

# Ruggedized-Sealed Series.



## Round Meters

**Models: 255** (2 1/2"), **355** (3 1/2"), **455** (4 1/2")

- ▲ Gasket-sealed metal case
- ▲ Great in severe environments
- ▲ Taut band suspension standard for sensitive ranges
- ▲ Standard indication accuracy of  $\pm 3\%$  for AC
- ▲ Wide selection of Ranges
- ▲ Customized scales available
- ▲ Mirrored scales available on Model 455
- ▲ Special pointers and other options also available

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-10204-C specifications. The ruggedized-sealed panel meters are available in three sizes: 2 1/2", 3 1/2" and 4 1/2" diameters. These panel meters are identical in appearance and in dimensions with the other LFE/api ruggedized-sealed instruments (pyrometers and meter relays). This interchangeability facilitates panel designing and functional upgrading.

The ruggedized-sealed panel meters use d'Arsonval meter mechanisms. The meters are furnished with taut band suspensions as standard in the sensitive ranges from 0-5 $\mu$ A to 100 $\mu$ A and 0-5mV to 0-25mV. 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, Triplett can provide specially damped meters which are free of this problem, but have relatively slow response times. LFE/api ruggedized-sealed panel meters have a one year warranty.

Ruggedized-Sealed Series Specifications					
Specifications	DC Ranges		AC Ranges (Rectifier Type)		Pyrometer
	Current	Voltage	Current	Voltage	
Accuracy	$\pm 2\%$	$\pm 2\%$	$\pm 3\%$	$\pm 3\%$	$\pm 2\%$
Tracking	Optional	Optional	Optional	Optional	N/A
Balance	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
Repeatability	Taut band	< 1/4%	< 1/4%	< 1/4%	< 1/4%
	Pivot-and-Jewel	2%	2%	2%	2%
Resistance Tolerance	$\pm 20\%$	$\pm 5\%$	————	< 10V $\pm 20\%$ $\geq 10V \pm 5\%$	N/A
Overload Capacity	1 Second	1000%	$\leq 100V$ 1000% $> 100V$ 200%	150%	150%
	Continuous	150%	120%	150%	150%
Calibration Frequency	————	————	60 Hz	60 Hz	N/A
Overshoot (maximum)	20%	20%	20%	20%	N/A
Response Time (maximum)	Sensitivity $\geq 50\mu A$	1.5 sec	1.5 sec	1.5 sec	1.5 sec
	Sensitivity $< 50\mu A$	3 sec	3 sec	3 sec	3 sec

Effects of shock, vibration, humidity and temperature are equal to or better than ANSI C39.1-1981.  
 Safety (dielectric test, leakage and other hazards): instruments are equal to or better than ANSI C39.5-1974.  
 The above tolerance limits apply to the standard ranges listed in this bulletin. Special instruments may vary from these limits.  
 Rated circuit to ground voltage = 250 Vrms (350 Peak).

DC Ranges	
DC Microamperes	5 to 1000
DC Milliamperes	1 to 1000
DC Amperes	1 to 9
DC Millivolts	5 to 1000
DC Volts	1 to 500

Process Ranges	
DC Milliamperes	1-5 4-20 10-50
DC Volts	1-5 0-10

AC Ranges (Rectifier Type)	
AC Microamperes	100 to 1000
AC Milliamperes	1 to 1000
AC Amperes	1 to 50
AC Millivolts	250 & 500
AC Volts	1 to 500

Thermocouple Pyrometers	
Contact Factory	

Ruggedized-Sealed Meter Dimensions			
Model	Flange Diameter	Barrel Diameter	Depth*
255 (2 1/2")	2.80	2.155	1.97
355 (3 1/2")	3.58	2.62	2.16
455 (4 1/2")	4.56	3.80	2.05

Dimensions are in inches.  
 \* Depth = front of panel to end of terminals.  
 See price sheet for part numbers.  
 Contact Factory for more information & dimensional drawings.

