

2768 Precision Wheatstone Bridge



2768
310×491×140mm 10kg
(12-1/4×19-3/8×5-1/2" 22lbs)

Model 2768 is a precision bridge used for exact determination of resistance in the 100 mΩ to 110 MΩ range with accuracy of 0.01 to 0.05%. Since this instrument includes a high-sensitivity transistorized galvanometer and bridge power source, no auxiliary device is required.

- **Superior resistor element**
- **Minimized contact resistance**
- **Guarding and shielding**

Materials of high insulation resistance and low absorption are employed. Guard circuits are provided to insure stable operation even in highly humid atmospheres. The instrument is housed in a (grey) metal case to assure the operator of excellent shielding.

- **Heat-insulated pushbutton keys**

If the operator's body temperature were carried to the galvanometer sensitivity control keys, a temperature difference would arise at the contact point and produce thermal emf resulting in measurement error. To eliminate this effect, the pushbutton keys for the galvanometer sensitivity control are heat-insulated with phenol resin.

SPECIFICATIONS

Measuring Method: Null method (in-line readout).

Measuring Range:

Range	Measuring Range	Min. Division
x 100 mΩ	0.10000 to 1.11110 Ω	10 μΩ
x 1 Ω	1.0000 to 11.1110 Ω	0.1 mΩ
x 10 Ω	10.000 to 111.110 Ω	1 mΩ
x 100 Ω	100.00 to 1111.10 Ω	10 mΩ
x 1 kΩ	1.0000 to 11.1110 kΩ	0.1 Ω
x 10 kΩ	10.000 to 111.110 kΩ	1 Ω
x 100 kΩ	100.00 to 1111.10 kΩ	10 Ω
x 1 MΩ	1.0000 to 11.1110 MΩ	100 Ω
x 10 MΩ	10.000 to 111.110 MΩ	1 kΩ

Measuring Arm: 0 to 11, 111Ω adjustable in 0.1Ω steps, (consists of five decades: 1,000Ω x 10 + 100Ω x 10 + 10Ω x 10 + 1Ω x 10 + 0.1Ω x 10).

Multiplier: x 100mΩ, x 1Ω, x 10Ω, x 100Ω, x 1kΩ, x 10kΩ, x 100kΩ, x 1MΩ and x 10MΩ.

Accuracy: (At 23 ± 2°C, less than 75%)

x 100mΩ range ... ±0.5mΩ, x 1Ω range ... ± (0.02% of setting + 0.5mΩ), x 10Ω, x 100kΩ & x 1MΩ ranges ... ±0.02% of setting, x 100Ω, x 1kΩ & x 10kΩ ranges ... ±0.01% of setting, x 10MΩ range ... ±0.05% of setting.

Maximum Allowable Input: 0.2W continuously for ratio arm, 0.2 W continuously per element for measuring arms.

Galvanometer (built-in): Max. sensitivity ... approx. 10μV/div. (provided with a sensitivity adjuster), power source ... single 9V battery (JIS 6F22 or equivalent), battery life ... approx. 300 hours.

Insulation Resistance: More than 1,000MΩ at 250V DC at ambient humidity of less than 75% between electric circuit and case.

Dielectric Strength: 500V AC for one minute between electric circuit and case.

Case: Grey metal case, with plastic feet and carrying handles.

Bridge Power Source (built-in): Power source range ... 1.5/3/6/15 V selectable, power source battery ... four 1.5V batteries (JIS R20P, ANSI D, Mono 1.5V or equivalent) and single 9V battery (JIS 6F22, ANSI 6F22, Energieblock 9V or equivalent).