Technical data sheet
Lens
Part no.: 50148543
Lens S-M12-8F4

For Illustration purposes only

Contents

Technical data

Basic data

Suitable for	IVS 1000i & DCR 1000i

Optical data

Working range	150 ... 600 mm
Focal length	8 mm
Lens mount	S-Mount
F-stop (F)	4
Diaphragm type	Fixed
Wavelength	400 ... 950 nm
Resolution	1 megapixel
Sensor size	1 / 3"
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

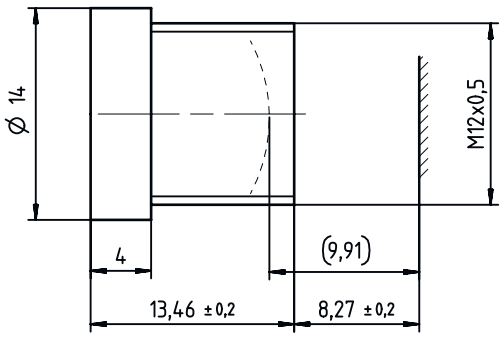
Ambient temperature, operation	-20 ... 60 °C

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

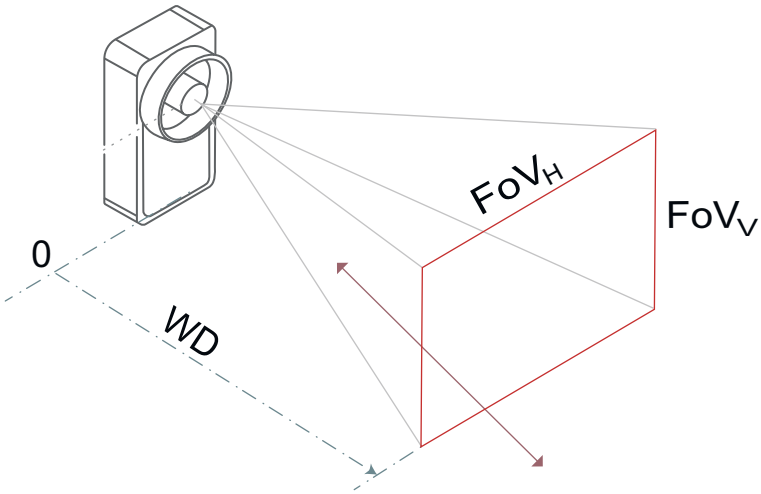
Dimensioned drawings

All dimensions in millimeters



Diagrams

Depth of field and field of view



Depth of field

A	B	C
150	153	177
200	196	236
250	237	298
300	276	364
350	**314**	**433**
400	351	506
450	386	582
500	420	663
550	452	749
600	484	840

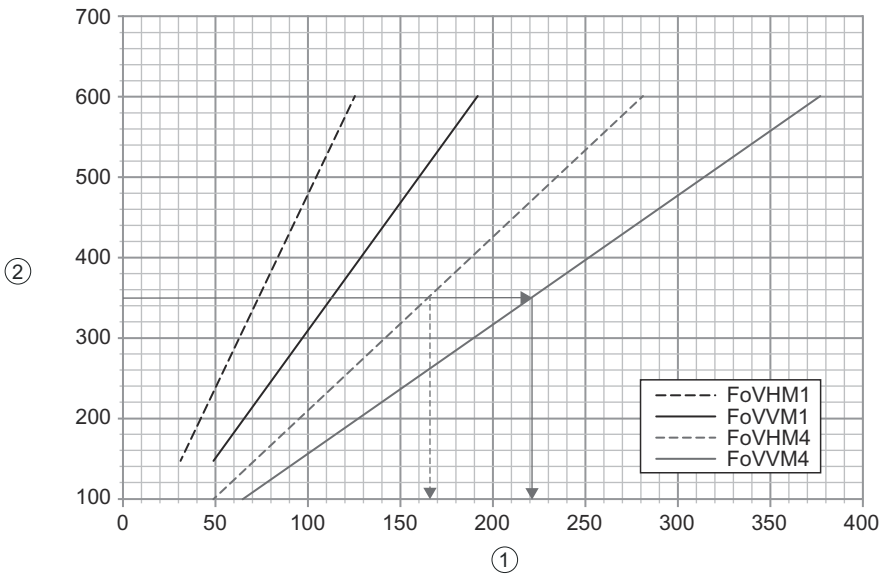
A	Working distance (WD) [mm]
B	Short range
C	Distant range
-	The depth of field (DoF) is the range within which the object can move away from or closer to the camera without going out of focus.
-	The depth of field depends on the lens aperture, the distance to the test object, the lens focal length and the pixel size of the camera.
-	Please note: During calculation, the double pixel size is used as the permissible blur.
Example: WD = 350 mm	The object should have a WD range of 314 to 433 mm.

Field of view (FoV)

A	B		C	
	FoV$_H$	FoV$_V$	FoV$_H$	FoV$_V$
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: WD = 350 mm	The FoV is 113 x 85 mm for devices with low resolution (-M1) and 221 x 166 mm for devices with high resolution (-M4).

Diagrams



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

Modulus size [mm]

A	B	C
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