

- Professional manufacturer, best quality with competitive price
- Recommended by the world UT NDT inspection association for training and examination
- MDG-5 Core technology with independent intellectual property rights, certificate of CE, GOST and etc..

# **Black and White Density meter**



#### **Overview**

MITECH MDG-5 Black and White Density meter, based on the principle of light transmission, through the analog to the single-chip analysis and calculation, it can quickly detect the X-ray film blackness value. With small, light weight, easy carry, high-precision photoelectric sensor, it is widely used in non-destructive testing, medical and other industries. It is the ideal instrument for quality analysis of X-ray film such as pressure vessel, hull, chemical industry, bridge, hospital and so on.

#### **Technical Parameters**

| Technical Specifications | Technical Parameters                |  |  |
|--------------------------|-------------------------------------|--|--|
| Measurement Range        | 0.00-5.00D                          |  |  |
| Sampling Time            | 0.8s                                |  |  |
| Diameter of Light Hole   | 2mm                                 |  |  |
| Display                  | Digital display                     |  |  |
| Stability                | ±0.02D                              |  |  |
| Display Accuracy         | 0.01D                               |  |  |
| Measurement Accuracy     | 0.00-3.00D≤0.02D ; 3.00-5.00D≤0.04D |  |  |
| Instrument Power         | About 10W                           |  |  |
| Power Supply             | 220V±10%, 50-60Hz                   |  |  |
| Dimension                | 300*110*58mm                        |  |  |
| Weight                   | 1.5kg                               |  |  |

#### Features

- High precision, small size, light weight, easy to carry.
- Adopt single-chip technology, high detection efficiency (only 0.8s), stable performance.
- Equipped with standard density sheet, can be used to verify the accuracy of the instrument to ensure accurate measurement.
- Consistent with ASME, GB/T and others relevant domestic and foreign standards.

#### Working principle

The product is based on the principle of light transmission, through the analog to the single-chip analysis and calculation. When the instrument works, the AC signal that generated by computer will through the driver light the light source, and then the photodetector can get the alternating signal. Finally through the converter, amplifier, synchronous detector into a DC signal from the computer to deal with the calculation of density, and the value is displayed synchronously.

### Scope of application

• Widely used in pressure vessels, hull, chemical, bridges, hospitals and other X-ray quality analysis.

# Working Conditions

- Operating temperature: 0 °C ~ 40 °C;
- Relative humidity: ≤ 85%;
- No corrosive media in the surrounding environment;
- No strong magnetic field in the surrounding environment

# Configuration

|                        | NO. | Name                   | QTY. | Remarks                           |
|------------------------|-----|------------------------|------|-----------------------------------|
| Standard —<br>Config — | 1   | Main unit              | 1    |                                   |
|                        | 2   | Standard density sheet | 1    |                                   |
|                        | 3   | Power cable            | 1    |                                   |
|                        | 4   | 2A fuse                | 2    | Including calibration certificate |
|                        | 5   | Attached files         | 1    |                                   |