

Fixed ratio beam expanders FEX



Fixed ratio beam expanders FEX series are used to increase the laser beam diameter. The FEX model diversity cover the UV, visible and NIR spectral ranges. These compact beam expanders are designed for required wavelength and have divergence adjustability.

All optical elements of beam expanders are made of fused silica with high LIDT coatings and provide a stable and reliable performance even using them with high power lasers.

Main features

- Divergence adjustment
- Galilean optical design
- UVFS optical elements
- Grease free mechanical design
- Wide wavelength adoption - 200 nm to 2 μm

Application examples

- Laser material processing
- Medical
- Research

Standard specifications

FIXED RATIO BEAM EXPANDER SPECIFICATIONS	
Clear output aperture	23 mm
Divergence	Adjustable
Outer Diameter	30 mm
Mounting options	SM1 (male, female), ø30 mm
Transmission	>98%
LIDT	3 J/cm ² (10 ns @ 355nm)
	5 J/cm ² (10 ns @ 532 nm)
	10 J/cm ² (10 ns @ 1064 nm)

*Custom design available

Standard products

ITEM MODEL	EXPANSION	CLEAR INPUT APERTURE	RECOMMENDED MAX. INPUT BEAM SIZE, 1/E ²	CLEAR OUTPUT APERTURE	MECHANICAL LENGTH	WAVELENGTH	SKU	PRICE
FEX-2	2 x	11,5 mm	ø7 mm	23 mm	65 mm	343-355 nm	7723	199 €
						515-532 nm	7725	189 €
						1030-1064 nm	7727	189 €
						1030-1064 + 515-532 nm	11169	229 €
FEX-3	3 x	11,5 mm	ø5,3 mm	23 mm	65 mm	343-355 nm	7733	199 €
						515-532 nm	7731	189 €
						1030-1064 nm	7729	189 €
						1030-1064 + 515-532 nm	11170	229 €
FEX-4	4 x	11,5 mm	ø4 mm	23 mm	90 mm	343-355 nm	7735	199 €
						515-532 nm	7737	189 €
						1030-1064 nm	7739	189 €
						1030-1064 + 515-532 nm	11171	229 €
FEX-5	5 x	11,5 mm	ø3,2 mm	23 mm	95 mm	343-355 nm	7741	199 €
						515-532 nm	7743	189 €
						1030-1064 nm	7746	189 €
						1030-1064 + 515-532 nm	11172	229 €
FEX-8	8 x	7 mm	ø2 mm	23 mm	104 mm	343-355 nm	7749	209 €
						515-532 nm	7752	199 €
						1030-1064 nm	7754	199 €
						1030-1064 + 515-532 nm	11173	239 €

Mounting accessories for fixed ratio beam expanders FEX

RECOMMENDED ACCESSORY	FOR BEAM HEIGHT OF	SKU	PRICE
Adapter SM1 male to M30 X 1 male	-	9338	24 €
Adapter SM1 female to C-mount	-	9339	24 €
Adapter SM1 female to M30 X 1 male	-	9340	24 €
X-Y adjustable (3 adjusters) kinematic mount with post holder	50,8 mm [2"]	9341	135 €
X-Y adjustable (3 adjusters) kinematic mount with post holder	76,2 - 100 mm [3" - 4"]	9342	140 €