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50.8mm Dia., 1mm Thick, Uncoated, ISP Optics Zinc Selenide (ZnSe) Window | ZC-W-50-1

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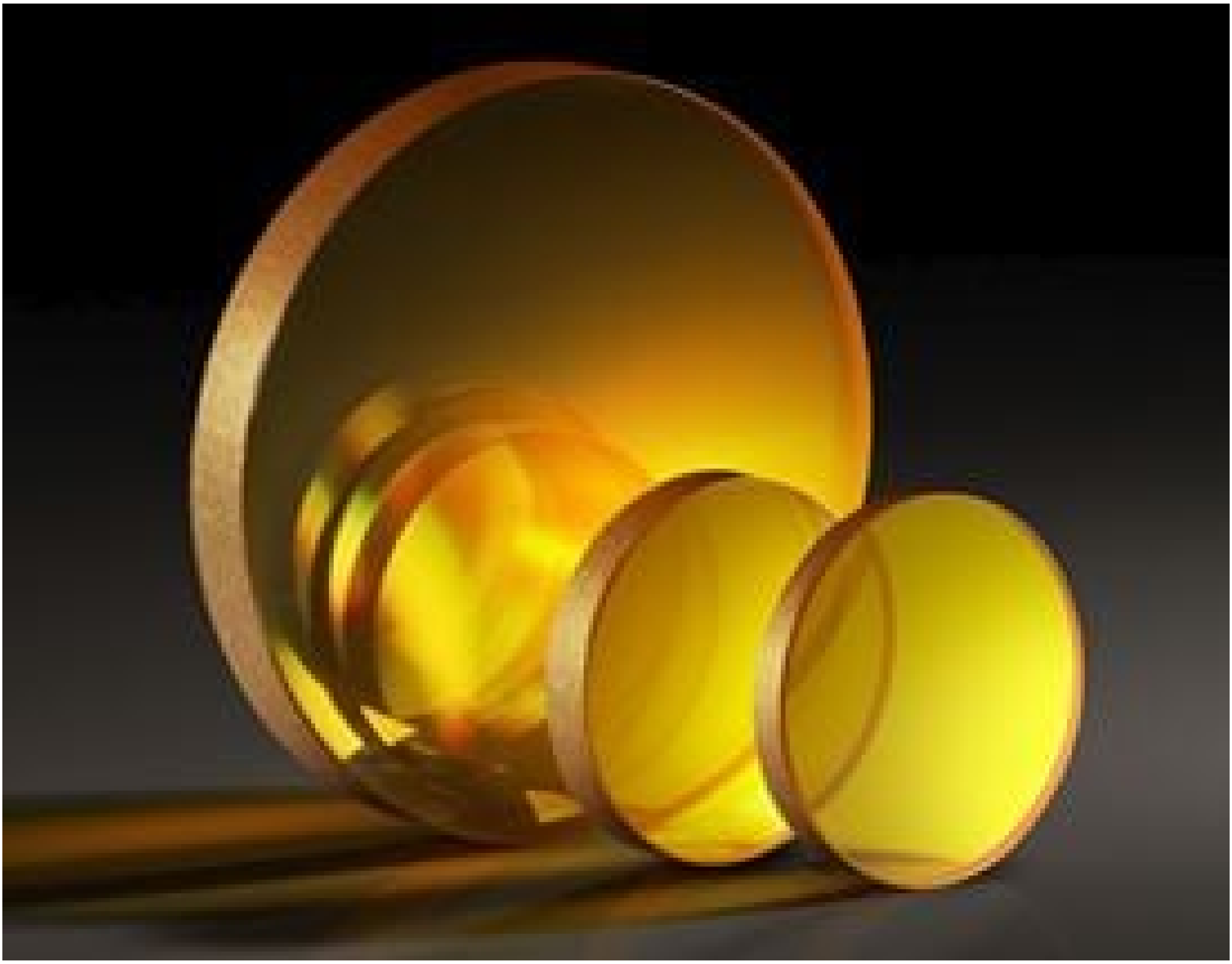

Stock **#24-658** CLEARANCE **5 In Stock**

- 1 + C$522.20

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General

Model Number:	ZC-W-50-1
Type:	Protective Window
Type of Window:	Crystal

Physical & Mechanical Properties

Clear Aperture CA (mm):
43.18

Diameter (mm):
50.80 +0.00/-0.13

Thickness (mm):
1.00 ±0.13

Parallelism (arcmin):
<3

Bevel:
Protective as needed

Clear Aperture (%):
85

Edges:
Fine Ground

Poisson's Ratio:
0.28

Young's Modulus (GPa):
67.2

Knoop Hardness (kg/mm^2):
120.00

Optical Properties

Coating:
Uncoated

Substrate:
Zinc Selenide (ZnSe)

Index of Refraction (n_d):
2.631

Surface Quality:
60-40

Wavelength Range (nm):
600 - 18000

Surface Flatness (P-V):
λ/20 @ 10.6µm

Material Properties

Density (g/cm^3):
5.27

Coefficient of Thermal Expansion CTE (10^{-6}/°C):
7.57

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 240:
Compliant

Product Details

- Low Dispersion and Absorption from 0.6 – 18µm
- High Resistance to Thermal Shock
- Ideal for Thermal Imaging, FLIR, and Medical Systems

ISP Optics Zinc Selenide (ZnSe) Windows feature low absorption and low dispersion across a wide wavelength range from the visible to the infrared spectrum. This makes Zinc Selenide ideal for a wide array of infrared applications including thermal imaging, FLIR, and medical systems. Zinc Selenide (ZnSe) is a relatively soft material that scratches easily and it is not recommended in harsh environments because its Knoop Hardness is only 120. ISP Optics Zinc Selenide (ZnSe) Windows are particularly useful for 10.6µm CO2 laser applications, due to its low absorption. These windows are available uncoated or with Broadband Anti-Reflection (BBAR) coating options for 2 - 13µm or 8 - 12µm for increased transmission.

Note: Special care should be taken when handling Zinc Selenide as it is a toxic material. Always wear rubber or plastic gloves to avoid risk of contamination.

Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality. Explore our **Optics Cleaning Resources** for step-by-step guides and best practices. For personalized assistance, **Email us** or **Chat** with our technical support team.

Component Handling Tools

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