

# Series PEM HiRep

These sensors have a thin metallic or black absorption layer leading to a faster heat transfer to the sensor element. Repetition rates up to more than 2000 pps. are possible. The spectral behaviour is flat in the VIS and NIR but for longer wavelengths the absorption properties have to be taken into account. Main application is the use at one wavelength. The metallic coating of the two UV types is more stable in the ultraviolet region than the organic black coating.

	PEM 12 HiRep	PEM 24 HiRep	PEM 12 HiRep UV	PEM 24 HiRep UV
active diameter	12 mm	24 mm	12 mm	24 mm
sensitivity	20..30 V/J	20..30 V/J	35..45 V/J	35 .. 45 V/J
max. repetition rates	750 Hz	750 Hz	2,5 kHz	1,2 kHz
max. average power	2 W	5 W	2 W	5 W
max. energy density (10 ns pulse)	80 mJ/cm <sup>2</sup>	80 mJ/cm <sup>2</sup>	50 mJ/cm <sup>2</sup>	50 mJ/cm <sup>2</sup>
max. peak power density	8 MW/cm <sup>2</sup>	8 MW/cm <sup>2</sup>	5 MW/cm <sup>2</sup>	5 MW/cm <sup>2</sup>
working range	30 µJ - 100 mJ	30 µJ - 350 mJ	30 µJ - 60 mJ	30 µJ - 250 mJ
accuracy	±3%	±3%	±3%	±3%
dimension (diameter x length)	40 mm x 40 mm	55 mm x 39 mm	40 mm x 40 mm	55 mm x 39 mm

