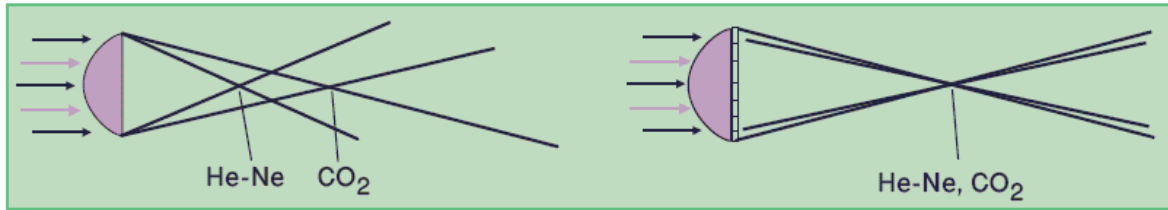


## 633/10600nm Dual Wavelength lens

### Preliminary Datasheet

Fig 1. Typical Optical Scheme



Performance of regular ZnSe lens in dual-wavelength beam of CO<sub>2</sub> and HeNe lasers

#### Features:

- High Damage Threshold
- Low Back Reflection
- High Efficiency
- Pure ZnSe
- Accepts any beamshape
- Custom Diameters and focal lengths possible
- Ar/Ar coated for both wavelengths

#### Applications:

- Surgical Laser Systems
- Industrial CO<sub>2</sub> Laser Systems

Dual Wavelength elements come to correct for the chromatic aberrations that from an intense problem in dual wavelength designs where one wavelength is much larger than the other wavelength.

The element has the shape on a regular Plano/Convex lens, just that on the Plano surface a diffractive pattern comes to correct for the chromatic aberration as can be seen in attached conceptual set-up.

A typical application includes laser pointing in surgical or industrial laser systems. Without correcting for this aberration the red laser can point on a different position, or over a different area than where the infrared laser will hit the tissue, object or surface.

Holo-Or can offer similar elements at other diameters and focal lengths.

#### General specifications

<b>Part-Number</b>	<b>DW-0.75-20</b>	
<b>Coating</b>	Ar/Ar Coated	
<b>Transmission Efficiency:</b>	~99%@10.6um	~98%@632nm
<b>Design Efficiency</b>	~98%@10.6um	~75%@632nm
<b>Zero Order</b>		~5%
<b>Diameter</b>	¾ +0/-0.004 Inch	
<b>Damage Threshold</b>	Expected to be > 2kW (Not measured yet)	
<b>Lay-Out</b>	Plano / Convex	
<b>Clear Aperture</b>	17mm for 10.6um	10mm for 633nm



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