Allied Vision

FXO SWIR

fxo990MCX

General

Model	fxo990MCX
Product code	F002134
Product series	FXO SWIR
Status	Available

Sensor

Sensor type	Area scan
Chroma	Mono
Spectrum	SWIR, Visible SWIR
Spectral range	400 nm to 1700 nm
Resolution	1,280 × 1,024 (1.30 MP)
Sensor model	Sony IMX990 | InGaAs
Sensor architecture (material)	cmos
Shutter type(s)	Global shutter (GS)
Sensor size	6.4 × 5.12 mm (8.2 mm, Type 1/2)
Pixel size	5.00 µm × 5.00 µm

Pixel formats

Sensor bit depth	8-bit, 12-bit
Monochrome pixel formats	mono8, mono12

Imaging performance

Dynamic range	57 dB

Timing and gain

Max. frame rate	134 fps
Exposure time	15 µs to 500.00 ms
Gain	0.0 dB to 42.0 dB

I/Os and power

Non-isolated lines	0 x LVDS input, 0 x LVDS output, 0 x TTL input, 0 x TTL output, 2 x 24V input, 4 x Open drain output,
Specific non-isolated lines	1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,
Opto-isolated lines	1 x Optical isolated input, 0 x Optical isolated input,
I/O connector	12-pin Hirose HR10A-10P-12S
Power supply	10 to 25VDC, Power over CoaXPress
Power consumption	External: 7 W (typical)

Operating conditions

Operating temperature (housing)	-10 °C to 65 °C

Mechanical properties

Body dimensions (L x W x H in mm)	70 × 50 × 50
IP class	IP30
Lens mount(s)	C-Mount
Weight	240 g

On-board memory and FPGA

Non-volatile memory (Flash)	32000 MByte

Interfaces

Digital interface	cxp-12 with 1 connection
Interface connector	(micro-BNC)
Vision standard	CoaXPress 2.0

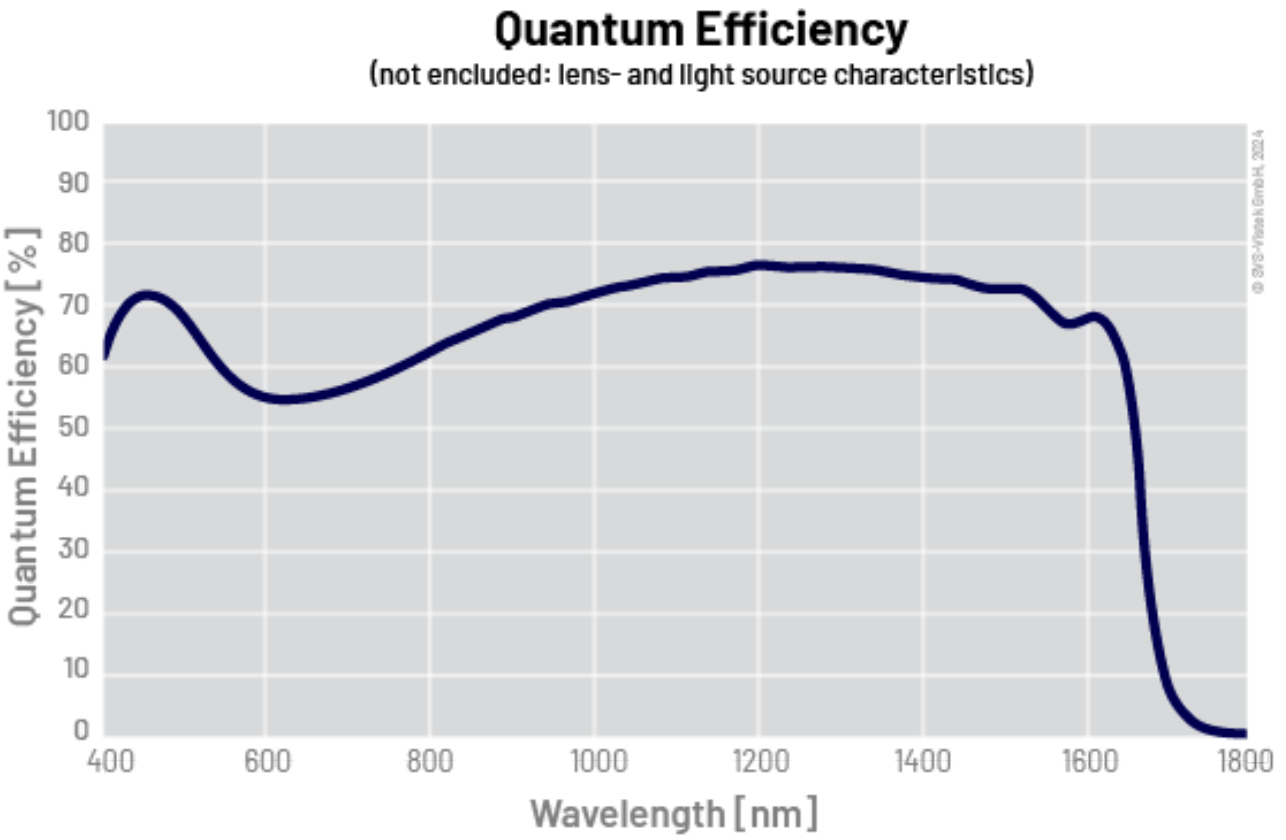
FW features - image control

Exposure modes	manual, auto
Gain modes	auto, manual
Image control features	roi, lut, mirror-image, dpc, nuc, ffc

FW features - camera control

Trigger modes/sync	internal, software, external
Camera control features	PoCxP, User Sets, PWM(4), Sequencer,

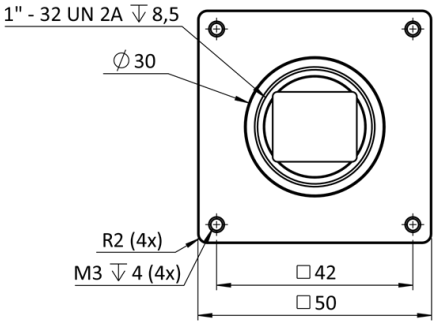
Quantum Efficiency



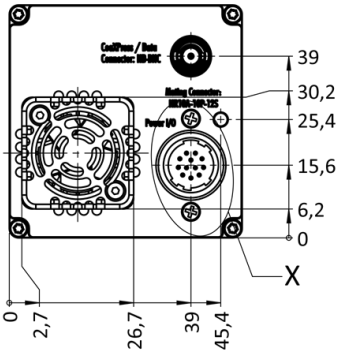
Allied Vision

Technical Drawing

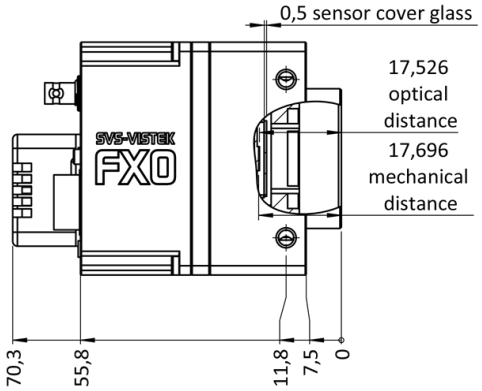
front



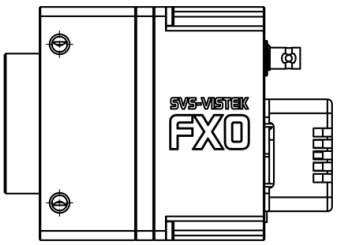
back



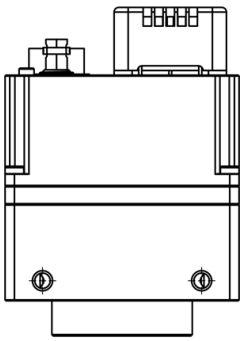
cross section



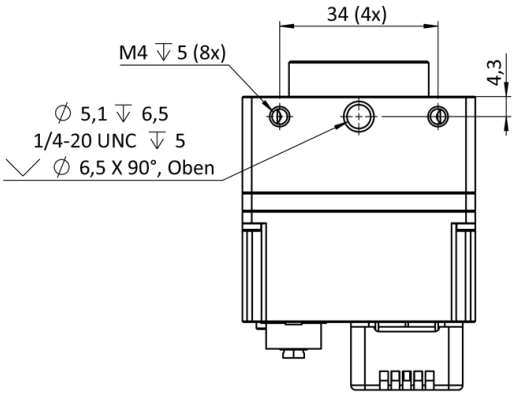
right side



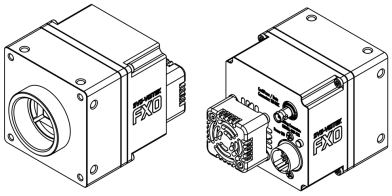
top



bottom

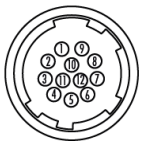


3D



I/O pin assignment

Hirose 12 Pin



1	VIN –	(GND)	7	OUT 1	(open drain)
2	VIN +	(10 V to 25 V DC)	8	OUT 2	(open drain)
3	IN 4	(RXD RS232)	9	IN 3 +	(opto In +)
4	OUT 4	(TXD RS232)	10	IN 3 –	(opto In –)
5	IN 1	(0 - 24V)	11	OUT 3	(open drain)
6	IN 2	(0 - 24V)	12	OUT 0	(open drain)