

Technical data sheet

Lens

Part no.: 50148544

Lens S-M12-8F8

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For illustration purposes only

Technical data

Basic data

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

Optical data

| | |
|----------------------------|----------------|
| Working range | 100 ... 600 mm |
| Focal length | 8 mm |
| Lens mount | S-Mount |
| F-stop (F) | 8 |
| Diaphragm type | Fixed |
| Wavelength | 400 ... 950 nm |
| Resolution | 5 megapixel |
| Sensor size | 1 / 2.5" |
| Primary plane, object side | 9.29 mm |
| Primary plane, image side | 7.96 mm |
| Opening angle, object side | 21.5 ° |
| Opening angle, image side | 10.26 ° |

Mechanical data

| | |
|---------------|--------------|
| Design | Cylindrical |
| Thread size | M12 x 0.5 mm |
| Housing color | Black |

Environmental data

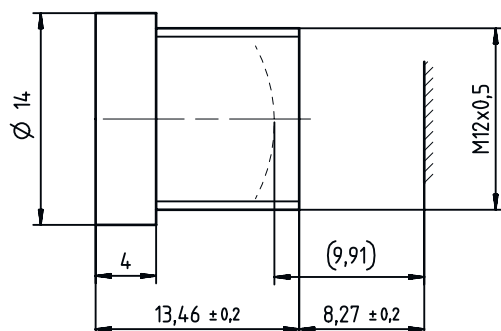
| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -20 ... 60 °C |
|--------------------------------|---------------|

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 |
| ETIM 5.0 | EC002498 |
| ETIM 6.0 | EC003015 |
| ETIM 7.0 | EC003015 |
| ETIM 8.0 | EC003015 |
| ETIM 9.0 | EC003015 |
| ETIM 10.0 | EC003015 |

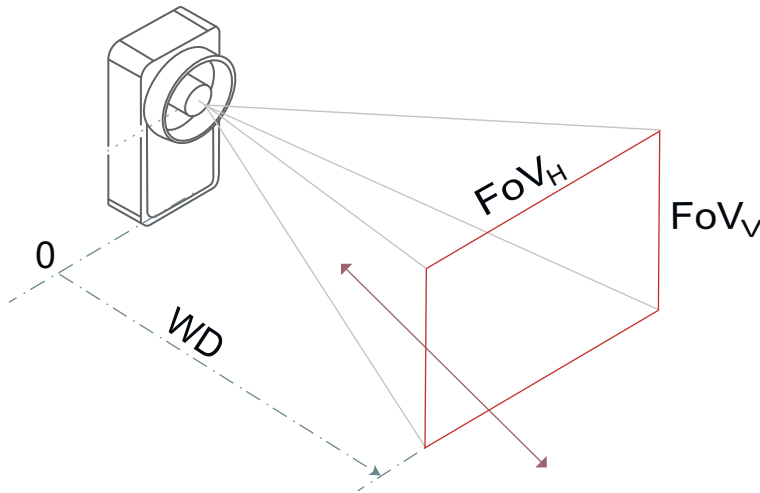
Dimensioned drawings

All dimensions in millimeters



Diagrams

Depth of field and field of view



Depth of field

| A | B | C |
|------------|------------|------------|
| 100 | 104 | 127 |
| 150 | 143 | 191 |
| 200 | 180 | 263 |
| 250 | 214 | 343 |
| 300 | 246 | 433 |
| 350 | 276 | 534 |
| 400 | 304 | 649 |
| 450 | 330 | 781 |
| 500 | 355 | 934 |
| 550 | 378 | 1.114 |
| 600 | 399 | 1.327 |

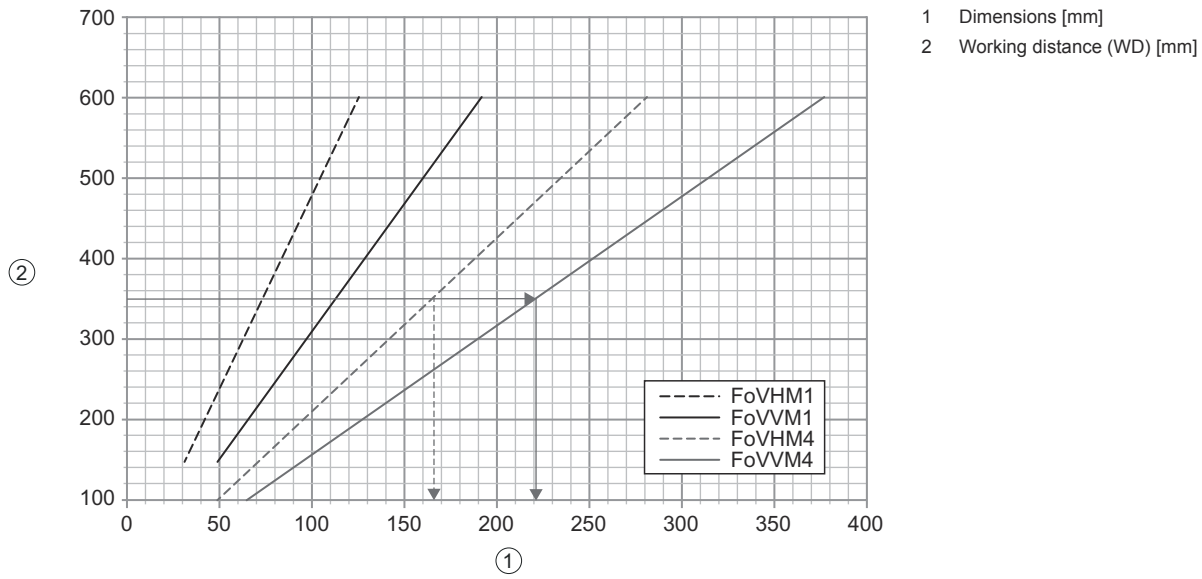
A Working distance (WD) [mm]
 B Short range
 C Distant range
 - The depth of field (DoF) is the range within which the object can move away from or closer to the camera without going out of focus. The depth of field depends on the lens aperture, the distance to the test object, the lens focal length 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 276 to 534 mm.
 WD = 350 mm

Field of view (FoV)

| A | B | | C | |
|------------|------------------|------------------|------------------|------------------|
| | FoV _H | FoV _V | FoV _H | FoV _V |
| 100 | | | 66 | 49 |
| 150 | 50 | 32 | 97 | 73 |
| 200 | 65 | 43 | 128 | 96 |
| 250 | 81 | 53 | 159 | 119 |
| 300 | 97 | 63 | 190 | 143 |
| 350 | 113 | 74 | 221 | 166 |
| 400 | 129 | 84 | 252 | 189 |
| 450 | 145 | 94 | 283 | 212 |
| 500 | 161 | 105 | 314 | 236 |
| 550 | 177 | 115 | 345 | 259 |
| 600 | 192 | 125 | 376 | 282 |

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 113 x 85 mm for devices with low resolution (-M1) and 221 x 166 mm for devices with high resolution (-M4).
 WD = 350 mm

Diagrams



Modulus size [mm]

| A | B | C |
|-----|------|------|
| 100 | 0,1 | 0,15 |
| 150 | 0,15 | 0,2 |
| 200 | 0,2 | 0,25 |
| 250 | 0,2 | 0,35 |
| 300 | 0,25 | 0,4 |
| 350 | 0,3 | 0,45 |
| 400 | 0,35 | 0,5 |
| 450 | 0,35 | 0,5 |
| 500 | 0,4 | 0,55 |
| 550 | 0,45 | 0,7 |
| 600 | 0,5 | 0,8 |

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