

DIGITAL HALL EFFECT METER PROBE GAUSS METER



622604

GENERAL DESCRIPTION

The Magnaflux® Digital Hall Effect Probe Gauss Meter measures AC and DC field strength. It comes packaged in a case with a traverse probe, zero gauss chamber and batteries.

INSTRUCTIONS

1. Press the power switch. The meter will perform a self-test. If any circuitry errors are detected and “Err” (error) message will appear on the display and a retest will be performed. The unit will retest until circuitry passes the test.
2. After circuitry passes, the unit will conduct a calibration test. A “CALX” (calibration) message will appear on the display at this time. If the probe is not connected, calibration will be delayed.
3. Select your desired range by pressing the RANGE button. When the range legend flashes, press UP and DOWN to select the desired range. Choose AUTO RANGE on the display by pressing the SHIFT button followed by the range button. AUTO RANGE will automatically select the best range for the present flux density.
4. The active area of the probe should not exceed 0.2” (5.1 mm) x 0.2” (5.1 mm) and should have a maximum center location of 5 mm from the part surface. A probe must be used, because it is difficult to achieve these settings using hand orientation.
5. Hold the probe in a jig or fixture. If the current is being applied using shots or if AC or HW rectified AC is used, the gauss meter should be set to read the peak value during the shot.
6. The gauss meter frequency response should read 300Hz or higher.
7. To determine the direction and magnitude of the tangential field on the part surface, make two measurements at right angles of each other at the same location.
8. The gauss meter probe leads should be protected or twisted to avoid reading errors from voltage induced during large field changes experienced during magnetic particle testing.

SPECIFICATIONS COMPLIANCE

ASTM E709-08 (Section 14.2.3, 20.3.6)

ASTM E1444-1444M-12 (Section 6.3.1.2, 7.4.6, Annex A5)

BPVC (Section V, Article 7: T-764.2(c))