

Technical data sheet

Lens

Part no.: 50148546

Lens S-M12-16F8

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For illustration purposes only

Technical data

Basic data

| | |
|--------------|-----------------------|
| Suitable for | IVS 1000i & DCR 1000i |
|--------------|-----------------------|

Optical data

| | |
|----------------------------|------------------|
| Working range | 200 ... 1,300 mm |
| Focal length | 16 mm |
| Lens mount | S-Mount |
| F-stop (F) | 8 |
| Diaphragm type | Fixed |
| Wavelength | 400 ... 950 nm |
| Resolution | 2 megapixel |
| Sensor size | 1 / 3" |
| Primary plane, object side | 14.84 mm |
| Primary plane, image side | 15.93 mm |
| Opening angle, object side | 21.3 ° |
| Opening angle, image side | 14.64 ° |

Mechanical data

| | |
|---------------|--------------|
| Design | Cylindrical |
| Thread size | M12 x 0.5 mm |
| Net weight | 5 g |
| Housing color | Black |

Environmental data

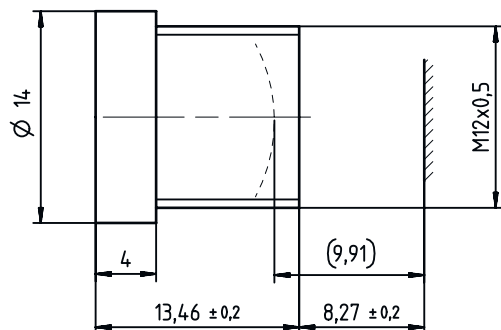
| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -20 ... 60 °C |
|--------------------------------|---------------|

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 90021900 |
| ECLASS 5.1.4 | 27310203 |
| ECLASS 8.0 | 27310203 |
| ECLASS 9.0 | 27310203 |
| ECLASS 10.0 | 27273603 |
| ECLASS 11.0 | 27273603 |
| ECLASS 12.0 | 27273603 |
| ECLASS 13.0 | 27273603 |
| ECLASS 14.0 | 27273603 |
| ECLASS 15.0 | 27273603 |
| ECLASS 16.0 | 27273603 |
| ETIM 5.0 | EC002498 |
| ETIM 6.0 | EC003015 |
| ETIM 7.0 | EC003015 |
| ETIM 8.0 | EC003015 |
| ETIM 9.0 | EC003015 |
| ETIM 10.0 | EC003015 |
| UNSPSC 26.08 | 31241501 |

Dimensioned drawings

All dimensions in millimeters



Diagrams

Depth of field and field of view

Diagrams

Depth of field

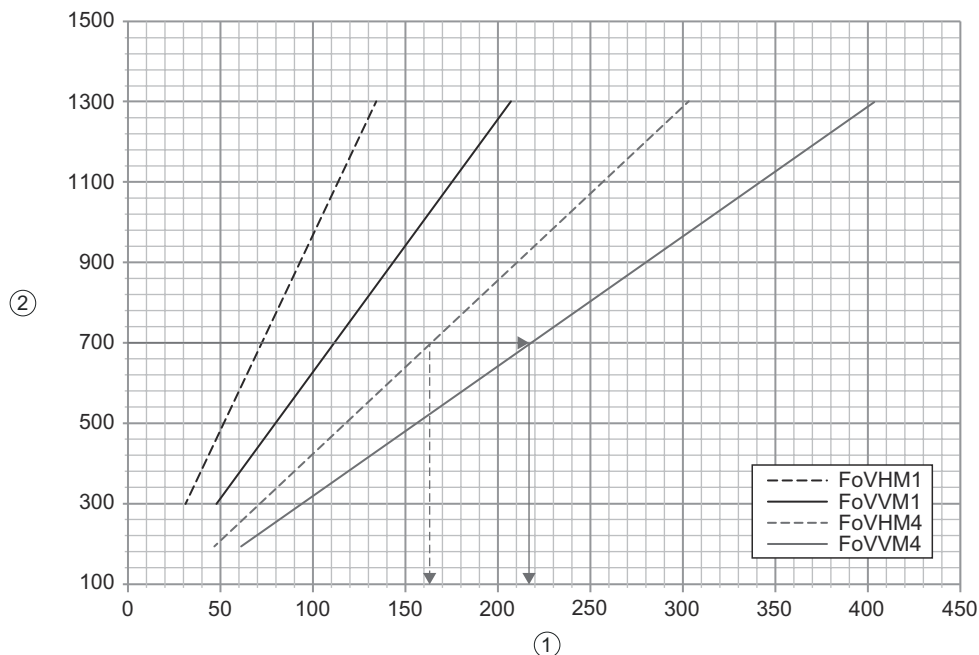
- F**
- A Working distance (WD) [mm]
 - B Short range
 - C Distant range
 - The depth of field (DoF) is the range within which the object can move away from or closer to the camera without going out of focus.
 - The depth of field depends on the lens aperture, the distance to the test object, the lens focal length and the pixel size of the camera.
 - Please note: During calculation, the double pixel size is used as the permissible blur.
- Example: The object should have a WD range of 618 to 846 mm.

Field of view (FoV)

| A | B | | C | |
|-------|------------------|------------------|------------------|------------------|
| | FoV _H | FoV _V | FoV _H | FoV _V |
| 200 | | | 62 | 46 |
| 300 | 47 | 31 | 93 | 69 |
| 400 | 63 | 41 | 124 | 93 |
| 500 | 79 | 52 | 155 | 116 |
| 600 | 95 | 62 | 186 | 139 |
| 700 | 111 | 72 | 217 | 163 |
| 800 | 127 | 83 | 248 | 186 |
| 900 | 143 | 93 | 279 | 209 |
| 1.000 | 158 | 103 | 310 | 232 |
| 1.100 | 174 | 114 | 341 | 256 |
| 1.200 | 190 | 124 | 372 | 279 |
| 1.300 | 206 | 134 | 403 | 302 |

- A Working distance (WD) [mm]
 - B Models with low resolution (-M1)
 - C Models with high resolution (-M4)
 - The field of view (FoV) is the range in which the sensor can capture its surroundings.
 - It depends on the size of the imager and its resolution, on the focal length of the lens and on the distance of the sensor to the object.
- Example: The FoV is 111 x 83 mm for devices with low resolution (-M1) and 217 x 163 mm for devices with high resolution (-M4).

Diagrams



- 1 Dimensions [mm]
- 2 Working distance (WD) [mm]

Modulus size [mm]

| A | B | C |
|-------|------|------|
| 200 | 0,1 | 0,15 |
| 300 | 0,15 | 0,2 |
| 400 | 0,2 | 0,25 |
| 500 | 0,2 | 0,3 |
| 600 | 0,25 | 0,4 |
| 700 | 0,3 | 0,45 |
| 800 | 0,35 | 0,5 |
| 900 | 0,4 | 0,55 |
| 1.000 | 0,45 | 0,6 |
| 1.100 | 0,45 | 0,7 |
| 1.200 | 0,5 | 0,75 |
| 1.300 | 0,55 | 0,8 |

- A Working distance (WD) [mm]
- B Bar codes
- C 2D-codes