# hr120MCL

## HR Camera Link

Camera Link has its advantages regarding data transfer speed, a deterministic timing and a very direct access to the imaging sensor itself. Thus it permits settings and operating modes that are not available with other interfaces. HR series with Camera Link provides a wide range of unique camera core features.

A sophisticated I/O interface provides a rich choice of industrial hardware and software features, including a GenICam multi-channel LED strobe control. Best suited for applications such as optical metrology, surface control, quality control or monitoring of large areas.

## Technical Highlights

- User defined defect pixel correction
- Lens shading correction
- ROI, LUT, binning, gamma, offset
- 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)

SVS-Vistek GmbH - Ferdinand-Porsche-Str. 3 - 82205 Gilching - Germany - Telephone +49 8105 3987-60
Information accurate as to: 13.12.2023, errors and omissions excepted.

## HR Series hr120MCL

| | |
|---|---|
| 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 | mono |
| Interface | Camera Link 80-Bit |
| | SDR |

### Sensor

| | |
|---|---|
| Sensor | 120MXSM |
| 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) | 1 sec |
| Pixel format / max | mono8, mono10 / 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

| | |
|---|---|
| AOI | yes |
| LUT | yes |
| Offset | yes |
| Binning | yes |
| Shading correction | yes (external) |
| Defect pixel correction | yes |
| Sequencer | yes |

### Housing

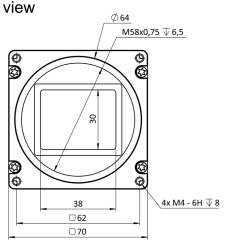
| | |
|---|---|
| Lens mount | M58x0.75 |
| Dimensions (w x h x d) | 70 x 70 x 56.8 mm |
| Weight | 380 g |
| Operating temperature (housing) | -10 to 55 °C |
| Ambient humidity | 10 to 90 % (non-condensing) |
| Protection class | IP40 |

### I/O-Interfaces

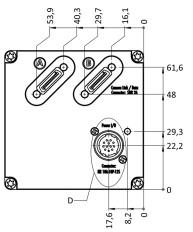
| | |
|---|---|
| Input up to 24V | 2 x |
| Input OPTO | 1 x |
| Output open drain | 4 x |
| I/O RS-232 | 1 x |
| Power supply | 10 to 25 V (DC) |
| Power consumption | 12 W (dep. on operating mode) |

## Dimensions [mm]

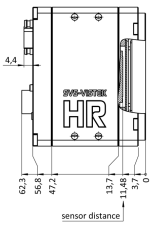
front view



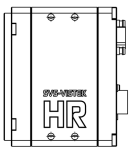

back view



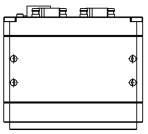

cross section



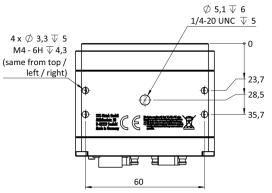

right view



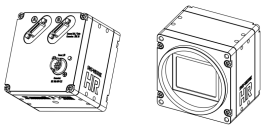
top view



bottom view

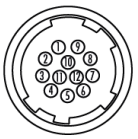



3D view



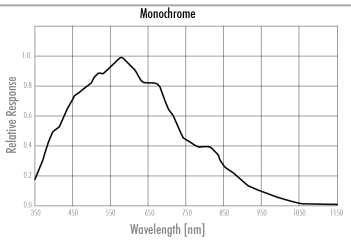
## Pinout Mating Connector

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 *




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