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Technical Specifications

General Specifications

Model	**IRSX-I-336**		**IRSX-I-640**	
Detector type	Focal Plane Array (FPA), non-cooled microbolometer			
Spectral range	7.5 to 13 µm			
Pixel size	17 x 17 µm			
Frame rate	Slow 9 Hz	Fast 30/60 Hz	Slow 9 Hz	Fast 30 Hz
Measurement				
Measurement ranges	High Gain		-20°C to 135°C	
	Low Gain		-40°C to 550°C	
Accuracy	±2°C (±3,6 °F) or ±2% of the measured value (+10 to +100°C @ +10 to +35°C amb)			
NETD	< 30 mK @ F/1.0			
Lenses with air purge (IP 67)				
7.5 mm (f/1.4, f/1.2)	42° x 32°		72° x 60°	
9 mm (f/1.4)	35° x 27°		62° x 52°	
13 mm (f/1.25)	25° x 19°		45° x 37°	
19 mm (f/1.25)	17° x 13°		32° x 26°	
35 mm (f/1.5)	9.3° x 7.1°		18° x 14°	
Lenses without air purge				
35 mm	9.3° x 7.1°		18° x 14°	
50 mm	6.5° x 5.0°		12° x 9.9°	
60 mm	5.5° x 4.2°		10° x 8.3°	
100 mm	3.3° x 2.5°		6.2° x 5.0°	
Zoom lenses				
35 mm – 105 mm **				

(*) Subject to dual use export regulations (for frame rates > 9 Hz)

(**) On request

Electrical Specifications and Interfaces

Electrical Specifications	
Input voltage range	+10 to +24 V (DC)
Power consumption	4.0W (IRSX-336S) 4.2W (IRSX-640S)
Interfaces	
Ethernet connector	8 Pin, A-coded M12
Ethernet type	10, 100, 1000 Mbit/s
Ethernet protocols	DHCP, DNS, GigE Vision
Communication protocol	GigE Vision with GeniCam
Ethernet image stream	16-Bit, 14-Bit, 12-Bit, 8-Bit
Analog video out	Available on request
Inputs / Outputs	
Digital Inputs	2x electrically isolated, 5 - 24 VDC (max. 27 VDC) VIL, logic "0" voltage < 1.5V VIH, logic "1" voltage > 3.5V Max. frequency: 450 kHz
Digital Outputs	2x electrically isolated, 5 - 24 V (DC) VOL, logic "0" voltage < 0,5V VOH, logic "1" voltage ≥ 3,8V IOH, logic "1" max. current 100 mA
Digital I/O, input voltage	4.5 - 30 V (DC), max. 100 mA
Encoder / Resolver Input	A+,A-, B+,B- High-Speed, Dual RS-422/RS-485 Receiver Max. input voltage 24V DC RS422-Mode, max. frequency: 15 MHz
Analog Output	0 - 5V DC
Analog Input	0 - 5V DC
Connector Type	17 pin, M12 connector (shared with external power)

Mechanical and Environmental Specifications

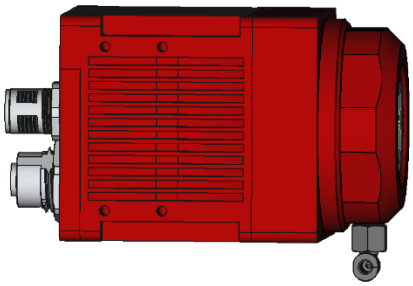
Mechanical specifications	
Dimensions	(55 x 55 x 61.5)mm (w/o lens, w/o connectors) (55 x 55 x 77)mm (w/o lens, w/ connectors)
Weight	270g (w/o lens)
Lens mount	M24 x 0,5 (lenses with air purge) M34 x 0,5 (lenses without air purge, zoom lens)
Mounting	4x M3 threaded holes (all sides)
Material	Aluminum
Environmental	
Protection class	IP 67 (IEC 60529)
Operating temperature range	-40°C to +60°C
Storage temperature range	-50°C to +80°C (IEC 68-2-1 and IEC 68-2-2)
Humidity	0 to 95% relative humidity, non-condensing (IEC 60068-2-30)
Bump	200g (IEC 60068-2-29)
Vibration	4.3g (IEC 60068-2-6)
RoHS	compliant

Installation and Connection

Mechanical Installation

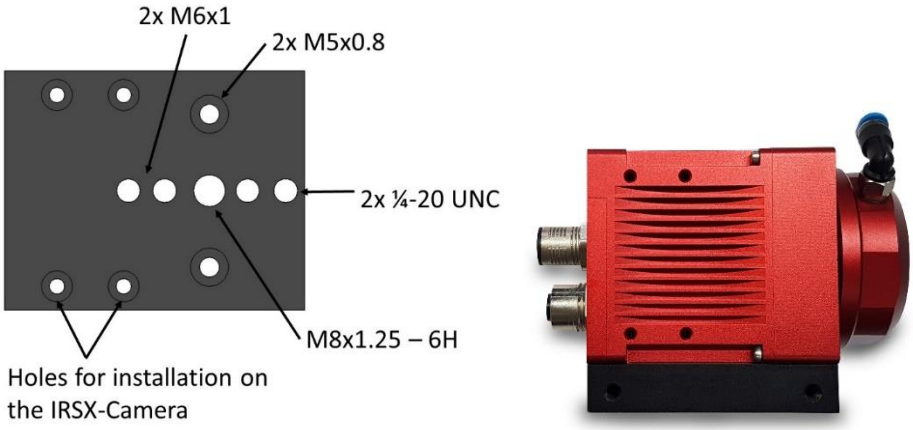
The camera can be mounted via four M3 mounting holes on each side of the housing.

Note: The tightening torque for the M3 screws must not exceed 1 Nm.



Mounting with Base-Adapter

Alternatively, the IRSX camera can be installed with the optional mounting adapter. The adapter provides a variety of threaded holes (metric and inches) and 4 holes for installation on the camera (see Figure 3 or Section 6.2.5).



Mounting with adjustable Pan-Tilt head

The mounting bracket allows installing the IRSX camera with an adjustable pan and tilting angle to the mounting point (e.g., aluminum profile).