

MOTORIZED BEAM EXPANDER

S6EZMO94O-574

Introducing our Motorized Beam Expander – the ultimate solution for automation, flexible laser processing, and versatile focal sizes in your machining system. With our cutting-edge technology, we provide a state-of-the-art solution that caters to your expanding needs. Our **Motorized Beam Expanders are specifically designed to precisely and efficiently increase or decrease the beam diameter.**

By maintaining a constant product of beam diameter and divergence, our expanders ensure optimal beam quality throughout the entire laser processing procedure. Whether you require fixed expansion or variable magnification with our zoom expanders, we have the perfect solution for you.

Our beam expanders are built using **fused silica** as the primary material for all optical elements, ensuring exceptional stability and reliability even under high average power or intense laser conditions. The standard product includes a low absorption coating, specially designed to handle the high-power density at the entrance lens element. To accommodate various requirements, we offer a **wide range of beam expanders** with different functionalities. From fixed magnification options suitable for large beam diameters to compact expanders

with fixed magnification, we have the perfect solution for every application. Additionally, our **motorized divergence adjustment feature allows for seamless adaptability and fine-tuning** without the need to open your setup for adjustment.

For those seeking ultimate versatility, our motorized variable magnification beam expanders are the ideal choice. With the ability to adjust both magnification and divergence, you have complete control over the focal size and precision of your laser processing. Experience the power of automation and flexibility with our Motorized Beam Expanders.



OPTICAL

article number	S6EZM0940-574
magnification range	0.9-4x
clear input aperture	Ø 12 mm
clear output aperture	Ø 28 mm
optical element number	4
moving optical element number	2
LIDT coating	0,3 J/cm ² , ∞-on-1 @1ps, 100 Hz
pointing stability during lens movement	<0.2mrad
adjustment time MIN to MAX magnification and divergence	<1sec
wavelength	355 nm
lens position accuracy	+/-30 µm

MECHANICAL

mechanical dimensions	53 x 53 x185 mm
housing material	anodized aluminum

ELECTRONICAL

communication	using ASCII commands described in manual
absolute encoder	integrated on both moving lenses
software interface	motorized beam expander software
input voltage	DC 12 V
control interface	USB, RS232
controller	integrated, with reverse polarity and overcurrent protection

CONDITIONS

operating temperature, Celsius	10 to 40
mounting holes	M4 on the bottom side