Allied Vision

HR 10GigE

hr455CXGE

General

Model:	hr455CXGE
Product code(s):	F004099
Product series:	HR 10GigE
Status:	Available

Sensor

Sensor type:	Area scan
Chroma:	Color
Spectrum:	Visible
Spectral range:	400 nm to 1000 nm
Resolution:	9,568 × 6,380 (61.00 MP)
Sensor model:	Sony IMX455AQK
Sensor architecture (material):	cmos
Shutter type(s):	rolling-shutter
Sensor size:	35.98 × 23.99 mm (43.24 mm, 43.3mm (Type 2.7))
Pixel size:	3.76 µm × 3.76 µm

Pixel formats

Sensor bit depth:	8-Bit,12-Bit,16-Bit
RGB pixel formats:	bayer8, bayer12, bayer16

Imaging performance

Dynamic range:	81.4 dB
SNR:	47 dB

Timing and gain

Max. frame rate:	18 fps
Exposure time:	60 µs (max)
Gain:	0.0 dB to 36.0 dB

I/Os and power

Non-isolated lines:	0 x LVDS input, 0 x LVDS output0 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: 18 W (typical at 12 VDC)

Operating conditions

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

Mechanical properties

Body dimensions (L x W x H in mm):	78 × 70 × 70
Filter/protection glass:	N-BK7 - AR coating
IP class:	IP30
Lens mount(s):	M58x0.75
Weight:	420 g

On-board memory and FPGA

Image buffer (RAM):	448 MByte

Interfaces

Digital interface:	10gige
Interface connector:	(RJ-45)

FW features - image control

Exposure modes:	Manual, Auto, External
Gain modes:	Auto, Manual
White balance modes:	auto, manual

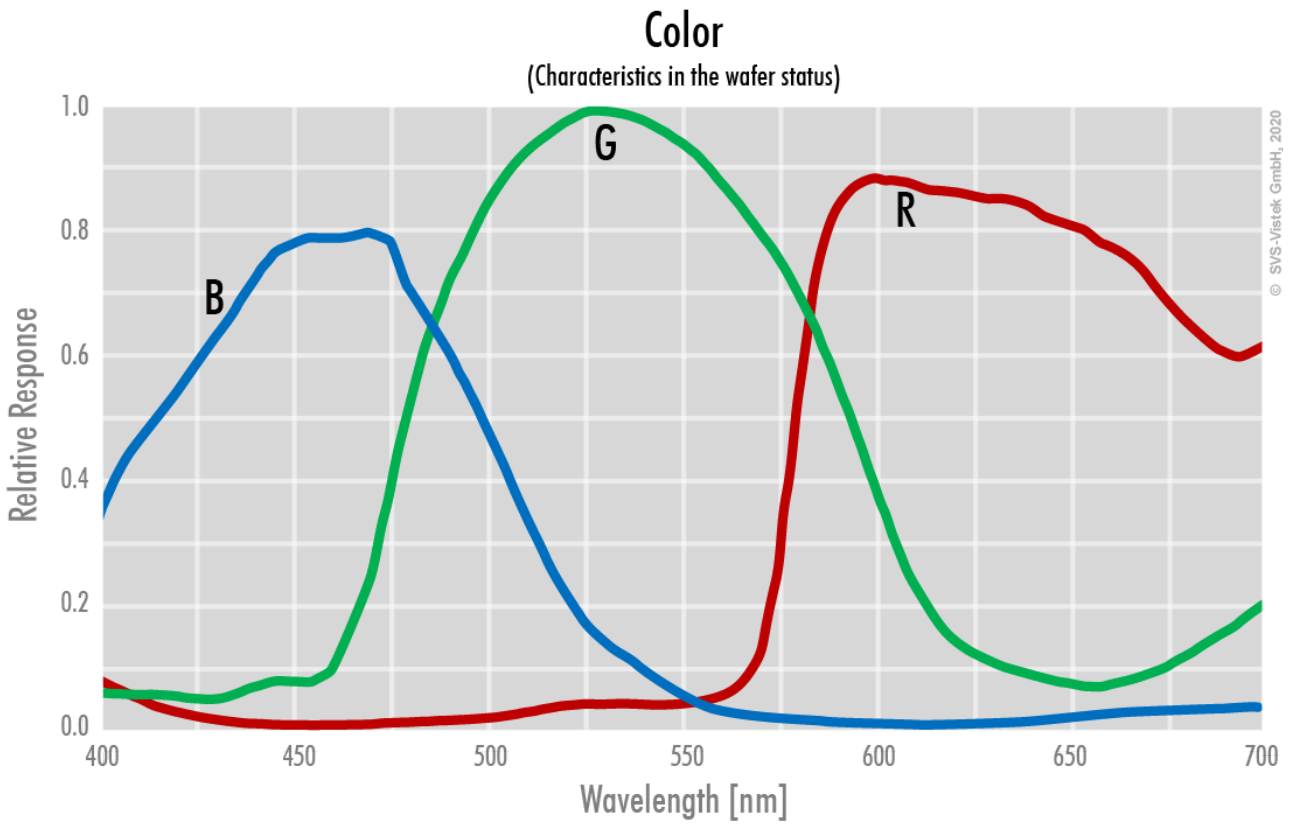
FW features - image control

Image control features:	FW Features - Image Control

FW features - camera control

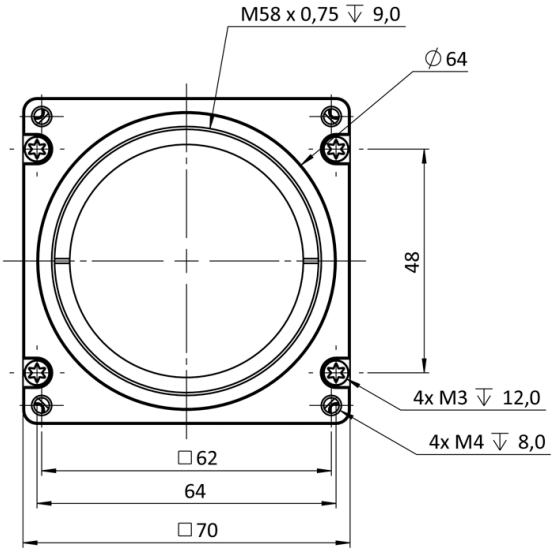
Trigger modes/sync:	INTERNAL,SOFTWARE,EXTERNAL
Camera control features:	User Sets, POE, PWM(4), Sequencer,

Quantum Efficiency

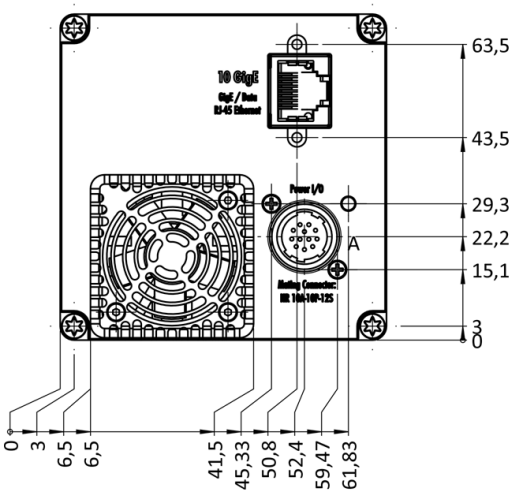


Technical Drawing

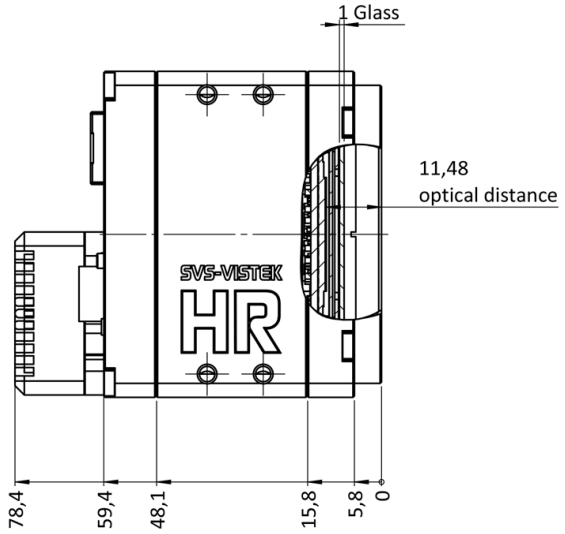
front



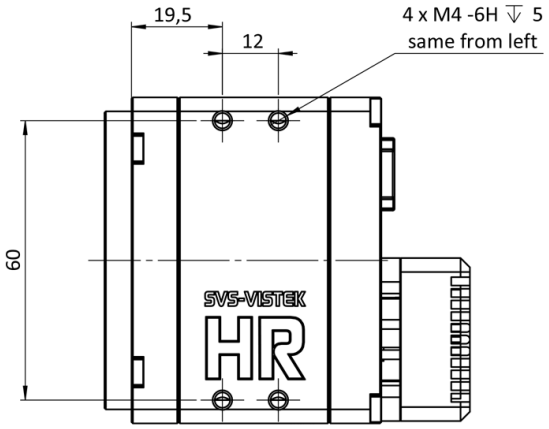
back



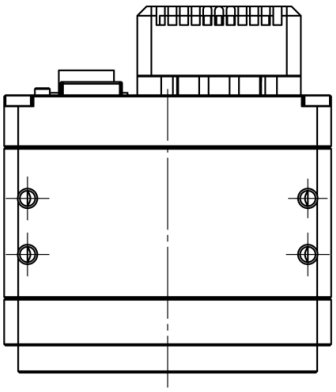
cross section



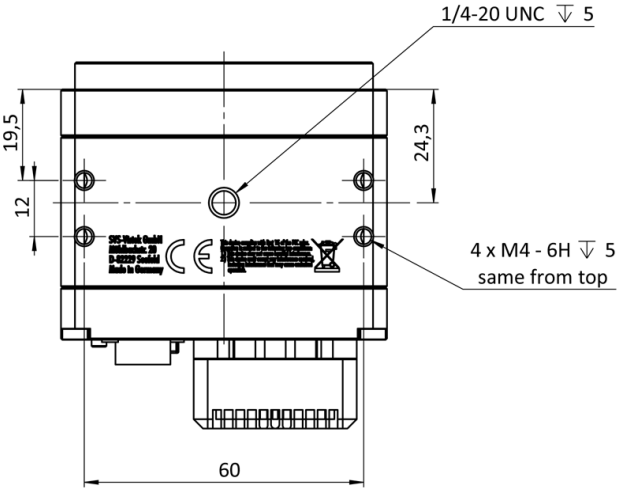
right side



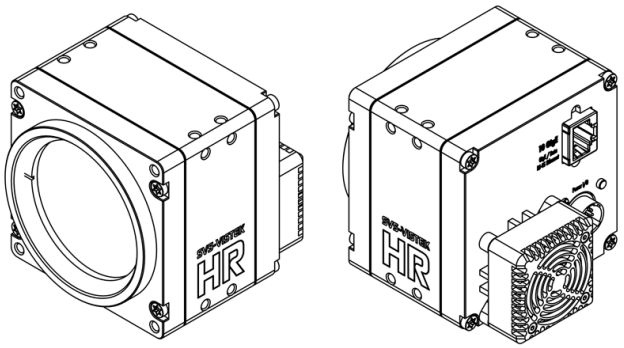
top



bottom

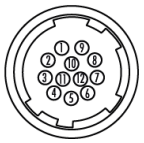


3D



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)