

## Infrared Filters

### Product Description:

We offers a variety of infrared (IR) filters including IR narrow bandpass filters, IR wide bandpass filters, long-wave pass filters and other custom filters. The substrate could be silicon or Germanium. It covering 1um to 40 um. The infrared filters are widely used in environmental monitoring, temperature sensing and thermal imaging.



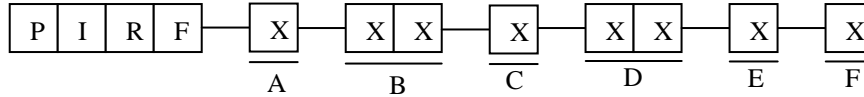
### Specifications (Silicon or Germanium from mid-infrared to long infrared):

Substrate	Silicon or Germanium
Dimensional Tolerance	$\pm 0.1\text{mm}$
Parallelism	$<3$ arc minutes
Clear Aperture	$>85\%$
Flatness	$\lambda/2$ @ 632.8nm
Surface Quality	60~40
Wavefront Distortion	$\lambda/2$ @ 632.8nm
Protective Bevel	$<0.3\text{mm} \times 45^\circ$

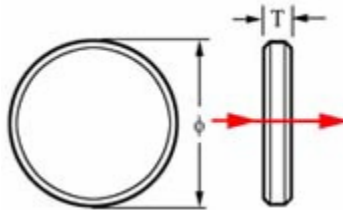
### Specifications (BK7 for near-infrared):

Substrate	BK7
Dimensional Tolerance	$\pm 0.1\text{mm}$
Parallelism	$<1$ arc minutes
Clear Aperture	$>85\%$
Flatness	$\lambda/4$ @ 632.8nm
Surface Quality	40~20
Wavefront Distortion	$\lambda/4$ @ 632.8nm
Protective Bevel	$<0.3\text{mm} \times 45^\circ$

## Ordering Information:



<b>A</b>	<b>Filter Type</b>	<b>01 = IR wide bandpass filters</b>
		<b>02 = IR narrow bandpass filters</b>
		<b>00=Special</b>
<b>B</b>	<b>Transmission Region</b>	<b>01 = 2.8 um ~ 4.0um for wide bandpass filter</b>
		<b>Check standard transmission region for part number</b>
		<b>00=Special</b>
<b>C</b>	<b>Materials</b>	<b>1 = Silicon</b>
		<b>2 = Germanium</b>
		<b>3 = BK7</b>
		<b>0=Special</b>
<b>D</b>	<b>Dimensions</b>	<b>00=Custom Size</b>
<b>E</b>	<b>Shape</b>	<b>1=Circular</b>
		<b>2=Rectangular</b>
<b>F</b>	<b>Mount</b>	<b>1=Yes</b>
		<b>0=No</b>



## Transmission Region Table (IR wide bandpass filters):

Wide bandpass filter P/N	Cut off wavelength (um)	Transmission region (um)	Average Transmittance (%)
01	2.5	2.8 ~ 4.0	> 80
02	3.0	3.3 ~ 5.0	> 80
03	4.0	4.3 ~ 6.0	> 80
04	5.0	5.3 ~ 14.0	> 80
05	8.0	8.5 ~ 14.0	> 80
06	14.0	14.5 ~ 20.0	> 80

## Transmission Region Table (IR Narrow bandpass filters):

Narrow bandpass filter (P/N)	Central wavelength (um)	Half bandwidth (nm)	Average Transmittance (%)
01	1.80	50	> 70

02	1.94	50	> 75
03	2.10	60	> 75
04	2.18	60	> 75
05	2.32	70	> 75
06	2.70	80	> 75
07	2.70	300	> 80
08	3.35	200	> 75
09	3.47	220	> 75
10	3.90	170	> 70
11	4.26	180	> 70
12	4.65	190	> 70
13	5.05	220	> 70
14	5.35	240	> 75
15	7.35	200	> 75
16	10.55	1100	> 70
17	10.60	400	> 75
18	15.0	1800	> 70