Allied Vision

EXO USB3
exo250CU3

General

Model:	exo250CU3
Product code(s):	F001686
Product series:	EXO USB3
Status:	Available

Sensor

Sensor type:	Area scan
Chroma:	Color
Spectrum:	Visible
Spectral range:	400 nm to 1000 nm
Resolution:	2,448 × 2,048 (5.00 MP)
Sensor model:	Sony IMX250LQR
Sensor architecture (material):	cmos
Shutter type(s):	global-shutter
Sensor size:	8.45 × 7.07 mm (11.01 mm, 11.1mm (Type 2/3))
Pixel size:	3.45 µm × 3.45 µm

Pixel formats

Sensor bit depth:	8-Bit,12-Bit,12-Bit
RGB pixel formats:	bayer8, bayer12packed

Imaging performance

Dynamic range:	72 dB
SNR:	40 dB

Timing and gain

Max. frame rate:	75 fps
Exposure time:	60 µs (max)
Gain:	0.0 dB to 48.0 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,
Power supply:	10 to 25VDC
Power consumption:	External: 4.5 W (typical)

Operating conditions

Operating temperature (housing):	-10 °C to 60 °C

Mechanical properties

Body dimensions (L x W x H in mm):	43 × 50 × 50
Filter/protection glass:	IR-Cut - 680nm
IP class:	IP40
Lens mount(s):	C-Mount
Weight:	138 g

On-board memory and FPGA

Image buffer (RAM):	192 MByte
Non-volatile memory (Flash):	32 MByte

Interfaces

Digital interface:	usb3.0
Interface connector:	(Micro-B)

FW features - image control

Exposure modes:	Manual, Auto, External
Gain modes:	Auto, Manual

FW features - image control

White balance modes:	auto, manual
Image control features:	FW Features - Image Control

FW features - camera control

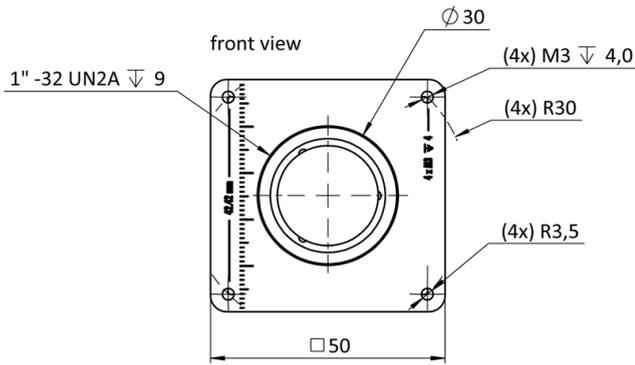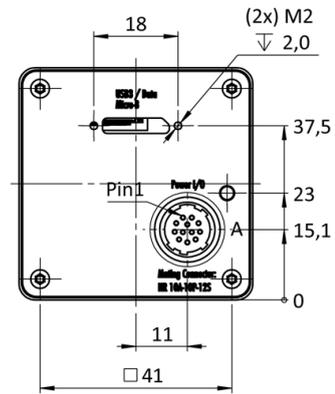|	
Trigger modes/sync:	INTERNAL,SOFTWARE,EXTERNAL
Camera control features:	User Sets, PWM(4), Sequencer,

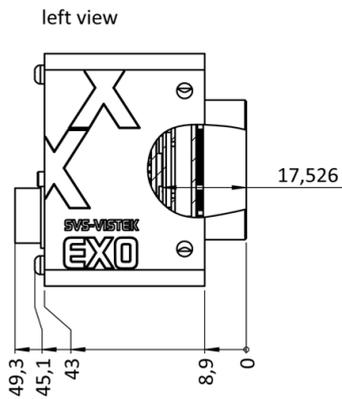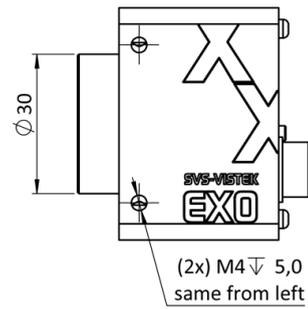Sensor data — excludes camera cover- or IR-cut filter characteristics

front

front view

∅ 30

1" -32 UN2A ⟱ 9

(4x) M3 ⟱ 4,0

(4x) R30

(4x) R3,5

□ 50

back

18

(2x) M2 ⟱ 2,0

37,5

Pin1

Power I/O

A

23

15,1

0

11

□ 41

cross section

left view

17,526

49,3
45,1
43

8,9

0

right side

∅ 30

SVS-VISTEK

EXO

(2x) M4 ⟱ 5,0
same from left

top

M4 ⟱ 5

bottom

34

4,3

(2x) M4 ⟱ 5,0
same from top

1/4"- 20UNC ⟱ 5,0
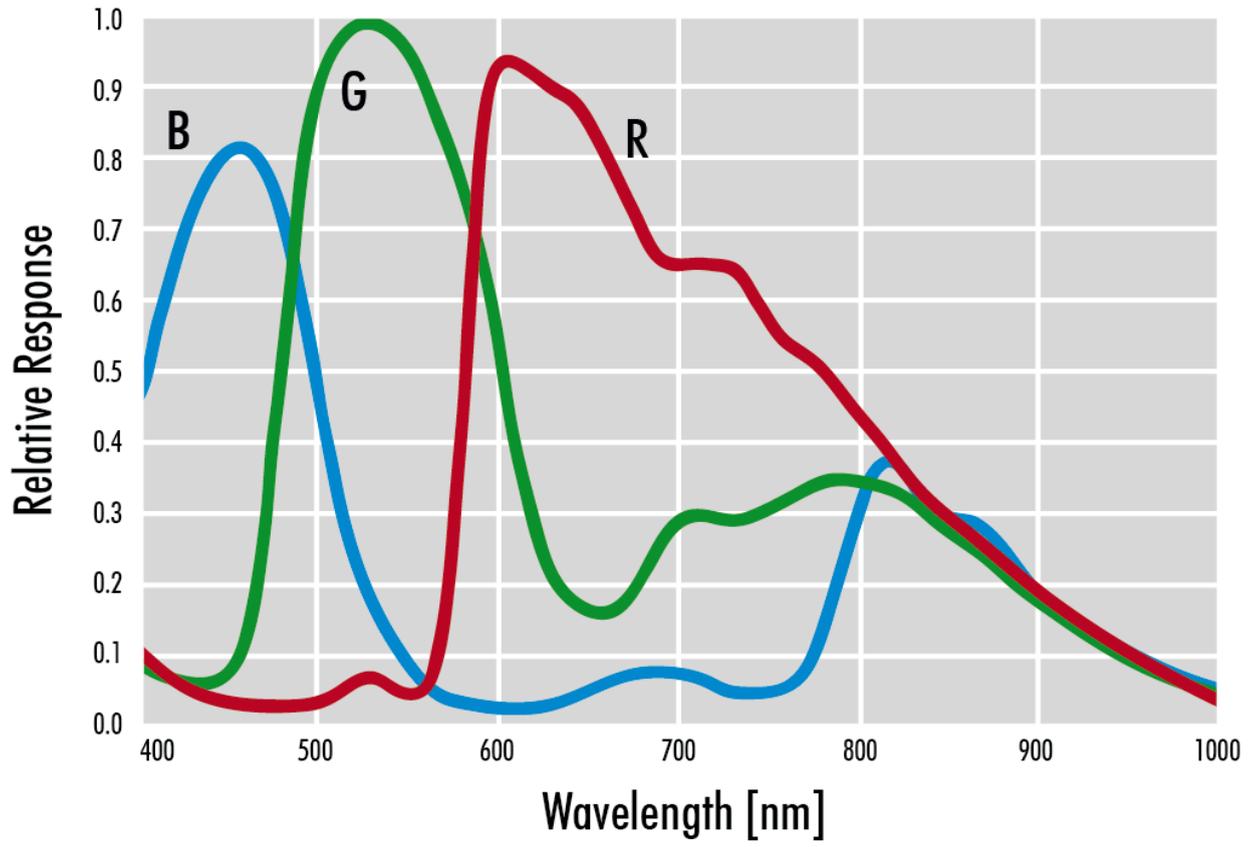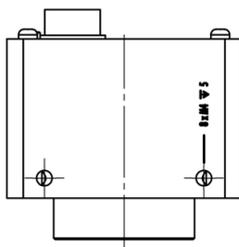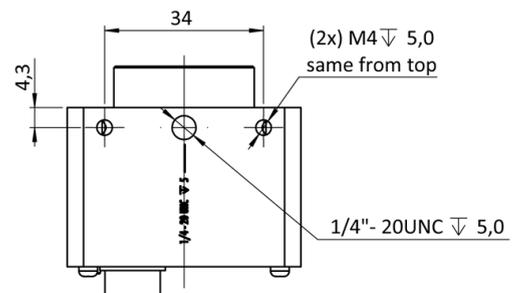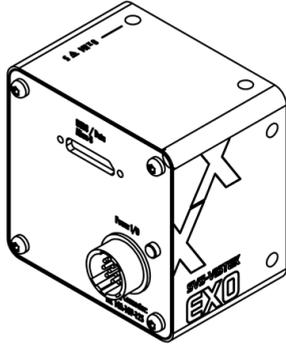
I/O pin assignment

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)