

# Technical Specification Sheet - M12 Telephoto Lens for reCamera 2002

## 1. Product Identification and Overview

### Product Name:

M12 Telephoto Lens for reCamera 2002 - 5MP, 20°

SKU: 1000953425

### General Description:

This is a high-resolution, 5-megapixel (5MP) telephoto lens featuring a 16mm focal length. Engineered for precision imaging, the lens incorporates IR correction (Day/Night confocal) to support focus stability across visible and infrared spectrums.

### Component Visual:

The unit is a compact, black-finished lens assembly with a standard M12 thread and marked 16mm IR optical configuration.



## 2. Optical Specifications

The following table details the core optical performance parameters for the 1000953425.

Optical Performance Parameters

| Parameter                          | Specification                                |
|------------------------------------|----------------------------------------------|
| Focal Length                       | 16mm                                         |
| Aperture (D/f)                     | F2.0                                         |
| Resolution                         | 5MP                                          |
| Image Circle                       | 1/2"                                         |
| Optical Distortion                 | 0.244% @1/2"; 0.241% @1/2.5"; 0.160% @1/3.6" |
| Chief Ray Angle (CRA)              | ≤17.33°                                      |
| IR Correction                      | Yes (Day/Night Confocal)                     |
| Back Focal Length (BFL)            | 5.75mm (in air)                              |
| Mechanical Back Focal Length (MBF) | 5.1mm (in air)                               |

## 3. Field of View (FOV) Matrix

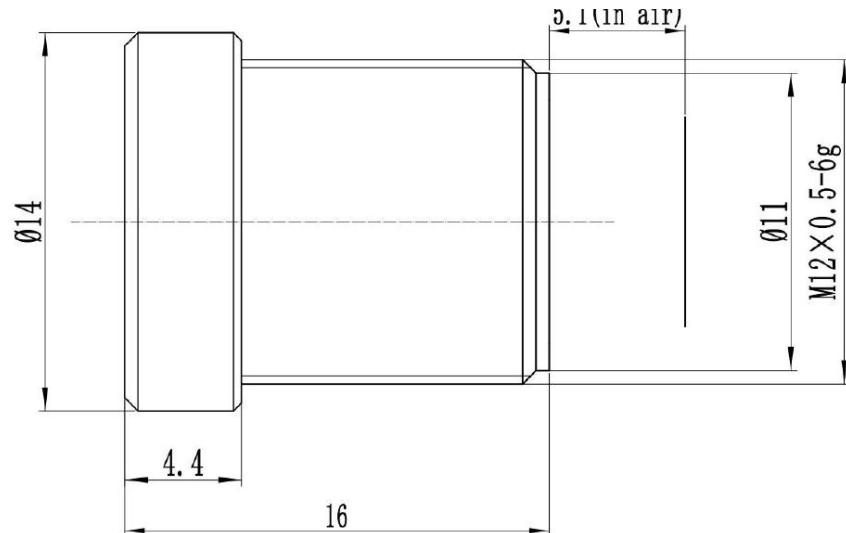
Field angles are dependent on the sensor format utilized. The reCamera 2002 value is based on the GC2053 active area and a 16mm low-distortion lens model.

| Sensor Format | Diagonal (D) | Horizontal (H) | Vertical (V) |
|---------------|--------------|----------------|--------------|
| 1/2" Sensor   | 28.9°        | 23.3°          | 17.6°        |
| 1/2.5" Sensor | 26.1°        | 24.7°          | 15.8°        |
| 1/3.6" Sensor | 18.3°        | 14.7°          | 11.1°        |

## 4. Mechanical and Physical Specifications

### Mechanical Properties

- Mount: M12
- Weight: 5g
- Minimum Object Distance (M.O.D.): 0.3m
- Dimensions: Φ14mm × 16mm



## Manufacturing Tolerances

- Size Tolerances: 0-10mm  $\pm 0.05$ mm, 10-30mm  $\pm 0.10$ mm, 30-120mm  $\pm 0.20$ mm
- Angle Tolerance:  $\pm 2^\circ$

## 5. Operation and Environmental Limits

### Operation Modes

- Iris: Fixed

### Temperature Ranges

- Operating Temperature:  $-20^\circ\text{C}$  to  $+60^\circ\text{C}$

## 6. Regulatory Compliance

Fully compliant with RoHS (HSF) standards for hazardous substance restriction.