

## Technical data

measuring range diffuse optical density D	D = 0 up to 5.0
measuring accuracy (D < 4.80)	+/- 0.01
display accuracy	+/- 0.01
repetition accuracy	+/- 0.01
measuring area	Ø 3 mm
power supply	9 V Batterie IEC 6LR61
battery alert	LOW BAT
power consumption without display backlight	~ 1 mA
power consumption with minimum display backlight	~ 3 mA
power consumption with maximum display backlight	~ 20 mA
housing and probe material	Kunststoff
housing dimensions	150 x 80 x 30 mm
weight incl. battery	235 g

## DIGIT 9

### Hand Probe Densitometer Film evaluation



display with backlight

## Operating Instructions DIGIT 9

The Hand Probe Digital Densitometer DIGIT 9 is a precise and reliable instrument for gauging density  $D$  of industrial X-ray films ( $D$  = diffuse optical density).

### Features:

The device consists of a handy measuring instrument and a hand probe connected by a flexible cable 1 m long.

- measuring area: aperture diameter 3 mm
- slide switch on the left for switching on/off the microprocessor controlled electronic
- clear LCD-display with background lighting, brightness adjustable via potentiometer
- **red ZERO setting button** for resetting all indicated values when adjusting to the brightness of the filmviewer
- potentiometer for recalibrating

### Measuring procedure:

1. Switch on the densitometer, the display shows **METRITEC**.
2. Place the probe exact vertically onto the white diffusing screen of glass, where the X-ray film is to be evaluated. Then press the red reset button in the middle of the front to set the indication to zero **D=0.00**.

If the brightness is too low, the display indicates **TOO DARK**.

3. Put the X-ray film onto the diffusing screen and hold the probe vertically on that point, where you intend to check the optical density of the film.
4. The indicated value corresponds to the optical density of the film.

Attention: Keep a time interval of at least 5 seconds between switching off and on again.

Possible display: **LOW BAT** = battery has to be changed

### Calibration:

Each instrument is controlled and calibrated conscientiously before delivery. The calibration should be done annually by qualified personnel following a calibrated density reference scale.

Where necessary, an internal potentiometer allows a recalibration. The access is located on the right side of the housing below: **Kalibr. ⇒** (first remove the yellow protective strip)

### Background lighting:

The DIGIT 9 display has a orange-colored background lighting, which allows the operator a more pleasant reading.



The backlight brightness can be set by a potentiometer.

The figures show how to adjust the backlight brightness by using the included screw driver. The access to the potentiometer inside is through a hole on the left side above the on/off slide switch.

*When adjusting please proceed with special care, since the DIGIT 9 is a precise measuring instrument.*



### Switch on/off the display light:

To minimize the power consumption of the device, the backlight can be switched off, if required. The quick menu will start, when the red button is kept pressed while the power is switched on. When display shows **BL ON/OFF**, release the red button again: **PUSH 1-2**.

Pressing once = switched on **1:ON**  
Press a second time = light is switched off **2:OFF**.