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## 25.4mm Diameter, 19.1mm Through Hole, Sapphire Window



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Stock #17-212 **20+ In Stock**

⊖ 1 ⊕ €133<sup>00</sup>

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### Volume Pricing

Qty 1-5	€133,00 each
Qty 6-25	€114,00 each
Qty 26-49	€113,00 each
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ⓘ Prices shown are exclusive of VAT/local taxes

### Product Downloads

#### General

Type:  
Protective Window

Type of Window:  
Crystal

#### Physical & Mechanical Properties

Diameter (mm):

25.40 ±0.127

**Thickness (mm):**

1.00 ±0.127

**Parallelism (arcmin):**

≤3.5

**Bevel:**

Protective as needed

**Poisson's Ratio:**

0.27

**Young's Modulus (GPa):**

435

**Knoop Hardness (kg/mm<sup>2</sup>):**

1,900.00

**Through Hole Diameter (mm):**

19.10 ±0.127

## Optical Properties

**Coating:**

Uncoated

**Substrate:**

Sapphire (Al<sub>2</sub>O<sub>3</sub>)

**Index of Refraction (n<sub>d</sub>):**

1.77

**Surface Quality:**

80-50

**Abbe Number (v<sub>d</sub>):**

72.24

**Surface Roughness (μm):**

0.1 per Inch

**Birefringence (n<sub>o</sub>-n<sub>e</sub>):**

0.008 for Visible Light Orthogonal to Optical Axis

**Axis Orientation:**

Random

**Wavelength Range (nm):**

330 - 5500

**Surface Flatness (P-V):**

2λ (typical)

## Material Properties

**Density (g/cm<sup>3</sup>):**

3.97

**Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):**

8.8

## Regulatory Compliance

**RoHS 2015:**

[Compliant](#)

**Certificate of Conformance:**

[View](#)

**Reach 247:**

[Compliant](#)

## Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- 25.4mm Diameter Sapphire Substrates
- 3.2 - 19.1mm Through Hole Diameters
- High Transmission From 0.33 - 5.5μm

Sapphire Windows with Through Holes, also referred to as sapphire washers, feature 25.4mm diameter sapphire substrates with a centered through hole ranging in diameter from 3.2 - 19.1mm. Sapphire offers extreme surface hardness second only to [diamond](#), high thermal conductivity, and is chemically inert, making it ideal for use in harsh environments. These windows provide high transmission from 0.33 - 5.5μm and can be made much thinner than glass windows due to the structural strength of sapphire. Sapphire Windows with Through Holes can be manufactured as modified standard versions of our [sapphire windows](#) or as entirely custom products; please contact us to discuss your application requirements.

