

Optical Accessories for Lepton IV Series



Features

- **Designed for diode lasers**
- **Coated for diode laser wavelength regions**
- **Small sizes for diode usage**

Many times one would like to expand a diode laser beam or focus it down to micron or sub-micron spot sizes. Other times one needs to control the polarization, attenuate the beam or combine/separate wavelengths.

We have designed a series of beam expanders with large input aperture and expansions of ~3X, 4X and 8X.

We also have singlet lenses in a range of focal lengths and coated for diode laser operating wavelengths. They can be used for focusing and for OEM users, fit in the aperture of the Lepton IV laser head. They are an inexpensive way to generate a small spot in a compact package.

For micron to submicron spots we offer standard and long working distance objectives. Long working distance objectives give plenty of room for other optics or probes to be inserted between objective and sample. Since our diode laser are diffraction limited with high output powers, they

generate very high power densities at the focused spot.

Optical isolators are sometimes required to prevent back-reflections from upsetting or destroying a diode laser. They are available for many of the wavelengths.

Many other optical elements such as attenuators, linear, circular and radial polarizers, waveplates are available.



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Optical Accessories

Beam Expanders

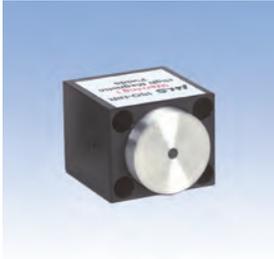
Model #	Expansion	Input Aperture	Output Aperture
EX3-λ	2.7X	6mm	16mm
EX4-λ	4.1X	6mm	23mm
EX8-λ	7.6X	6mm	45mm

Use "-VIS" for λ = 375nm to 600nm

Use "-NIR" for λ = 600nm to 1000nm

Use "-IR" for λ = 1000nm to 1700nm

Optical Isolators



Model #	Description
ISOVIS	Isolator for red (635-700nm) lasers
ISONIR	Isolator for NIR (700-900nm) lasers
ISOY	Isolator for YAG (980-1064nm) lasers
ISOIR	Isolator for IR (1310-1550nm) lasers

Focusing Objectives:

Infinity corrected, long working distance (M.Plain APO) 400nm to 1600nm



Thread is 0.796" dia. x 36 TPI.



Model #	Description
OBJ5XLWD	WD=36.1mm, F=40.0mm
OBJ10XLWD	WD=38.9mm, F=20.0mm
OBJ20XLWD	WD=22.2mm, F=10.0mm
OBJ50XLWD	WD=18.3mm, F=4.0mm
L4OBJ	Objective adapter

Focusing Lenses



These lenses are installed into the body of the Lepton IV module.

Model #	Description
FF25-λ	F = 25.4mm
FF50-λ	F = 50.8mm
FF75-λ	F = 75.6mm
FF100-λ	F = 100mm
FF150-λ	F = 150mm
FF250-λ	F = 250mm
FF300-λ	F = 300mm
FF500-λ	F = 500mm

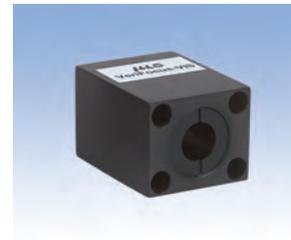
Use "VIS" for λ = 375nm to 600nm

Use "NIR" for λ = 600nm to 1000nm

Use "IR" for λ = 1000nm to 1700nm

Other focal lengths are available.

VariFocus Module



Adjustable focus lens module designed to keep the focus diffraction limited about a 1 meter distance. Excellent for inspection of food or other items on conveyor belts.

Other focusing modules at greater distances can be manufactured on a custom basis.

ZPol and Speckle Reduces

See brochures on these products.



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