

PocketMonitor

Compact Laser Power Meter

- fast and convenient
- easy handling
- practical design
- tough
- exact



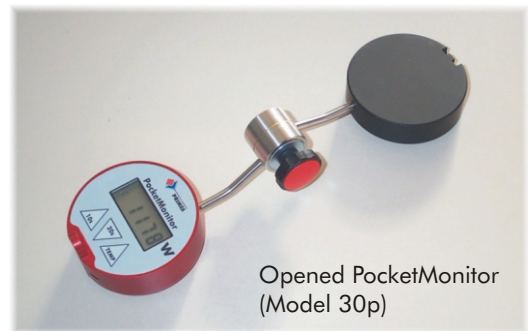
Closed PocketMonitor

The PocketMonitor is an easy to use and mobile laser power meter, that has consequently been developed for everyday application in production. Emphasis was laid on a compact design and fast, trouble-free use. The electronics is protected against impact, shock and dampness by a solid aluminium housing. When the housing is closed, the absorber protects the operational elements. An optional transportation and storage box was designed for perfect performance



PocketMonitor - ready for measurement (Model70icu)

The microprocessor-controlled electronics measure the temperature of the absorber and calculates the power of the laser beam with a resolution of one Watt. With a resolution of that high, measurements can be carried out in a very wide power range with constant accuracy.



Opened PocketMonitor (Model 30p)

Characteristic and operational area - special customized solutions are often possible.

Beam	Power	1mW	2 W	12 kW	MW	>MW	Device	Temporal resolution	Single pulse	ms	10-20 s	cw		
	Beam width	1 μm	10 μm	50 μm	3 mm	20 mm		70 mm	User	R&D	Laser Manufact.	System Manufact.	Service	Enduser
	Wave length	300 nm	800 nm	10,6 μm					Application	Stand alone	Stand alone und OEM	OEM		
	Pulse duration	fs	ps	ns	μs	ms		s	cw	Prize	low	middle	high	

PocketMonitor

The big , 4½ digit display optionally indicates the laser power or the temperature of the absorber. Power is supplied by a built-in lithium cell for approximately 10,000 measurements.

Damaged absorbers could be disassembled at the join easily. This will reduce any refurbishing costs due to an absorber overload.

The different PocketMonitor models

Six different PocketMonitors are available for corresponding power ranges.

The models PocketMonitor70icu and 120icu with a cone made of copper are designed to withstand very high power densities.

Description	Power range	Geometry	Weight
PocketMonitor 002p	1 W - 20 W	plane	530 g
PocketMonitor 01p	5 W - 100 W	plane	535 g
PocketMonitor 05p	25 W - 500 W	plane	560 g
PocketMonitor 30p	150 W - 3,000 W	plane	670 g
PocketMonitor 70icu	350 W - 7,000 W	conical	1,110 g
PocketMonitor 120icu	600 W - 12,000 W	conical	1,550 g



A choice of different PocketMonitor-Models

Technical Data:

Power range:	10 W to 12 kW (depending on size of the absorber)
Resolution:	1 W (PMT 120 icu) - 0.01 W (PMT 002p)
Dynamics:	20 bit A/D converter
Exposure time:	10 or 20 seconds
Life span (battery):	extremely long, approximately 10,000 measurements
Display:	4½ digit LCD, integrated in a robust aluminium housing (IP65)

In measuring position (open), the length of the device is 279 mm. The diameter of the absorber is 79 mm (Model 70icu).

Accuracy of the PocketMonitor is $\pm 4\%$ of the measured value in the range of 10% to 100% of the maximum value.

Reproducibility: 2 %, In the case of careful dissection 1 %

Power density often can be as important for the choice of a PocketMonitor model as the maximum laser power. Especially the PMT 70icu and the PMT 120icu have an outstanding capacity for high power densities. With these two types, even measurements at $5\text{kW}/\text{cm}^2$ at 5kW optical power are possible.

Options

The PocketMonitor ist not only available with different absorber sizes, even separated absorbers are possible.

An additionally optional current loop interface and an OEM version for mechanical integration is available.

A transportation box for safe shipment and storage has been conceived.

The option for calibration completes the choice. Constant recalibrating is recommended.

All options could be combined with all instruments. This leads to a most complete and flexible measurement device.

We are glad to assist you in your choice of the right PocketMonitor for your application.



PocketMonitor (Model 05 with separated absorber)



Transport box for the PocketMonitor