



WS Series

Models: *WS1* (1 1/2"), *WS2* (2 1/2"), *WS3* (3 1/2")
WS4 (4 1/2"), *WS5* (5 1/2")

- ▲ Low Cost
- ▲ UL Recognized
- ▲ Interchangeable with other manufactures meters
- ▲ Surface or Window mount
- ▲ Wide selection of ranges
- ▲ Customized scales available
- ▲ Mirrored scales available
- ▲ Frequency models available

195 Series

Models: *1952* (2 1/2"), *1953* (3 1/2"), *1954* (4 1/2")

- ▲ Low Cost
- ▲ UL Recognized
- ▲ Interchangeable with other manufactures meters
- ▲ Wide selection of ranges
- ▲ Customized scales available
- ▲ Mirrored scales available
- ▲ Frequency models available

Industrial Panel Meters - WS Series & 195 Series Specifications

Specifications	DC Ranges		AC Ranges (Rectifier Type)		Iron Vane		
	Current	Voltage	Current	Voltage	Current	Voltage	
Accuracy	±2%	±2%	±3%	±3%	±2%	±2%	
Balance	±1%	±1%	±1%	±1%	1%	1%	
Repeatability	Taut band	±0.5%	±0.5%	±0.5%	N/A	N/A	
	Pivot-and-Jewel	±2%	±2%	±2%	±2%	±2%	
Resistance Tolerance	±20%	±20%	±20%	±20%	±20%	±20%	
Overload Capacity	1 Second	1000%	≤ 100V 1000% > 100V 200%	150%	150%	1000%	≤ 100V 1000% > 100V 200%
	Continuous	150%	120%	120%	120%	150%	120%
Calibration Frequency	N/A	N/A	60 Hz	60 Hz	60 Hz	60 Hz	
Overshoot (maximum)	25%	25%	25%	25%	40%	40%	
Response Time (maximum)	3 sec	3 sec	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 = 800 Vrms (1100 Peak).

DC Ranges

DC Microamperes	100 to 500
DC Milliampere	1 to 750
DC Amperes	1 to 50 15 to 2000 ¹
DC Millivolts	10 to 500
DC Volts	1 to 1000

AC Ranges

AC Microamperes	None
AC Milliampere	1 to 500
AC Amperes	1 to 50 1 to 1000 ²
AC Millivolts	None
AC Volts	1 to 600 300 and up ³

- 1 Shunt Rated 50 Millivolt input
- 2 Transformer Rated 5 Amp AC input
- 3 Transformer Rated 150 Volt AC input

WS Series Dimensions

Model	Height	Width	Depth*
WS1 (1 1/2")	1.75	2.24	1.55
WS2 (2 1/2")	2.27	2.99	1.80
WS3 (3 1/2")	2.87	3.70	1.80
WS4 (4 1/2")	3.96	5.10	1.80
WS5 (5 1/2")	4.48	5.85	1.80

195 Series Dimensions

Model	Height	Width	Depth*
1952 (2 1/2")	2.70	2.70	1.85
1953 (3 1/2")	3.50	3.50	1.88
1954 (4 1/2")	4.41	4.85	1.88

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.