



HR Camera Link

hr120CCL

Camera Link offers high data rates, deterministic time response and very direct access to the image sensor. This also enables industrial cameras with the highest resolutions, settings and operating modes that are not available with other interfaces.

The clear design, based on established standards (GenICam, GenTL), allows rapid integration into the application. The camera offers a wide range of industrial hardware and software features.

With its high resolutions, the HR series is ideal for surface control, quality control and flat panel inspection.

Technical Highlights

- Defect pixel correction
- LUT, gamma, offset
- ROI and binning (not for: hr49, hr65)
- Integrated multi-channel LED strobe controller
- Industrial TTL-24V I/O interface with SafeTrigger, programmable logic functions, sequencer, timer, RS232
- Power over Camera Link (PoCL)



Specifications

Resolution [MP]	122 MP
Resolution (h x v)	13272 x 9176 px
Frame rate (max.)	6.8 fps (1x10-1y) 5.5 fps (1x8-1y)
Chroma	color
Interface	Camera Link 80-Bit SDR

Sensor

Sensor	120MXSC
Manufacturer	Canon
Sensor type	Area CMOS
Shutter type	rolling shutter
Sensor size (h x v)	29.2 x 20.19 mm
Optical diagonal	35.5 mm
Sensor format	APS-H
Pixel size (h x v)	2.2 x 2.2 μm

Camera

Exposure modes	MANUAL;AUTO
Trigger modes	INTERNAL;SOFTWARE;EXTERNAL
Exposure time (min)	16 μs
Exposure time (max)	10 sec
Pixel format / max	bayer8, bayer10 / 10 bit
Gain modes / max	manual, auto / 8 dB
S/N ratio (max)	39.6 dB (dep. on environment)
Dynamic range (max)	60.3 dB (dep. on environment)
Pixel clock	85 MHz
Internal memory	512 MB SDRAM, 160 MB Flash

Feature Set

Manual white balance	yes
Automatic white balance	yes
AOI	yes
LUT	yes
Offset	yes
Binning	yes
Shading correction	yes (external)
Defect pixel correction	yes
Sequencer	yes

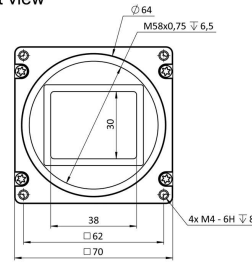
Housing

Lens mount	M58x0.75
Dimensions (w x h x d)	70 x 70 x 56.8 mm
Weight	380 g
Operating temperature (housing)	-10 to 55 $^{\circ}\text{C}$
Ambient humidity	10 to 90 % (non-condensing)
Protection class	IP40

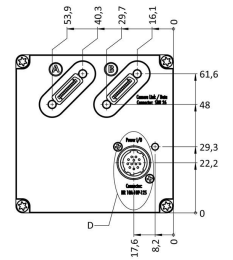
I/O-Interfaces

Input up to 24V	2 x
Input OPTO	1 x
Output open drain	4 x
I/O RS-232	1 x
Power supply	10 to 25 V (DC)
Power consumption	12 W (dep. on operating mode)

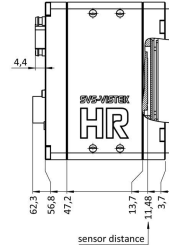
front view



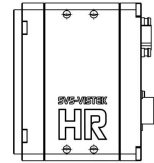
back view



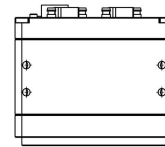
cross section



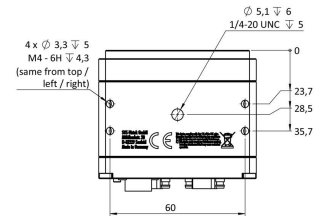
right view



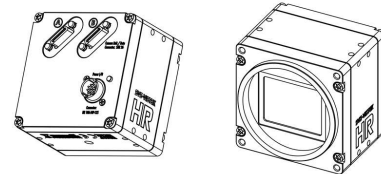
top view



bottom view

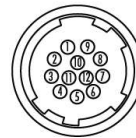


3D view



Pinout Mating Connector

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)

Spectral Response *



[Spectral Response](#)

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

