

DIGITAL DENSITOMETER FMD-12

Characteristics

Digital densitometer FMD-12 is a portable battery-powered densitometer designed for measuring radiograph blackening using an external light source. It has been developed for bulb negatoscopes (it can also be used on negatoscopes with fluorescent and LED light, we recommend recalibration of the instrument using a densitometric etalon, e.g. FOMASTEP E-09).

Technical Description

Densitometer FMD-12 consists of the actual measuring instrument, the measuring probe, and the connecting shielded cable. The connector for connecting the probe using the shielded cable is located on the face of the instrument under the display and protected against spontaneous disconnecting. The measuring probe is of a pencil design with a plastic black case and it is connected to the instrument using a short cable and it is removable. Densitometer FMD-12 is equipped with semi-automatic zero setting and automatic turning off, when the instrument is not used.

Instrument Recalibration

Densitometer FMD-12 allows for recalibration according to ASME SE-1079 or ASTM E 1079-85 ("Standard practice for calibration of Transmission densitometers") using the setting element located on the upper right side of the instrument. The recommended interval for repeated linearity checking or instrument recalibration is 90 days. For instrument recalibration, we recommend using FOMASTEP E-09 densitometric etalons.

Supply Subject

- Densitometer FMD-12
- Measuring probe
- Connecting cable with a USB connector
- Battery 9V (type 6F22)
- Calibration sheet
- Operating manual
- Suitcase

Instrument Advantages

- Very high accuracy thanks to the use of an integrated circuit with a capability to logarithm in 5 decades with an error of 0.2%
- Zeroing with any light
- One of the smallest densitometers in the market



Technical parameters

Measuring range	0–4.0 D
Resolution	0.01 D
Precision	±0.05 D (within 0–4.0 D)
Display	Blackening, +/-, LOBAT
Zero setting range	In any light
Zero holding time	About 5 min (±0.01 D)
Zero stabilisation time	Max. 1 s
Data stabilisation time	Max. 2 s
Probe opening diam.	2 mm
Power – battery	9 V type IEC 6F22 or 6LR61
Consumption on/off	4.0 mA/0.009 mA
Operating time (meas.)	About 50 hrs (norm. battery)
Control	2 buttons
⏻ – on/off	- [0] – zero setting
Automatic turning off	About 5 min after turning on
Ambient temperature	5–35 °C
Dimensions	79 x 118 x 25 mm
Cable length	70 cm
Weight	155 g