

# Densitometers



## DEN-1

A compact and efficient benchtop densitometer for measuring turbidity of cell suspensions in a variety of life science applications.

The DEN-1 is designed and factory calibrated to measure turbidity in the range of 0.3 to 5.0 McFarland units with a small standard deviation. If required, it can deliver a wider measurement range (up to 15.0 McFarland units), but with a greater standard deviation.

- **Measurement range: 0.3 to 15.0 McFarland units**
- **Measurement time : 1 second**
- **Precision:  $\pm 3\%$**
- **Standard deviation at 3.0 McF units:  $3.0 \pm 0.1$**
- **User calibration option**

Designed for tubes with an outer diameter of 18 mm 16 mm and 13 mm tubes can also be accommodated by using the optional tube adaptor D-16

Factory calibrated – retains calibration without power supply. Can be user calibrated with commercial standards or cell suspensions prepared in the laboratory

**DEN-1 densitometer (suspension turbidity meter)**

Readings, conveniently shown in McFarland units, are clearly visible on the bright LED display

Extremely compact design with small footprint and low profile – fits easily into the smallest workspace

Optional connection to PC



Typical applications include determining concentration of cells (bacterial and yeast cells) in the fermentation process, detecting the susceptibility of micro-organisms to antibiotics, identifying micro-organisms with various test systems, and measuring optical density at fixed wavelength.



### Accessories for DEN-1

- **D-16** – tube adaptor for tubes with 16 mm outer diameter
- **D-13** – tube adaptor for tubes with 13 mm outer diameter

## Densitometers » DEN-1 specification

### Densitometers – specification

● = option

		Densitometer
		DEN-1
		
		
Light source		light diode
Wavelength, $\lambda$	nm	$565 \pm 15$
Range	McFarland units	0.3 to 15.0
McFarland unit standard deviation	0.5 McF	$\pm 0.1$
	3.0 McF	$\pm 0.1$
	6.0 McF	$\pm 0.2$
	7.5 McF	$\pm 0.2$
Precision		$\pm 3\%$
Measurement time	sec	1
Tube diameter,	external diameter	mm
	with D-16 adaptor	mm
Sample volume	cm	$\approx 2$
Display		2 digit LED
PC connection		●
External power supply		12V, 300 mA
Ambient temperature range	$^{\circ}\text{C}$	4 to 40
Dimensions	mm	165 x 115 x 75
Weight	kg	0.9