

# Heiland B&W Densitometer TD-Series

## Measurement of B&W films for photographic applications like X-ray films and microfilms

### Wide area of applications

Based on the TRD series, this product line is designed for transmission only measurement of colour neutral films. The density is continuously measured and displayed in units of logarithmic density (log.D).

The following applications are given as a brief introduction how to benefit of density measurement.

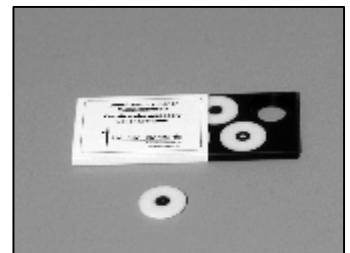
- Calibration of film and developer
- Determination of true film sensitivity
- Process control of x-ray film



### Various models to meet your specific requirement

The TD densitometer is mainly used for measurement of silver based microfilm and X-ray films. It is equipped with a fixed aperture (diameter can be selected prior to ordering), the probe is not exchangeable.

**TD 1** This model is mainly used for photographic applications (i.e. B&W films). It is equipped with a set of 4 exchangeable apertures of various diameters (0,5/1/2 and 3mm). Note: smaller diameters reduce the amount of light, therefore the measurable max. density is lowered too.



### Instrument description

All specs and functions as well as the working procedure are identical to the TRD series. The main difference is the probe which has a more circular shape and the missing capability of reflection measurement.

## Available options

Some of these densitometers can be equipped with options, thus extending the range of applications without selling meaningless equipment.

Opt.03: An USB port allows to transfer the actual displayed density value to a PC. We are offering special PC software tools.

Opt. 05: Extends the measurement range in the transmission mode to 5,5 logD. This is useful for high density films (available for Densitometer TD only).

Opt. 06: Extends the resolution of the display to 0.001 logD for densities lower than 1 logD.

Opt. 07: Extends the measurement range in the transmission mode to 6,5 logD by using a high brightness LED as the light source (available for Densitometer TD only).

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## Technical data

Dimensions (length x width x height):	200 x 130 x 135 mm
Weight:	1 kg
Power supply:	12VDC, wall plug power supply included
Power consumption	6 VA
Available aperture diameters:	0,5 / 1 / 2 / 3 mm (Opt.02. includes all 4)
Light source Transmission:	2700 Kelvin, diffused
Maximum object size (width x thickness):	260 mm x 2 mm (length: infinite)
Maximum measurable density	
• Transmission aperture 3,0mm:	4,0 D
aperture 2,0mm:	3,5 D
aperture 1,0mm:	3,0 D
aperture 0,5mm:	2,0 D
Reading variation:	+/- (1% + 0,02 log.D.)
Repeat accuracy:	+/- 0,01 D
Temperature range:	17 ... 27° Celsius / 62 ... 81° Fahrenheit
Relative humidity:	0 ... 70 %
Accessories:	1 calibration strip