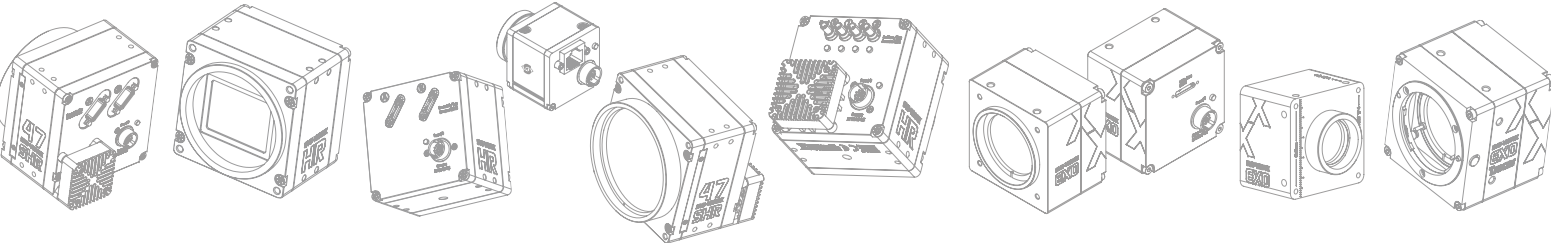
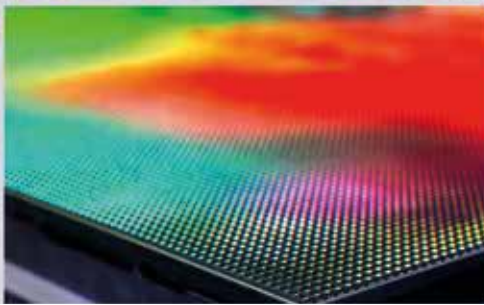




SVS-VISTEK



2022 / 01

Industrial Cameras

made by SVS-Vistek



Scale your vision.



Feature List

	ECO	EXO	FXO	HR	SHR
Sensor	0.3 to 12 Mpixel CCD	1.6 to 31.4 Mpixel CMOS and CCD	5 to 24.5 Mpixel CMOS	16.8 to 122 Mpixel CMOS	up to 151 Mpixel CMOS
	Sony	Sony and CMOSIS SenSWIR Polarsens	Sony	SenSWIR	Sony / CANON / Gpixel / ON Semiconductor
	mono and color versions progressive scan or global shutter (precise images without blur)				

Camera Hardware Features	GigE Vision up to 120 MB/s	GigE Vision, Camera Link Base or USB3 Vision	10GigE Vision or 1 x CoaXPress-12	10GigE Vision, Camera Link or 4 x CoaXPress-6	10GigE or 4 x CoaXPress-6
	64 MB internal memory	256 MB internal memory	1024 MB internal memory	512 MB internal memory	512 MB internal memory
	8 or 12 bit pixel format			8, 12 or 16 bit pixel format	
		PoCL, PoUSB	PoE+, PoCXP	PoE+ (optional), PoCL, PoCXP	PoE+ (optional), PoCXP
	C or CS Mount	C Mount, M42, MFT, EF Mount	C Mount, EF Mount	M58 Mount (FFD 11.48), EF Mount	M72 Mount (FFD 19.55)
		Lens Mount Adapters available			
		optional Dynamic Lens Control (MFT)			
	38 x 38 x 33 / 45 mm	50 x 50 x X mm (M42: 58 x 58 x X)	50 x 50 x X mm (depend. on interface)	70 x 70 x X mm (depending on sensor)	80 x 80 x X mm (depending on sensor)
	IP Class up to IP67	precision machined housing			
		**manual or auto tap balancing		**manual or auto tap balancing	

Camera Firmware Features	2 x 2 binning				
	horizontal and vertical image flip				
	custom defect pixel corr. - defect pixel map *				
	shading correction				
	AOI / ROI (area of interest / region of interest)				
	read out control - custom acquisition timing (manual or delayed) GigE only				
	white balance (manual / auto)				
	exposure time control (manual, auto or external)				
	gain (manual or auto)				
	adjustable offset				
	LUT (lookup table)				
	trigger mode (internal, software or external)				
	integrated temperature sensor - SDK accessible				

I/O Features	up to 4 x open drain outputs	4 x open drain outputs
	strobe controller - in-camera LED light driver/controller, up to 3 A (depending on series) - easy synchronization	
	sequencer - up to 32 programmable intervals with individual exposure and strobe out	
	programmable logic I/O functionality with timers	
	PWM - high frequency pulse width modulation	
	signal safe through high-low filter, debouncer and prescaler for trigger input	
	versatile I/O concept: 24 V signal levels - RS232 / RS422 differential signal	

Standards	GenCam compatible				
	compatible with most 3 rd party software				

*SenSWIR and Polarsens are trademarks of Sony Corporation, **not valid for all models



"High-quality cameras, components and Vision expertise from SVS-Vistek deliver reliable elements of your application. We are committed to ensuring this and will be pleased to provide experts to support you during the entire design-in process."

Camera Concept

Design

- > OEM Design for system integration
- > Flexible and scalable with identical connector pinout in all camera series
- > Individual custom OEM designs for system integrators
- > Industrial long-term support of cameras
- > Wide power supply range 10 - 25 V



Engineering and Production

- > Excellent optical precision
- > Precise and rugged long life mechanical design
- > Advanced temperature management
- > Industrial protection class up to IP67



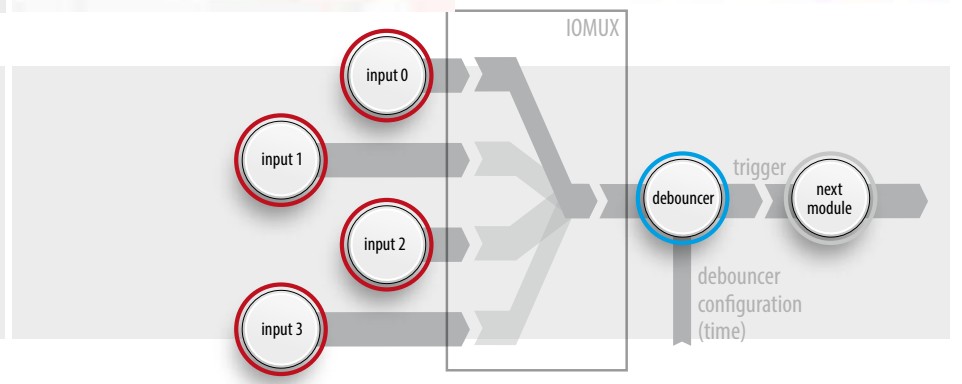
Unique Features

- > PWM power drives for LED lights (LED)
- > Programmable sequencer for shutter and LEDs (SEQ)
- > Programmable I/O logic (PLC)
- > Burst mode (BST)
- > Safe trigger (STT)
- > Precision time protocol (PTP)
- > Particle image velocimetry (PIV)
- > Dynamic lens control (MFT)



Powerful I/O Concept

- > Hirose and industrial M12 connectors
- > Configurable I/O matrix
- > Up to 4 x power PWM OUT max 3 A (depending on series)
- > Up to 4 x trigger IN, TTL-24V
- > Up to 2 x optical IN
- > RS232 or RS422 IN/OUT



Software

- > Works with any GenCam camera
- > Windows and Linux supported (x64, x86, ARM)
- > Compliant with standards such as USB3 Vision, CoaXPress, GigE Vision, GenCam, Camera Link
- > GenCam transport Layer for out-of-the-box compatibility to nearly all Machine Vision software such as CVB, HALCON, MERLIC, openCV, nVision, eyeVision, COGNEX VisionPro, Matlab, MIL, LabView, Visionbuilder, StreamPix, eBUS SDK and many others





VGA TO 12 MEGAPIXEL

ECO Series

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- BST BURST MODE TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL

ECO GigE Vision Cameras

Unsurpassed flexibility with great performance and affordability in a small package. This characterizes the ECO series best. You will find all popular CCD-Sensors from Sony in the ECO series. These cameras are available in more than 100 different versions with resolutions from VGA up to 12 megapixels. ECO series cameras are designed to achieve high frame rates while maintaining excellent signal-to-noise ratios and at the same time providing a small footprint. Supporting the standards of GigE Vision™ and GenICam™ the ECO series opens up new dimensions for integration into your application SW-Environment.

Special Features of the ECO Series:

- > Progressive Scan CCD sensors
- > Area of Interest modes (AOI)
- > 8/12 Bit video data stream (14 Bit ADC)
- > 64 MB frame buffer
- > White balance for color versions (one shot, auto, or manual)
- > Wide range Power conditions: 10 - 25 V DC
- > Sequence-Shutter and enhanced Strobe-Functionality
- > Up to 4 x direct drive and control of LED lighting
- > Dimensions [mm]: 38 x 38 x 33/45

ECO Series [MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	GigE		BlackLine
							max. Frame Rate [fps]	IP67	
eco618	0.3	656 x 492	1/4"	Sony ICX618	5.6	CCD	C/CS	155	✓
eco424	0.3	656 x 492	1/3"	Sony ICX424	7.4	CCD	C/CS	124	✓
eco414	0.3	656 x 492	1/2"	Sony ICX414	9.9	CCD	C/CS	125	✓
eco415	0.4	780 x 580	1/2"	Sony ICX415	8.3	CCD	C/CS	86	✓
eco204	0.8	1,024 x 776	1/3"	Sony ICX204	4.65	CCD	C/CS	47	✓
eco445	1.3	1,296 x 964	1/3"	Sony ICX445	3.75	CCD	C/CS	30	✓
eco267	1.4	1,392 x 1,040	1/2"	Sony ICX267	4.65	CCD	C/CS	25	✓
eco285	1.4	1,392 x 1,040	2/3"	Sony ICX285	6.45	CCD	C	34	✓
eco274	2.1	1,600 x 1,236	1/1.8"	Sony ICX274	4.4	CCD	C/CS	26.5	✓
eco655	5	2,448 x 2,050	2/3"	Sony ICX655	3.45	CCD	C/CS	10	✓
eco625	5	2,448 x 2,050	2/3"	Sony ICX625	3.45	CCD	C/CS	20	✓
eco674	2.8	1,920 x 1,460	1/2"	Sony ICX674	4.54	CCD	C	19.9	✓
eco695	6	2,752 x 2,204	1"	Sony ICX695	4.54	CCD	C	10.1	✓
eco815	9	3,360 x 2,712	1"	Sony ICX815	3.69	CCD	C	7	✓
eco834	12	4,224 x 2,838	1"	Sony ICX834	3.1	CCD	C	5.5	✓

PoE versions on request



12.3 TO 20 MEGAPIXEL WITH MFT BAYONET

Tracer Series

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- BST BURST MODE TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL
- µM MICRO FOURTHIRDS

Tracer GigE Vision and USB3 Cameras

The Tracer's lens mount is a Micro Four Thirds (MFT) mount, covering all electric connections for lightning fast control of the lens zoom, focus and aperture. The optical lens specification of MFT allows for the best optical results. The MFT mount opens up a wide range of high-quality lenses for the Tracer. Control options for exposure time, focus, zoom, aperture and strobe lighting through a single GenICam interface. Combining this lens control with high performance sensors up to 20 MP of resolution and 72dB dynamic range, the Tracer can deliver cutting edge imaging technology.

Special Features of the Tracer Series:

- > Micro-Four-Thirds bayonet mount
- > Fast user control of zoom, aperture and focus
- > Lens settings controlled by GigE Vision interface, USB3 Vision and also GenICam
- > Data interface: GigE or USB3
- > User selectable AOI (Area Of Interest)
- > SDK for Windows (32/64bit) and Linux available
- > Frame buffer: 256 MB
- > Dimensions [mm]: 58 x 58 x 45

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	USB3		GigE
								max. Frame Rate [fps]	max. Frame Rate [fps]	
exo304 TR	12.3	4,096 x 3,000	1.1"	Sony IMX 304	3.45	CMOS	MFT	-	-	10
exo387 TR	16.8	5,456 x 3,076	4/3"	Sony IMX 387	3.45	CMOS	MFT	22	-	7.4
exo367 TR	19.6	4,416 x 4,428	4/3"	Sony IMX 367	3.45	CMOS	MFT	19	-	6.2
exo183 TR*	20.2	5,496 x 3,672	1"	Sony IMX 183	2.4	CMOS	MFT	-	-	6

* Rolling Shutter

Legend of our Features

- LED** PWM power drives for LED lights
- SEQ** Programmable sequencer for shutter and LEDs
- PTP** Precision time protocol
- STT** Safe trigger technology
- BST** Burst mode technology
- PIV** Particle image velocimetry
- PLC** Programmable I/O logic
- µM** Dynamic lens control



1.6 TO 31.4 MEGAPIXEL

EXO Series

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- BST BURST MODE TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL

The EXO Concept

The EXO series is the perfect choice for system integrators with ever changing tasks. Simple and scalable integration with maximum functionality was our objective. The aluminum unibody housing is precisely machined with excellent thermal and mechanical properties and creates the platform for a complete offering of sensors and interfaces. A wide range of the latest CMOS and CCD sensors from Sony and CMOSIS makes it easy to select the right camera for virtually any application. On the interface side, the choices are GigE Vision, Camera Link Base or USB3.0.

Special Features of the EXO Series:

- > Sensors from Sony and CMOSIS
- > Global Shutter CCD and CMOS
- > 4 x direct drive and control of LED lighting
- > GigE Vision, Camera Link and USB3 supported
- > logical trigger functions
- > GenICam compliant
- > Dimensions [mm]: C mount: 50 x 50 x X (depending on sensor)
M42: 58 x 58 x X (depending on sensor)
- > Operating temperature [°C]: -10 up to 60

All SVCam models incorporate the same full set of features - a highlight is the ability to control and power independent 4 LED lights - all 4 lights individually controlled by the camera.

EXO USB3 Vision Cameras

The EXO is one of the most flexible and scalable cameras for the industrial market segment. The USB3 Vision interface is easy to integrate in your system, with a data rate up to effective 350 MB/sec. The time to market for applications is shortened, reducing costs even further. Power and trigger the camera through a single interface connection and reduce cable complexity. EXO provides plug-and-play capability for the whole range of 2.3 to 31 MP resolution.

- > Up to 350 MB/sec effective transfer rate
- > Leverages existing infrastructure for cables and connectors
- > Power camera with up to 4.5 W
- > Cost effective/easy implementation and interfacing
- > 256 MB frame buffer

EXO GigE Vision Cameras

EXO series cameras with GigE Vision interface give your applications an extremely high scalability. Quick and easy hardware interchangeability results in shorter design cycles and reduced development costs. Further value is added to your application by a virtually limitless feature set. As an example, the 4 I/O LED driver with standardized software control.

- > "Off the shelf" industrial-standard plugs and cables
- > Data transfer rate up to 120 MB/s
- > Up to 100 m range without additional switch
- > Wide range of applications in image processing
- > Remote service capability
- > 256 MB frame buffer

EXO Camera Link Cameras

EXO Camera Link models let you maintain the existing and proven infrastructure for years to come, while making use of the newest range of image sensors. The serialized interface has gained wide popularity and acceptance thanks to its high bandwidth. The EXO series was the first Camera Link model to include features such as 4 I/O strobe controller and look up table.

- > SVCam Kit Software control
- > 256 MB frame buffer

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	GigE Camera Link USB3		
								max. Frame Rate [fps]	max. Frame Rate [fps]	max. Frame Rate [fps]
exo273	1.6	1,440 x 1,080	1/2.9"	Sony IMX273	3.45	CMOS	C	79	-	-
exo174	2.3	1,920 x 1,200	1/1.2"	Sony IMX174	5.86	CMOS	C	52	105	160
exo249	2.3	1,920 x 1,200	1/1.2"	Sony IMX249	5.86	CMOS	C	41	-	41
exo252	3.1	2,048 x 1,536	1/1.8"	Sony IMX252	3.45	CMOS	C	-	78	115
exo265	3.1	2,048 x 1,536	1/1.8"	Sony IMX265	3.45	CMOS	C	39	-	55
exo4000	4	2,048 x 2,048	1"	CMOSIS CMV4000	5.5	CMOS	C	28	-	74
exo250	5	2,448 x 2,048	2/3"	Sony IMX250	3.45	CMOS	C	24.5	49	75
exo264	5	2,448 x 2,048	2/3"	Sony IMX264	3.45	CMOS	C	24.5	-	35
exo547	5	2,448 x 2,048	2/3"	Sony IMX547	2.74	CMOS	C	24.5	-	NEW
exo428	7.1	3,208 x 2,200	1.1"	Sony IMX428	4.54	CMOS	C	16	-	51
exo546	8.1	2,840 x 2,840	2/3"	Sony IMX546	2.74	CMOS	C	15	-	NEW
exo255	8.8	4,096 x 2,160	1"	Sony IMX255	3.45	CMOS	C	-	-	42
exo267	8.8	4,096 x 2,160	1"	Sony IMX267	3.45	CMOS	C	13.5	28	32
exo253	12.3	4,096 x 3,000	1.1"	Sony IMX253	3.45	CMOS	C	-	-	30
exo304	12.3	4,096 x 3,000	1.1"	Sony IMX304	3.45	CMOS	C	10	20	23
exo545	12.3	4,096 x 3,000	1.1"	Sony IMX545	2.74	CMOS	C	10	-	NEW
exo542	16.1	5,320 x 3,032	16.8 mm	Sony IMX542	2.74	CMOS	C	7	-	23 NEW
exo183*	20.2	5,496 x 3,672	1"	Sony IMX183	2.4	CMOS	C	5	12	17
exo541	20.3	4,504 x 4,504	17.45 mm	Sony IMX541	2.74	CMOS	C	6	-	18.4 NEW
exo540	24.4	5,320 x 4,600	19.27 mm	Sony IMX540	2.74	CMOS	C	5	-	15 NEW

* Rolling Shutter

EXO USB3 / GigE Cameras with M42 mount

The EXO is expanding its range of resolutions. The new models have fast USB3 / GigE Vision interfaces and provide image resolutions of up to 31 megapixels. The sensors have large 3.45 µm pixels, delivering an excellent dynamic range up to 72 db and high light sensitivity. Due to the sensor size, the cameras come with a M42 mount.

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	GigE Camera Link USB3		
								max. Frame Rate [fps]	max. Frame Rate [fps]	max. Frame Rate [fps]
exo387	16.8	5,456 x 3,076	4/3"	Sony IMX387	3.45	CMOS	M42	7.4	-	22
exo367	19.6	4,416 x 4,428	4/3"	Sony IMX367	3.45	CMOS	M42	6.2	-	19
exo342	31.4	6,464 x 4,852	27.9	Sony IMX342	3.45	CMOS	M42	3.8	-	12



FXO Series

UP TO 24.5 MEGAPIXEL

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL
- PIV PARTICLE IMAGE VELOCIMETRY
- PTP PRECISION TIME PROTOCOL

FXO 10GigE Vision and CoaXPress Cameras

The new 4th generation of sensors of the Pregius series from Sony is the heart of the FXO series. With its new backside illuminated technology, the sensor is even more light sensitive and less noise than the previous Pregius generations. The 2.74 µm pixel of the Pregius S with global shutter allows for cost-effective C mount lenses and faster, high resolution imaging.

A compact housing, specially milled for each sensor size, and the latest electronics offer the ideal working environment for this fast, high-performance sensor. The FXO combines the excellent image quality of the sensor with fast interfaces, powerful I/Os and camera features.

Areas of application FXO 10GigE

The modern, powerful 10GigE interface is an extremely economical version of the FXO. Up to 100 m cable length and PoE are possible. The control is transparent to GigE Vision.

Areas of application FXO CoaXPress

The FXO with CoaXPress-12 is suitable for extremely time-critical applications with minimal jitter and extremely constant data flow. PoCXP is supported.

Powerful Features of the FXO Series:

- > all CXP cameras with PIV mode
- > all 10GigE cameras with PTP mode
- > high resolutions in a small housing
- > Thermally highly optimized milled housing, up to 60°C operating temperature
- > State-of-the-art interfaces 10GigE and CoaXPress-12 with PoE+ or PoCXP
- > Mono and Color (Bayer) with auto white balance
- > Various trigger and exposure modes, global shutter
- > Auto and manual gain and exposure
- > Area of Interest (AOI/ROI)
- > 8 or 12 bit color depth
- > 1024 MB Memory
- > Logical trigger functions (PLC)
- > Power output (4-channel strobe controller) with 3A max
- > Electrical and optical inputs
- > Programmable timers and sequencers with logic modules
- > SDK for Windows and Linux (X86, ARM) available
- > GenTL driver, GenCam Standard 3.0

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	10GigE		CoaXPress	
								max. Frame Rate [fps]		max. Frame Rate [fps]	
fxo547	5	2,448 x 2,048	1/1.8	Sony IMX547	2.74	CMOS	C	124	124	NEW	
fxo546	8.1	2,840 x 2,840	11.1 mm	Sony IMX546	2.74	CMOS	C	88	88	NEW	
fxo545	12.3	4,096 x 3,000	1/1.1	Sony IMX545	2.74	CMOS	C	61	61	NEW	
fxo542	16.1	5,456 x 3,076	16.8 mm	Sony IMX542	2.74	CMOS	C	45.6	45.6	NEW	
fxo541	20.3	4,480 x 4,504	17.5 mm	Sony IMX541	2.74	CMOS	C	33	35.7	NEW	
fxo540	24.5	5,320 x 4,600	19.3 mm	Sony IMX540	2.74	CMOS	C	30.4	30.4	NEW	



HR Series

UP TO 122 MEGAPIXEL

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL
- PTP PRECISION TIME PROTOCOL

HR 10GigE Vision Cameras

Excellent image quality at the highest resolutions with the most flexible interface is the domain of the HR series. The new 10GigE interface offers almost ten times the transmission power with unchanged flexibility.

Easy integration with GenCam, a flexible M58 mount and robust electronics make the HR series the ideal workhorse for demanding machine vision tasks. They deliver excellent consistent images and the best S/N ratio for every sensor.

Special Features of the HR GigE Series:

- > all 10GigE cameras with PTP mode
- > 10GigE data interface
- > GigE Vision and GenCam standard compliant
- > Cable lengths up to 100 meters are possible
- > AOI (Area of Interest)
- > SDK for Windows (32/64 bit) and Linux available
- > 512 MB Memory
- > Dimensions [mm]: 70 x 70 x 60.7

HR Camera Link Cameras

Our sophisticated sensor knowledge enables the Camera Link versions of the HR series the fast and direct connection to the sensor - often critical to your advantage. Available resolutions are 120 megapixels with the best of the CMOS technology. Newest high-speed CMOS sensors are optimally supported with Camera Link base, medium or full standard.

Special Features of the HR Camera Link Series:

- > GenCam compliant
- > Power over Camera Link (PoCL)
- > 512 MB Memory
- > Dimensions [mm]: 70 x 70 x 56.3

HR CoaXPress Cameras

Outstanding image quality is the core competence of the HR Series. Nonetheless, the HR Series achieves highest frame rates at highest resolutions. The CoaXPress interface of the HR delivers up to 25 GB/s of image data. Global Shutter and Rolling Shutter models are available. The HR Series is characterized by a high S/N ratio and an exceptionally homogeneous image.

Special Features of the HR Camera CXP Series:

- > GenCam compliant
- > Power over CXP
- > 512 MB Memory
- > Long distance interface cables
- > Dimensions [mm]: 70 x 70 x 56.9

Model	[MP]	Resolution [pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	10GigE		Camera Link		CoaXPress	
								max. Frame Rate [fps]		max. Frame Rate [fps]		max. Frame Rate [fps]	
hr387	16.8	5,456 x 3,076	21.7 mm	Sony IMX387	3.45	CMOS	M58/F	56.4	-	-	-	-	-
hr25	25	5,120 x 5,120	32.5 mm	ON Semi Python25K	4.5	CMOS	M58/F	-	31.7	-	-	-	81
hr342	31.4	6,464 x 4,852	27.9 mm	Sony IMX342	3.45	CMOS	M58/F	35.4	-	-	-	-	35.7
hr49	49	7,008 x 7,000	37.4 mm	GMAX3265-49	3.2	CMOS	M58/F	-	17	-	-	-	NEW
hr51	51	8,424 x 6,032	35 mm	GMAX4651	4.6	CMOS	M58/F	23.7	-	-	-	-	30
hr455*	61	9,568 x 6,380	43.24 mm	Sony IMX455	3.76	CMOS	M58/F	17.9	-	-	-	-	18.1
hr65	65	9,344 x 7,000	37.4 mm	GMAX3265	3.2	CMOS	M58/F	17	13	-	-	-	34
hr120*	122	13,272 x 9,176	APS-H	Canon 120MXSM	2.2	CMOS	M58/F	-	6.8	-	-	-	9.3

PoE+ versions on request, * Rolling Shutter, all 10GigE cameras with PTP mode



SHR Series

UP TO 151.2 MEGAPIXEL

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL
- PTP PRECISION TIME PROTOCOL

SHR 10GigE Vision Cameras

Super High Resolution, Large Field of View, tremendous detail. The SHR 10GigE cameras incorporate all of this into an interface that allows long distance data delivery at high speeds, with high fidelity images as high as 16 bit. Combine this with power optics and our M72 mount, SVS-Vistek provides a tool for a high resolution imaging power house.

SHR CoaXPress Cameras

The SHR Series offers highest resolutions up to 151 MP with Rolling Shutter sensors and CoaXPress for quality control. Excellent temperature management ensures optimum image quality even with the large sensors. The SHR CoaXPress is one of the most powerful interface standards in industrial image processing and the SHR CXP Series benefits from its high bandwidth with its large images. The sophisticated 4 I/O system is the basis for a fast integration into the application.

Special Features of the HR GigE Series:

- > all 10GigE cameras with PTP mode
- > 10GigE data interface
- > Cable lengths up to 100 meters are possible
- > AOI (Area of Interest)
- > SDK for Windows (32/64 bit) and Linux available
- > 512 MB Memory
- > Dimensions [mm]: 80 x 80 x 64.6

Special Features of the CoaXPress SHR Series:

- > Power over CXP (PoCXP)
- > 512 MB Memory

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	10GigE		Camera Link		CoaXPress	
								max. Frame Rate [fps]		max. Frame Rate [fps]		max. Frame Rate [fps]	
shr461*	101.2	11,648 x 8,742	55 mm	Sony IMX461	3.76	CMOS	M72	8.7	-	-	-	-	8.7
shr661	127.6	13,392 x 9,528	56.73 mm	Sony IMX661	3.45	CMOS	M72	8.2	-	-	-	-	17
shr411*	151.2	14,192 x 10,640	66.7 mm	Sony IMX411	3.76	CMOS	M72	6.1	-	-	-	-	6.1

PoE versions on request, * Rolling Shutter; all 10GigE cameras with PTP mode



SWIR Cameras

UP TO 1.3 MP

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- BST BURST MODE TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL

SWIR Cameras

Short Wave Infrared (SWIR) sensors with the latest technology from Sony. The sensors impress with an extremely wide range of wavelength bandwidth. Safe inspection solutions in the glass, wafer and food sectors. Easy integration with GenCam industrial interface.

Typical applications: visualization of liquids or foreign materials, observation of transmission or temperature.

Special Features of our SWIR Cameras:

- > Small pixels, high sensitivity
- > Sensitive for wavelengths from 400 - 1,700 nm
- > Best homogeneity with high dynamic range

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	GigE		Camera Link		CoaXPress	
								max. Frame Rate [fps]		max. Frame Rate [fps]		max. Frame Rate [fps]	
exo991	0.3	640 x 512	1/4"	Sony IMX991	5	CMOS	C	260	-	-	-	-	NEW
exo990	1.3	1,280 x 1,024	1/2"	Sony IMX990	5	CMOS	C	93	-	-	-	-	NEW
fxo990	1.3	1,280 x 1,024	1/2"	Sony IMX990	5	CMOS	C	-	-	-	-	134	NEW



Polarized Cameras

UP TO 12.3 MEGAPIXEL

- LED INTEGRATED LED-CONTROLLERS
- SEQ INTEGRATED SEQUENCER
- STT SAFE TRIGGER TECHNOLOGY
- BST BURST MODE TECHNOLOGY
- PLC PROGRAMMABLE LOGIC CONTROL

POLARIZED Cameras

The Sony Polarsens sensors allow a safe and very fast inspection of non-metallic surfaces and structures that are otherwise difficult to solve. We provide the associated SDK. Typical applications: the inspection of surfaces, reflective materials and tension analysis.

Special Features of our POLARIZED Cameras:

- Simultaneous measurement of
- > degree of polarization
- > direction of polarization
- > intensity

Model	[MP]	Resolution [Pixel]	Format	Sensor	Pixel [µm]	Architecture	Mount	GigE		Camera Link		USB3	
								max. Frame Rate [fps]		max. Frame Rate [fps]		max. Frame Rate [fps]	
exo264	5	2,448 x 2,048	2/3"	Sony IMX264MZR	3.45	CMOS pol.	C	24.5	-	-	-	-	36
exo250	5	2,448 x 2,048	2/3"	Sony IMX250MZR	3.45	CMOS pol.	C	24.5	-	-	-	-	75
exo253	12.3	4,096 x 3,000	1.1"	Sony IMX253MZR	3.45	CMOS pol.	C	10	-	-	-	-	30

SVS-Vistek – the Partner for your Vision!

Light

Lenses

Compatibility

SDK / Platforms

Latest technology and multi-platform support

- > GenTL producer
- > Microsoft Windows
- > Linux
- > ARM / Jetson TX1 / TX2

Supported Features and Technologies:

- > VGA up to 151 MP
- > Global and Rolling Shutter CMOS sensors
- > CCD sensors with advanced Tap Balancing (manual or automatic)
- > Monochrome and Color Versions (Bayer Pattern)
- > White balance for color versions (one shot, continuous or manual)
- > programmable logic I/O functionality with timers
- > User-definable AOI (Area of Interest)
- > Decimation Modes for higher frame rates
- > Shading Correction
- > Defect Pixel Correction
- > Adjustable Gain and Offset
- > Auto-Exposure and Auto-Gain
- > Image Flip
- > Lookup Table (LUT)
- > Exposure controlled by Trigger, manually or automatically
- > 8, 10, 12 Bit (14 Bit on the ADC) or 16 Bit
- > Wide Range of Power Inputs: 10 - 25 V DC
- > Various Trigger (int./ext./free running) and Exposure Modes
- > Programmable Sequencer for shutter and strobe
- > Pulse-Width Strobe-Control
- > Logical Trigger Functions
- > Schmitt-Trigger (Debouncer)
- > Particle Image Velocimetry (PIV-Mode)
- > IP67
- > Built-in LED Controllers
- > Versatile I/O-Concept:
 - Configurable I/O-Matrix
 - up to 4 x Trigger Input
 - up to 4 x Power Output (open drain)
 - Differential RS-422 and serial RS-232 In- and Out-put
- > GigE or 10GigE Interface
- > Camera Link Interface
- > USB3 Interface
- > CoaXPress Interface
- > GigE Vision, USB3 Vision and GenCam Standard Compliant
- > Support for most Lens Mount Standards
- > Micro-Four-Thirds Bayonet (MFT) Standard supported
- > SDK for Windows (32/64 Bit) and Linux available
- > Intuitive Graphical User Interface
- > Power over Camera Link (PoCL)
- > Power over Ethernet (PoE) on request
- > Power over CoaXPress (PoCXP)



Hirose Pinout

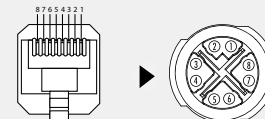
Pin	Signal ECO, ECO2, EVO	Signal EXO, FXO, HR, SHR	Signal 4 I/O for option ECO
1	V IN- (GND)	V IN- (GND)	V IN- (GND)
2	V IN+ (10 – 25V)	V IN+ (10 – 25V)	V IN+ (10 – 25V)
3	RxD (RS232) not available for PoE versions	IN 4 RxD (RS232)	not connected
4	TxD (RS232) not available for PoE versions	OUT 4 TxD (RS232)	not connected
5	IN 1 (0 – 24 V)	IN 1 (0 – 24 V)	IN 1 (0 – 24 V)
6	IN 2 (0 – 24 V)	IN 2 (0 – 24 V)	IN 2 (0 – 24 V)
7	OUT 1 (open drain)	OUT 1 (open drain)	OUT 1 (open drain)
8	OUT 2 (open drain)	OUT 2 (open drain)	OUT 2 (open drain)
9	IN 3+ (RS422)	IN 3+ (opto IN +)	IN 3 (0 – 24 V)
10	IN 3 – (RS422)	IN 3 – (opto IN –)	IN 4 (0 – 24 V)
11	OUT 3+ (RS422)	OUT 3 (open drain)	OUT 3 (open drain)
12	OUT 3 – (RS422)	OUT 0 (open drain)	OUT 4 (open drain)
	Shielding	Shielding	Shielding

M12-I/O Connector



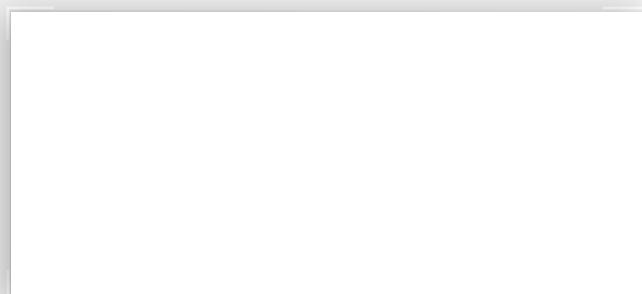
Pin	Color Code	Signal
1	brown	V IN+ (10 – 25V)
2	blue	V IN- (GND)
3	white	RxD (RS232) not available for PoE versions
4	green	TxD (RS232) not available for PoE versions
5	pink	IN 1 (0 – 24 V)
6	yellow	IN 2 (0 – 24 V)
7	black	OUT 1 (open Drain max. 24 V, 0.3 A)
8	grey	OUT 2 (open Drain max. 24 V, 0.3 A)
9	red	IN 3+ (RS422)
10	violet	IN 3 – (RS422)
11	grey / pink	OUT 3+ (RS422)
12	red / blue	OUT 3 – (RS422)
	yellow / green	Shielding

RJ45 to M12 Connector



Color Code	Pin RJ45	Pin M12
white / orange	1	1
orange	2	2
white / green	3	3
blue	4	8
white / blue	5	7
green	6	4
white / brown	7	5
brown	8	6

Our sales team will be pleased to assist you with expert advice. Please contact us.



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