

Basler Lens C11-1620-12M-P

Basler Premium **C-mount lens** with a fixed focal length of 16 mm, aperture range from F2.0–F16, and a resolution of 12 MP.



Key Features

- Fits all Basler cameras with a sensor size of up to 1.1"
- Basler Premium Lens
- Metal housing
- C-mount
- Locking screws for iris and focus
- High contrast

 **Info**

The technical data shown in the following sections are nominal design values. The real values of the delivered products can deviate from the nominal design values.

General Specifications

| | C11-1620-12M-P |
|----------------------------------------|-----------------------|
| Order Number | 2200000576 |
| Focal Length f' | 16.36 mm \pm 5 % |
| Aperture Range | F2.0–F16 |
| Aperture with Highest Resolution | F2.3 |
| Image Circle | 17.6 mm (1.1" format) |
| Focus Range | 0.1 m to infinity |
| Optimum Working Distance | 0.4 m |
| Relative Illumination at Full Aperture | 59 % |

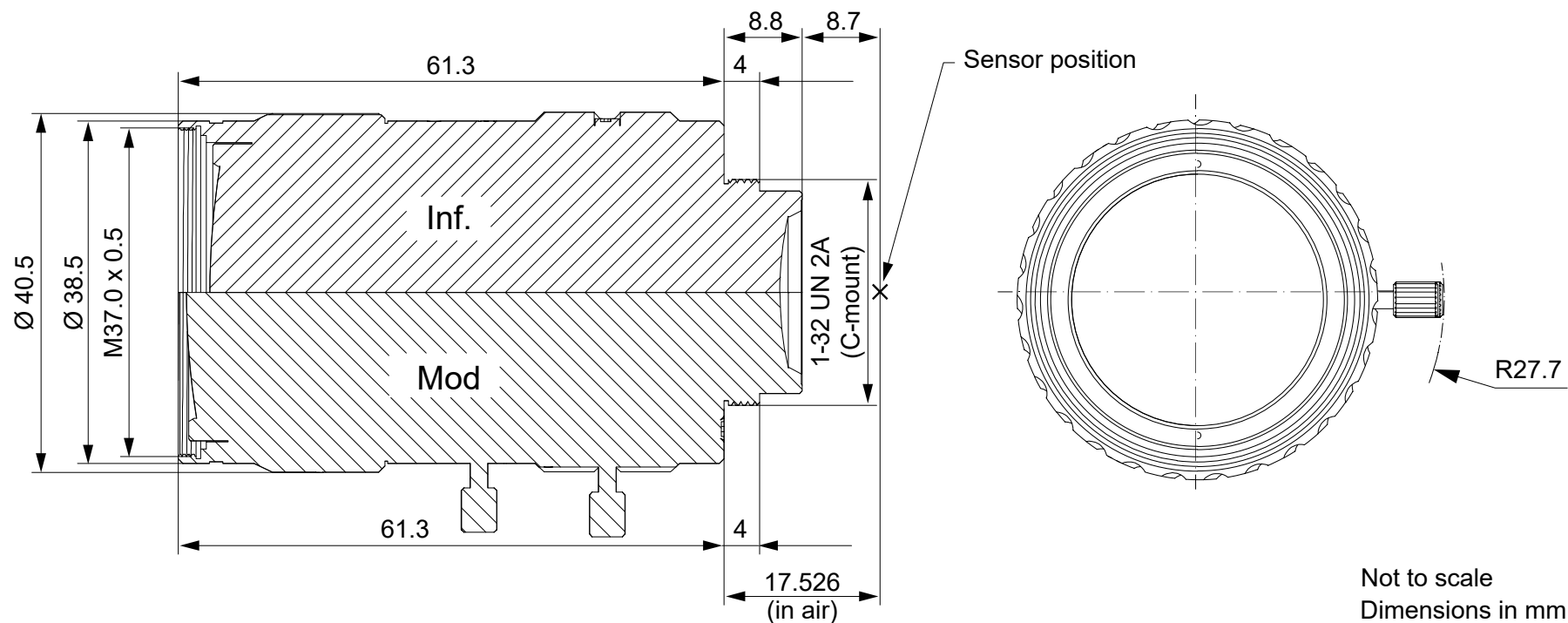
| | C11-1620-12M-P |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Resolution | Designed for 140 LP/mm (3.57 μm pixel size, see Resolution versus Image Height) |
| MTF Measured in the Center at 90 LP/mm / 140 LP/mm (conditions: F2.0, polychromatic, 0.45 m working distance) | 0.64 / 0.44 |
| MTF Measured in the Corner at 90 LP/mm / 140 LP/mm (conditions: F2.0, polychromatic, 0.45 m working distance) | 0.52 / 0.33 |
| Optical Distortion | Typical -3.26 % |
| Angle of View, 1" Format | Horizontal: 43.6° Vertical: 33.4° |
| Angle of View, 1.1" Format | Horizontal: 47.9° Vertical: 36.0° |
| Wavelength Range | Visible (400–700 nm) |
| Back Focal Length, s'_F | 11.22 mm |

→ See [Terminology \(Basler Lenses\)](#).

Mechanical Specifications

| | C11-1620-12M-P |
|----------------------|-----------------|
| Flange Back | 17.526 mm |
| Mount | C-mount |
| Weight | Approx. 200.4 g |
| Focus/Iris Operation | Manual |

Lens Dimensions



→ Download the [CAD/technical drawing for your Basler Lens](#).

Environmental Requirements

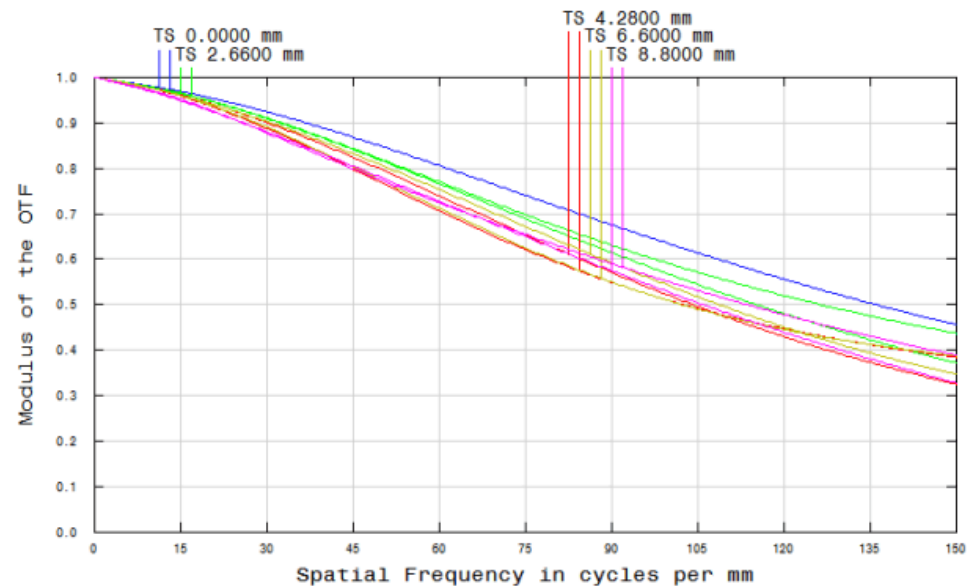
| | |
|------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Temperature During Operation | -20–60 °C (-4–140 °F) (For best results, adjust the focus when a steady operating temperature has been reached.) |
|------------------------------|---------------------------------------------------------------------------------------------------------------------|

| | |
|----------------------------|-------------------------------------------|
| Humidity During Operation | 10–90 % relative humidity, non-condensing |
| Temperature During Storage | -20–60 °C (-4–140 °F) |

Performance Chart

Resolution versus Image Height

Conditions: $f/2.0$, polychromatic, 0.45 m working distance



Precautions, Mounting, and Cleaning (Basler Lenses)

→ See [Precautions, Mounting, and Cleaning \(Basler Lenses\)](#).