

## Magnetic Field Indicators – Residual Magnetism Measurement

### General Description:

Magnetic Field Indicators are **precision instruments** designed to measure **residual magnetism** in ferromagnetic materials after **Magnetic Particle Testing (MPI)**. These instruments provide **quick, reliable readings** and help ensure compliance with industry standards.

### Key Features:

#### ✓ Quick and Easy Measurement –

Simply place the indicator arrow against the test surface for an **instant reading** of residual magnetism.

#### ✓ Versatile Models Available – Offered

in **General-Purpose, Non-Calibrated, and Calibrated versions** to suit various testing needs.

#### ✓ Multiple Measurement Ranges:

- 5-0-5 gauss
- 10-0-10 gauss
- 20-0-20 gauss
- 50-0-50 gauss

✓ **Recalibration Capability** – Calibrated models can be **recalibrated periodically** to maintain accuracy and ensure compliance with industry standards.

#### ✓ Standards Compliance:



- ASTM E709
- ASTM E1444/D1444M-12
- ASME Section V, Article 7

These field indicators are essential tools for **NDT professionals**, providing accurate residual field measurements in various applications, including quality control and safety checks.

### Magnetic Field Indicator – Data Sheet:

Parameter	Specification
<b>Measurement Ranges</b>	5-0-5 gauss, 10-0-10 gauss, 20-0-20 gauss, 50-0-50 gauss
<b>Models Available</b>	General-Purpose, Non-Calibrated, Calibrated
<b>Magnetic Polarity Detection</b>	Indicates North (+) or South (-) poles
<b>Display Type</b>	Center-zero analog scale
<b>Recalibration</b>	Available for calibrated models
<b>Usage</b>	Measures external magnetic field leakage
<b>Sensitivity Area</b>	Lower rim below the arrow provides highest sensitivity
<b>Material Compatibility</b>	Ferromagnetic materials
<b>Compliance Standards</b>	ASTM E709, ASTM E1444/D1444M-12, ASME Section V, Article 7

## Instructions for Using the Magnetic Field Indicator:

### 1. Placement:

- Position the field indicator near or directly against the magnetized surface.
- The **lower rim below the arrow** is the most sensitive part of the meter and should be closest to the measured surface.

### 2. Optimal Measurement Location:

- For the most **accurate readings**, place the indicator near areas with **flux leakage**, such as the ends of bar-shaped parts.

### 3. Magnetic Polarity Indication:

- The **pointer deflection** on the center-zero scale determines polarity:
  - **(+) Positive reading** → Indicates a **North magnetic pole**.
  - **(-) Negative reading** → Indicates a **South magnetic pole**.
- The **higher the reading**, the **stronger the magnetic field**.

### 4. Interpreting Gauss Readings:

- The values represent **external leakage fields**.
- Do **not** interpret these readings as the **flux density within the material**.

This **Magnetic Field Indicator** is an essential tool for verifying **residual magnetism**, ensuring accurate and efficient **magnetic particle inspection (MPI)**.