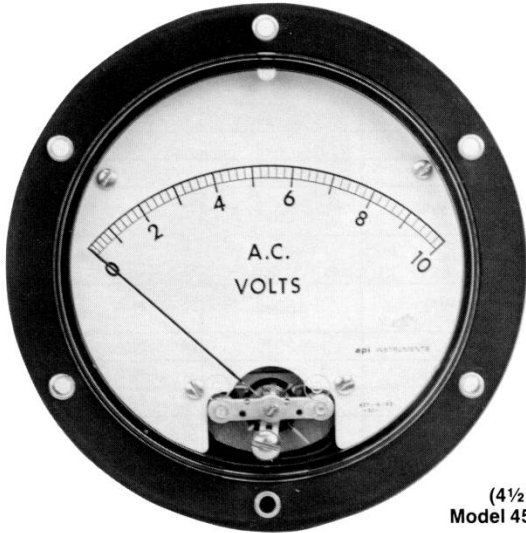
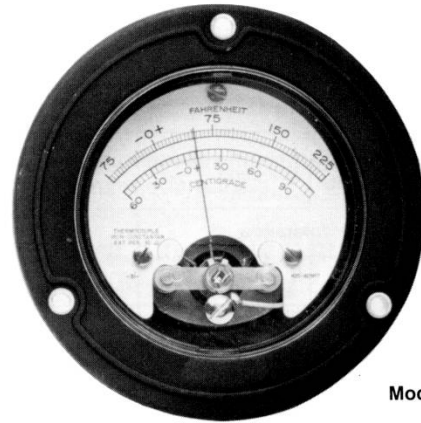




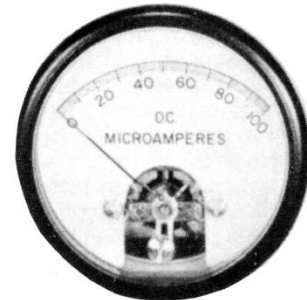
2 1/2, 3 1/2, 4 1/2 Diameter Round Meters Ruggedized-Sealed



(4 1/2")
Model 455



(3 1/2")
Model 355



(2 1/2")
Model 255

Features

- Gasket-sealed metal case protects meter in severe environments.
- Taut-band suspension standard for sensitive ranges.
- Standard indication accuracy of $\pm 3\%$ for AC.
- Custom scales, mirrored dials, special pointers, and other options available.

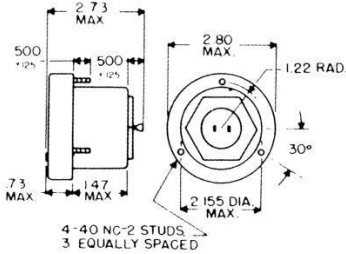
api ruggedized-sealed panel meters are designed and built to function in severe environments. The meter movement is securely anchored in a gasket-sealed metal case to provide protection against severe shock, salt spray, fungus, and corrosive chemicals. The meter conforms to the gasket-sealing requirements of the MIL-M-10304-C specifications. These panel meters are available in three sizes: 2 1/2", 3 1/2", and 4 1/2" diameters. The ruggedized-sealed panel meters are identical in appearance and in dimensions with the other **api** ruggedized-sealed instruments (pyrometers and meter relays). This interchangeability facilitates panel designing and functional upgrading.

api ruggedized-sealed meters use d'Arsonval meter mechanisms manufactured in the tradition which has made LFE a leader of quality instruments for the OEM panel meter user. The meters are furnished with taut-band suspensions as standard in the sensitive ranges from 0-5 μA to 100 μA and 0-5

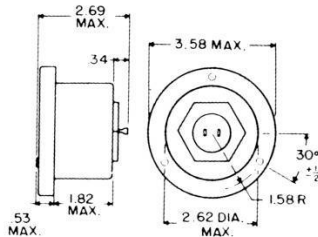
mV to 0-25 mV. Taut-band suspensions may be specified for other ranges as required. The higher ranges are normally furnished as pivot-and-jewel mechanisms. Taut-bands provide the advantage of friction-free measurements for the ultimate in accuracy. Taut-bands also allow the meter to respond to extremely small signals, extending the application of ruggedized-sealed panel meters to areas of sensitivity not previously possible. Additionally, taut-band meters offer increased resistance to shock and vibration over older pivot-and-jewel designs. Because severe vibration can cause momentary erratic readings on taut-band meters, LFE can provide specially damped meters which are free of this problem, but have relatively slow response times. **api** ruggedized-sealed panel meters have a standard one year warranty. Please contact your local LFE sales office for special scales and application assistance.

api Analog Panel Meters

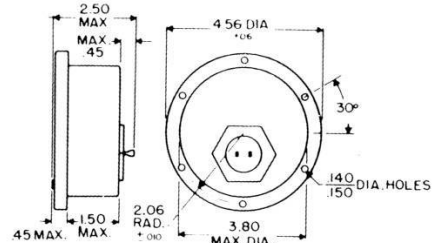
Dimensions



MODEL 255



MODEL 355



MODEL 455

Specifications

Accuracy: Indicating accuracy (absolute values), $\pm 2\%$ DC, $\pm 3\%$ AC, full scale, at 25°C.

Super calibrated DC meters are available with $\pm 1\%$ calibrated accuracy. Class II, III, and IV also available.

Tracking: Tracking, taut-band DC meters (0-20 μ A, 0-5 mV to 0-25mV), $\pm 1\%$ full scale. Exceptions: all non-linear dials.

Shielding: All ranges listed at right are self-shielding.

Internal Resistance: Resistance tolerance is $\pm 20\%$ at normal room temperature.

Special resistance specifications can be filled upon request (extra charge).

Internal resistance tolerance to $\pm 1\%$ (at 25°C) can be provided (extra charge).

Thermistor can be included in standard and Super-Calibrated mV range meters in most ranges to compensate for ambient temperature changes within range of -25 to $+ 125^\circ\text{F}$ (extra charge).

Zero: Zero left is standard.

Zero center, zero right, or zero off-center can be supplied; example: 50-0-100.

Suppressed zero up to 66-2/3% of the range can be suppressed; example: 100-150.

Response Time and Damping: Generally conforms with ANSI specifications C39.1 1972, for electrical indicating instruments.

Internal damping is not supplied in most pivot-and-jewel millivolt meters because they are generally used in low-resistance circuits that have an inherent damping effect.

Internal damping can be varied within the general limitations imposed by the circuit in which meter is used. Contact factory about special requirements. Please specify source impedance.

Pointer: Tubular pointer is standard.

Knife-edge pointers supplied when specified (at no extra charge). They are standard on Super-Calibrated meters and mirror-scale instruments.

Spade and lance types also available (extra charge).

Mirror Scale: Available only on Model 455.

Model Number	Size (Flange Diameter)
255	2 1/2"
355	3 1/2"
455	4 1/2"

Range	Ohms ¹	DC		AC	
Micro-amperes					
0-5	6320	2, 4	TB	5	
0-10	4460	2, 4	TB	3, 4	TB
0-20	2985	2	TB	3	TB
0-50	1005	2	TB	3	TB
0-100	1090	2	TB	3	TB
0-100	1085	2	PJ	3	PJ
0-200	6400	2	PJ	3	PJ
0-500	219	2	PJ	3	PJ
Milli-amperes					
0-1 to 0-50	(approx. 100 mVDC)	2	PJ	3, 6	PJ
0-60 to 0-1000	(approx. 50 mVDC)	2	PJ	3, 6	PJ
Amperes					
0-1 to 0-9	(approx. 50 mVDC)	2	PJ	3, 7	PJ
0-10 and up		2, 7	PJ	3, 6	PJ
Millivolts					
0-5	20	2	TB		
0-10	40	2	TB		
0-10	40	2	TB		
0-25	100	2	TB		
0-50	50	2	PJ		
0-100	100			8	TB
Volts					
0-1 to 0-500	Approx. 1000 ohms per volt	2	PJ	3, 10	PJ
Over 500		9		9	

Notes

PJ Pivot-and-jewel mechanisms is standard. Taut-band mechanisms with 1% tracking can be supplied at extra cost. Internal resistance may be different from values at left.

TB Taut-band mechanism is standard.

1 Resistance listed are for DC ranges only.

2 Available in DC ranges.

3 Available in AC ranges (Rectifier type)

4 1% tracking not standard. It is available at extra cost.

5 Not available.

6 External transformer supplied with meter. For AC ranges above 50 amperes an extra do-nut transformer is required.

7 External shunt is required above 9 amperes.

8 Available ranges are: 0-250 mVAC 0-500 mVAC

9 External multiplier resistor required for ranges over 500 volts AC or DC.

10 Ranges below 0-10VAC have limited accuracy due to variable resistance characteristics of rectifiers.

Pyrometer Ranges

api ruggedized-sealed panel meters are also available in pyrometer ranges.

Other Options Available

Special calibration

Special ranges

Special dials

Multiple-range meter (DC meters only)

Mirrored scale (Model 455 only)

Special pointer

Special moving coil resistance and tolerance

Special response time

Single or double index pointer

Overload protection

Suppression of range