

## Technical data sheet

### Lens

Part no.: 50148547

Lens S-M12-25F4

#### Contents

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For illustration purposes only

# Technical data

## Basic data

Suitable for	IVS 1000i & DCR 1000i
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## Optical data

Working range	500 ... 2,000 mm
Focal length	25 mm
Lens mount	S-Mount
F-stop (F)	4
Diaphragm type	Fixed
Wavelength	400 ... 950 nm
Resolution	3 megapixel
Sensor size	1 / 2"
Primary plane, object side	19.66 mm
Primary plane, image side	24.88 mm
Opening angle, object side	9.3 °
Opening angle, image side	9.78 °

## Mechanical data

Design	Cylindrical
Thread size	M12 x 0.5 mm
Net weight	9 g
Housing color	Black

## Environmental data

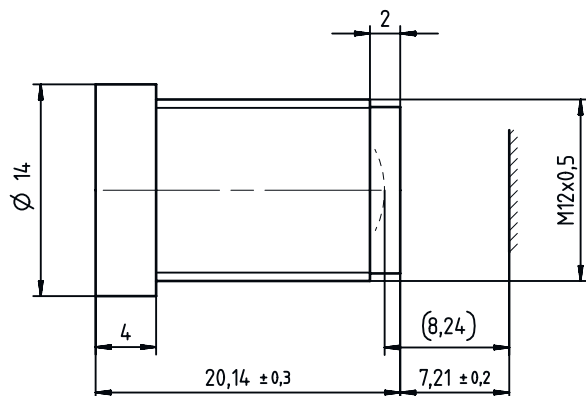
Ambient temperature, operation	-20 ... 60 °C
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## Classification

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

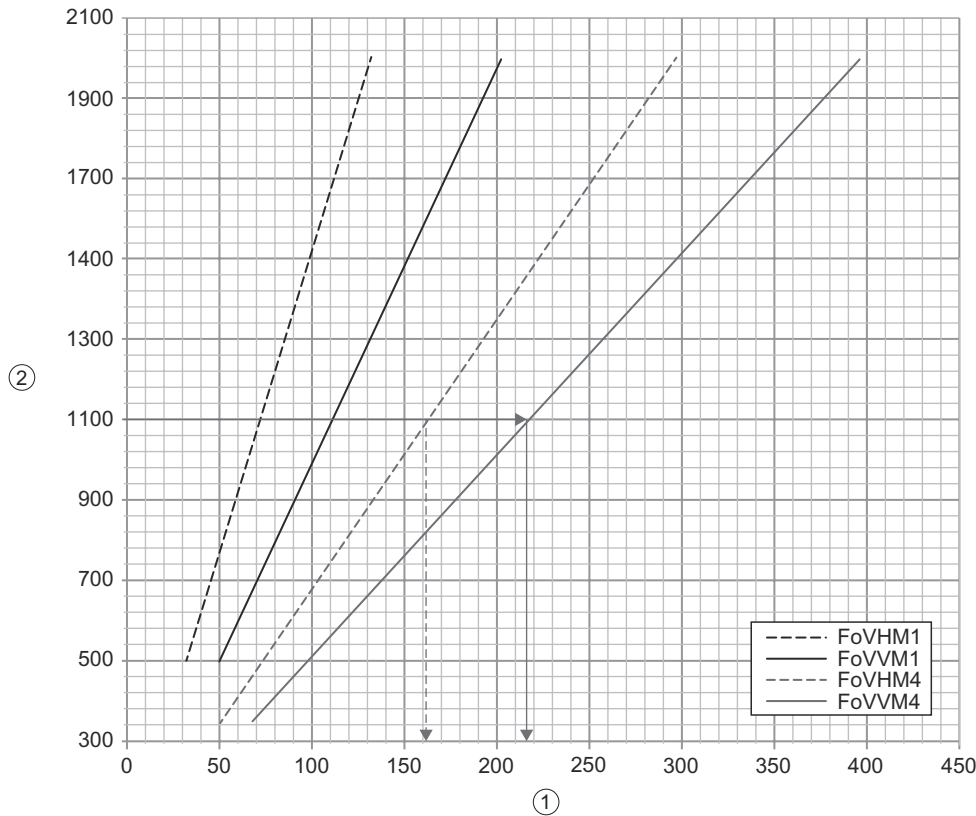
- F** A Working distance (WD) [mm]
- B Short range
- C Distant range
- The depth of field (DoF) is the range within which the object can move away from or closer to the camera without going out of focus.
- The depth of field depends on the lens aperture, the distance to the test object, the lens focal 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 1,061 mm to 1,173 mm.

## Field of view (FoV)

A	B		C	
	FoV <sub>H</sub>	FoV <sub>V</sub>	FoV <sub>H</sub>	FoV <sub>V</sub>
500	50	32	97	73
650	65	42	127	95
800	80	52	157	118
950	95	62	187	140
1.100	111	72	216	162
1.250	126	82	246	185
1.400	141	92	276	207
1.550	156	102	306	229
1.700	172	112	336	252
1.850	187	122	365	274
2.000	202	132	395	296

- 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 216 x 162 mm for devices with high resolution (-M4).

## Diagrams



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

## Modulus size [mm]

A	B	C
500	0,15	0,2
650	0,2	0,25
800	0,2	0,35
950	0,25	0,4
1.100	0,3	0,45
1.250	0,35	0,5
1.400	0,35	0,55
1.550	0,4	0,6
1.700	0,45	0,65
1.850	0,5	0,75
2.000	0,55	0,8

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