

Blade Programmable Shutters

Warning: these programmable shutters are operated in normal incidence. They are not beam dump and are not designed to be used as safety shutters. Their damage threshold is also limited. Thus their use should be restricted to low laser fluence applications or to imaging and microscopy applications for which they particularly well perform. Ask for our safety shutters data sheet if needed.

Mechanical Design: these shutters are available in F-C video, C-mounts or with adapters for most microscopes (Nikon, Olympus, Zeiss...).

LS Series provides active aperture from 2 to 6mm and the shortest switching speed, allowing repetition rate of up to 400 Hz. It can be used with low power lasers (up to 5W / mm²) as a pulse picker or for medium speed modulation and holography.

VS14 and VS25 models (14 and 25mm aperture) are well adapted to exposure time control (photography, microscopy, video imaging, photomultipliers protection...).

VS35 and VS45 models (35 and 45mm aperture) offer the largest aperture and are mainly used in video applications (and microscopy for the 35 mm model).

Blades selection Standard blades are in black Teflon but other blades are available on request such as BeCu, AISiO or AlMgF2 depending on required reflectivity and damage threshold.

Drivers The proposed drivers are designed for optimum performance of the shutters. Up to 24 shutters can be controlled from a single driver. BNC or RS232 input are offered as well as control software to make shutter integration easier.

Custom solutions On request, we can work on your specific requirements (X-rays, size, switching speed ...), please contact us for details.



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Specifications	LS2	LS3	LS6	VS14	VS25	VS35	VS45
Aperture (mm)	2	3	6	14	25	35	45
Max repetition rate (Hz)	400	200	150	40	40	5	2
Max.optical power density (W/mm2)*							
UV (300 -400 nm)	2.5	2.5	2.5	5	5	5	NA
Visible (400 - 750 nm)	5	5	5	10	10	10	NA
IR (750 nm - 10.6 nm)	2.5	2.5	2.5	10	5	5	NA
Coil Resistance (Ohms)	48	48	48	12	12	12	12
Typical opening voltage (VDC)	65	65	65	65	65	70	70
Voltage holding typical (VDC)	10	10	10	5	5	7	7
Weight with package (kg)	0.11	0.12	0.12	0.29	0.29	0.41	NA
Number of Blades	1	2	2	2	2	2	2
Dimensions	Model dependent, please contact us for details						
Inductive delay (ms) **	0.7	1	1	2	3	5	6
Rise Time (ms)	0.3	0.5	0.7	1.5	3	13	24
Minimum hlding time (ms)	0.7	0.8	0.8	2	2	5	6
Fall time (ms)	0.5	0.6	0.8	3	5	12	18
Minimum pulse width FWHM (ms)	1.1	1.5	1.5	4.5	6	20	26

Depends on blades material and coating, contact us for details

*** Inductive delay is the delay between the input triggering signal and the beginning of blades displacement. Holding time is the minimum required time in the « active » position. Rated timing values assume the use of our own drivers, factory matched with the selected shutter.*

Drivers : contact us for details on available drivers.

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