	12	5	Sq					•					•			•		•	•



Surface Mount



Window Mount



Bezel Mount



Edgewise



Switchboard

Meter Movements

Taut-band

Taut-band suspension core-magnet construction and wrap-around powdered-iron pole piece provide inherent ruggedness and exceptional self-shielding. Recommended for rugged environments when high shock loads are the norm.

Pivot & Jewel

Pivot and jewel suspension is a standout for high torque, low internal friction, great accuracy and excellent tracking and repeatability. Recommended for rugged environments when vibration is common.

Moving Magnet

A moving magnet suspension with a permanent coil and a moving magnet is a much more cost-effective solution than a traditional d'Arsonval movement. With an accuracy level of 5%, it has a price/performance advantage when indication, and not pinpoint accuracy, is the meter's functional requirement.

AC Meters

AC meters are available in either rectifier type or iron-vane version.

- Rectifier type is the standard taut-band movement for alternating current (AC).
- Iron-vane movements are compact pivot and jewel suspensions. They have the advantage of insensitivity to input distortion, making them the appropriate choice for applications encountering environmental vibration.

Many options are available for our meters; they are almost infinitely customizable. Please call one of our experienced Applications Specialists or visit our Web site: www.jewellinstruments.com to view a detailed Specifications Sheet.

All of Jewell Instruments analog meters meet the ANSI C39.1 standard.

Jewell Instruments' edgewise panel meters offer high performance in a minimum of panel space. A one-piece bridge module maintains critical point-to-point dimensions in the pivot-and-jewel movement separate from the magnetic circuit. A shock-absorbing jewel arrangement provides for long operating life.

Edgewise

E Series — MODUTEC

These meters are compact — only 1/2" thick. The polycarbonate case and cover withstand hard knocks and extreme temperatures. There is a light well provided for optional back-lighting. The *E Series* kit includes spring clips for easy mounting.

Edgewise, horizontal, vertical, 2" x 1/2", DC 2%, AC rectified 2%, self-shielding



MD & ME Series — MODUTEC

The *MD* and *ME Series* are useful, space-saving meters in three sizes, interchangeable with many costly d'Arsonval meters or moving magnet meters from other sources. All sizes feature flush-to-panel covers without the bulge that disfigures many edgewise meters. A low-cost option provides internal illumination through a translucent dial — sophisticated lighting unusual in any economy meter, let alone an edgewise type.

Edgewise, horizontal, vertical, 1 1/4", 2", DC 5%, AC rectified 5%



13 & 13F Series — MODUTEC

The curved plastic fronts of the *13 Series* make for easy reading without recesses to collect dirt or moisture. Dial faces are completely customizable. Supplied with standard quick-connect type terminals; screw-type 45° offset terminal optional. The *13F Series* features a straight-across front enhancing readability. It hugs the front of the panel, projecting out only 3/16". The dial recesses slightly behind the cover providing dial illumination by proximity lighting.

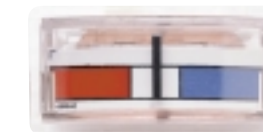
Edgewise, horizontal, vertical, 2", DC 5%, AC rectified 5%



Model 12 — MODUTEC

This compact indicator is perfect as a go/no-go indicator, circuit condition or as a miniature null-type, zero-center tuning indicator of balance in position. In the latter case, its proximate quantitative indication may be additionally useful. It is available with zero left, zero center or zero right indication.

Edgewise, horizontal, vertical, 1 3/8" x 9/16", DC 20%



802 Series — MODUTEC

802 Series are very small, low cost, uncalibrated meters for indicating on-off conditions or voltage transition points. They are rugged, dependable and require less than 2 mW to move flag or pointer. The *802* flag type has a white flag that moves from one end of a red & white scale to the other. Optionally, a pointer that moves across scale to indicate circuit condition is available.

Edgewise, horizontal, 5/16" x 1/4", DC 5%, (center point only)



Edgewise