PulseSwitch

CAVITY DUMPER

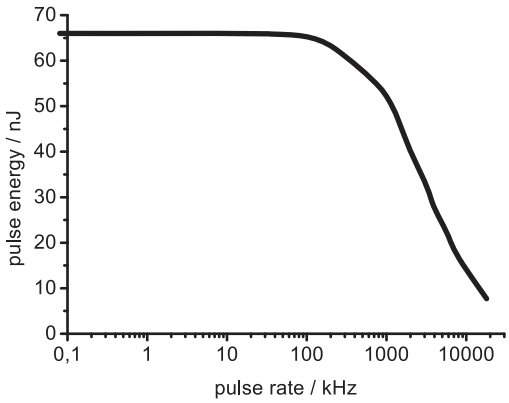
APE

The cavity dumper **PulseSwitch** is an acousto-optical switch, which - unlike pulse pickers - is integrated in the laser resonator.

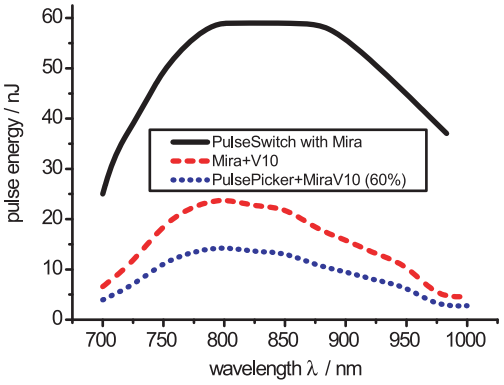
The intracavity operation allows for variably reduction of the pulse repetition rate in mode-locked laser systems while increasing the pulse energy at the same time. This is particularly effective in combination with nonlinear converters like SHG and THG.

- Designed for use with the Coherent Mira 900 femtosecond Ti:Sa laser
- Combined Cavity Dumper/Pulse Picker option
- Picosecond Cavity Dumper version
- Integrated SHG option with conversion efficiencies of 45% and more
- Easy to install and remove

Typical PulseSwitch performance together with the Coherent Mira 900F@800nm



PulseSwitch wavelength tuning (typical values at 500 kHz)



Ultrafast Pulse Diagnostics

Wavelength Conversion

Pulse Management

Acousto-optics

Your Partner in Ultrafast

PulseSwitch

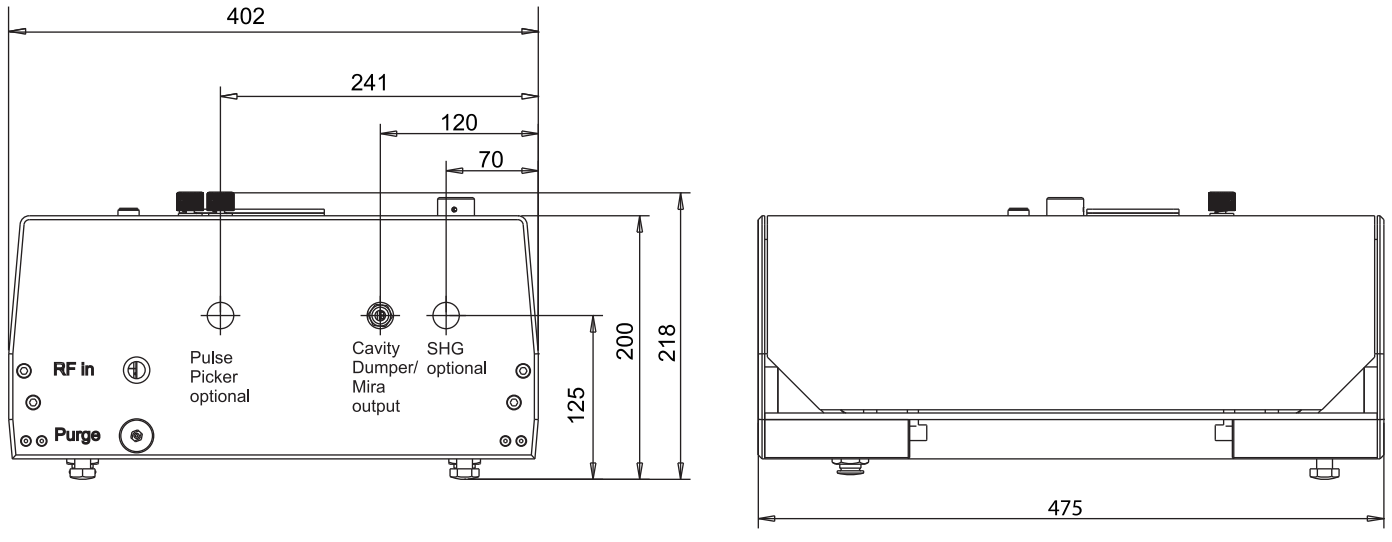
SPECIFICATIONS

Wavelength (with Coherent Mira 900F)	710 … 980 nm for 8 W pumped Mira 710 … 900 nm for 5 W pumped Mira
Repetition rate	10 MHz ...200 Hz (internal divider) 3 MHz down to single shot (external trigger)
Pulse energy	40 nJ / pulse @ 500 kHz, 800 nm (typical >60 nJ)
Contrast ratio	>500 : 1 (for non-adjacent pulses) >300 : 1 (typical, for adjacent pulses)
Pulse duration	<150 fs @ 500 kHz, 800 nm (typical 120 fs)
Spatial Mode	TEM00
Polarization	horizontal
Beam quality (typical values)	
- M^2	1.15
- beam diameter ($1/e^2$)	1.1 mm at exit port
- beam divergence (full angle)	1.4 mrad

OPTIONS

SHG (integrated)	
efficiency	35% @ 800 nm, 40 nJ (typ. 45%)
Pulse Picker	
efficiency	50% @ 800 nm, 4 MHz (typ. 60%)

DIMENSIONS (in mm)



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