



# HR 10GigE

## hr387MXGE

### General

|                |           |
|----------------|-----------|
| Model          | hr387MXGE |
| Product code   | F004075   |
| Product series | HR 10GigE |
| Status         | Available |

### Sensor

|                                |                                                |
|--------------------------------|------------------------------------------------|
| Sensor type                    | Area scan                                      |
| Chroma                         | Mono                                           |
| Spectrum                       | Visible                                        |
| Spectral range                 | 400 nm to 1000 nm                              |
| Resolution                     | 5,440 × 3,076 (16.70 MP)                       |
| Sensor model                   | Sony IMX387                                    |
| Sensor architecture (material) | cmos                                           |
| Shutter type(s)                | global-shutter                                 |
| Sensor size                    | 18.77 × 10.61 mm (21.56 mm, 21.7mm (Type 4/3)) |
| Pixel size                     | 3.45 µm × 3.45 µm                              |

### Pixel formats

|                          |               |
|--------------------------|---------------|
| Sensor bit depth         | 8-Bit,12-Bit  |
| Monochrome pixel formats | mono8, mono12 |

### Timing and gain

|                 |                   |
|-----------------|-------------------|
| Max. frame rate | 56.4 fps          |
| Exposure time   | 21 µs to 60 s     |
| 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 over Ethernet (POE+, in option -P)                                                 |
| Power consumption           | External: 15.5 W (typical)                                                                            |

## Mechanical properties

|                                   |                              |
|-----------------------------------|------------------------------|
| Body dimensions (L x W x H in mm) | 80 × 70 × 70                 |
| Filter/protection glass           | N-BK7 - AR coating 380-850nm |
| IP class                          | IP30                         |
| Lens mount(s)                     | M58x0.75                     |
| Weight                            | 400 g                        |

## On-board memory and FPGA

|                             |           |
|-----------------------------|-----------|
| Image buffer (RAM)          | 448 MByte |
| Non-volatile memory (Flash) | 32 MByte  |

## Interfaces

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

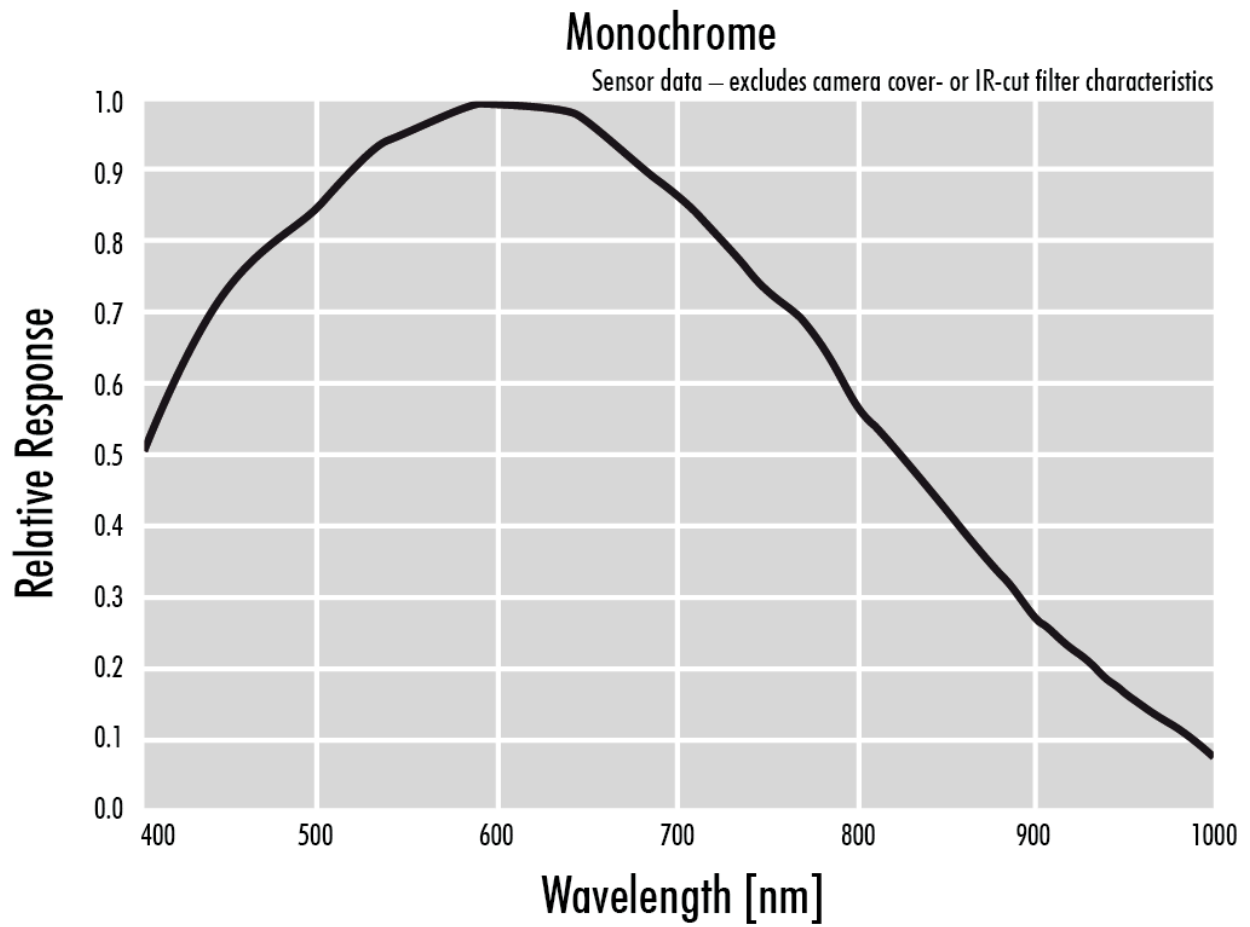
## FW features - image control

|                        |                             |
|------------------------|-----------------------------|
| Exposure modes         | Manual, Auto, External      |
| Gain modes             | Auto, Manual                |
| Image control features | FW Features - Image Control |

## FW features - camera control

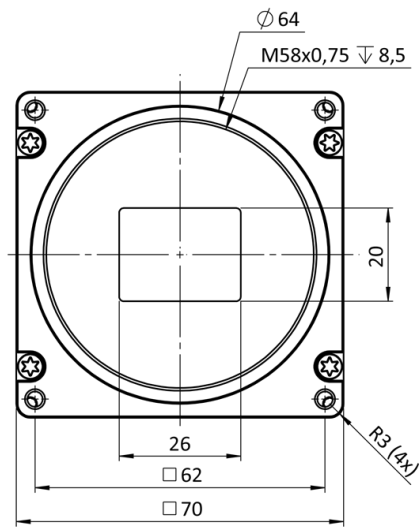
|                         |                                    |
|-------------------------|------------------------------------|
| Trigger modes/sync      | INTERNAL, SOFTWARE, EXTERNAL       |
| Camera control features | User Sets, POE, PWM(4), Sequencer, |

## Quantum Efficiency

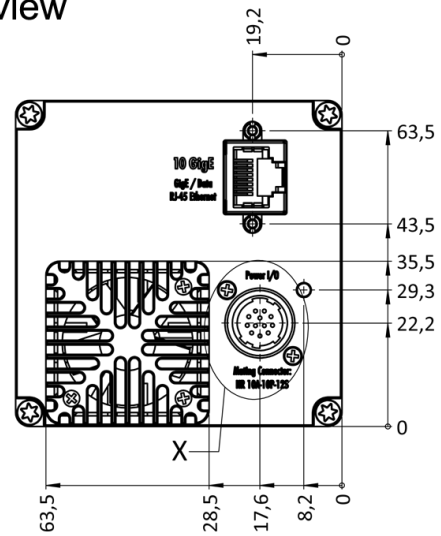


## Technical Drawing

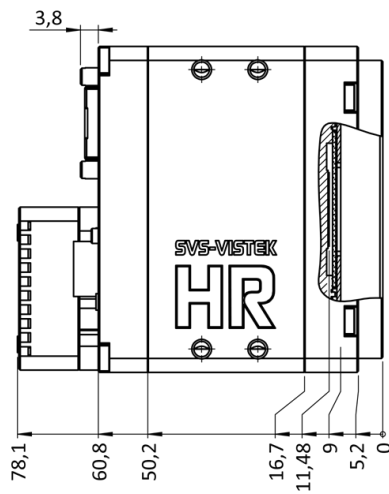
front view



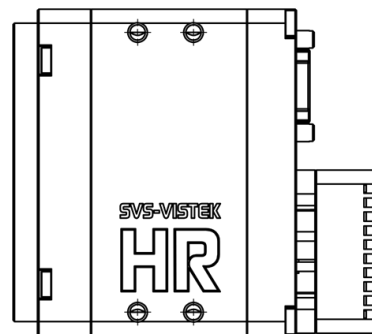
back view



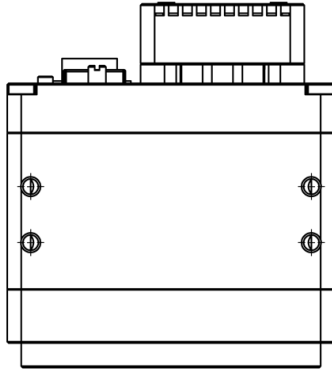
cross section



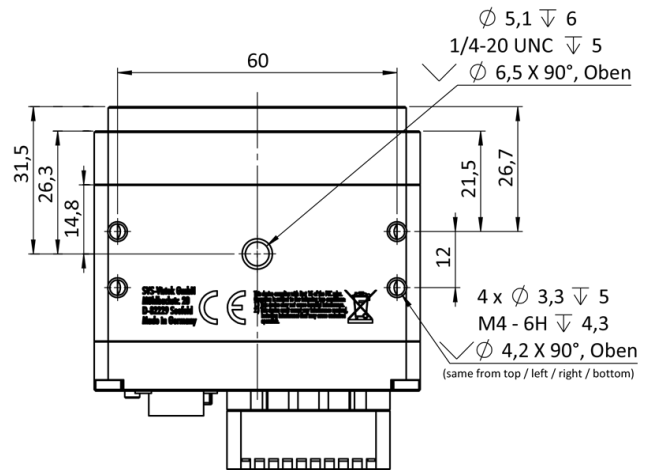
right view



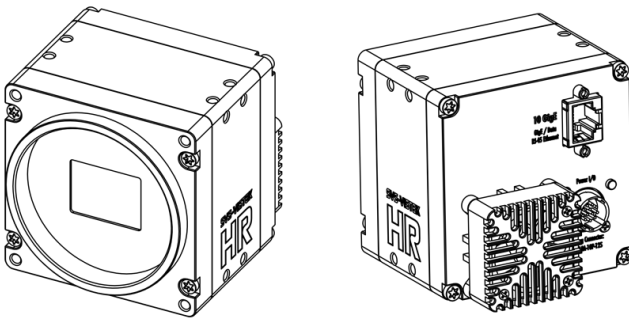
top view



bottom view



3D view



## I/O pin assignment



|   |       |                   |    |        |              |
|---|-------|-------------------|----|--------|--------------|
| 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) |