

# eco655CVGE67

ECO IP67 »BlackLine«



## Dust tight and protected against water in harmful quantity

Factory automation is dependent on reliable and efficient solutions. For this to happen, the components for machinery, controls and industrial image processing need to work in total harmony. SVS-VISTEK's "BlackLine"-standard makes it easier and more cost efficient to integrate the delicate image processing parts even in harsh environments.

The SVCam-ECO »BlackLine« is equipped with a waterproof housing and a M12 connector concept for industrial field wiring.

The SVCam ECO-series is compelling by virtue of its extremely compact design (38 x 38 x 33 mm) and offers the best value for money. The SVCam-ECO is small, robust, fit for the factory floor, manufactured with precision, safe to connect, offers an LED controller, is PLC ready and reliable.

## Technical Highlights

- > IP67 protection class (including lens tube)
- > progressive scan sensor
- > 2 x outputs for direct drive and control of LED lighting
- > up to 120 MB/s data rate
- > GigE Vision and GenICam-Standards compliant
- > Industrial I/O interface for easy Integration
- > large range of Software and Algorithms
- > broadcast-safe

## ECO Series

## eco655CVGE67

|                     |                           |
|---------------------|---------------------------|
| Resolution          | 2448 x 2050 px            |
| Frame rate (max.)   | 10 fps                    |
| Chroma              | color                     |
| Interface           | GigE Vision               |
| <b>Sensor</b>       |                           |
| Sensor              | ICX655AQA                 |
| Manufacturer        | Sony                      |
| Sensor type         | Area CCD                  |
| Shutter type        | global shutter            |
| Sensor architecture | interline transfer        |
| Readout type        | progressive scan          |
| Sensor size (h x v) | 8.45 x 7.07 mm            |
| Optical diagonal    | 11.02 mm                  |
| Sensor format       | 2/3"                      |
| Pixel size (h x v)  | 3.45 x 3.45 $\mu\text{m}$ |

### Camera

|                     |                             |
|---------------------|-----------------------------|
| Exposure modes      | MANUAL;AUTO;EXTERNAL        |
| Trigger modes       | INTERNAL;SOFTWARE;EXTERNAL  |
| Exposure time (min) | 7 $\mu\text{s}$             |
| Exposure time (max) | 60 sec (external $\infty$ ) |
| Pixel format / max  | bayer8, bayer12 / 12 bit    |
| Gain modes / max    | manual, auto / 18 dB        |
| Dynamic range (max) | 58 dB (dep. on environment) |
| Internal memory     | 64 MB SDRAM, 8 MB Flash     |

### Feature Set

|                      |     |
|----------------------|-----|
| Manual white balance | yes |
| AOI                  | yes |
| LUT                  | yes |
| Offset               | yes |
| Readout control      | yes |
| Binning              | yes |
| Image flip           | yes |
| Sequencer            | yes |

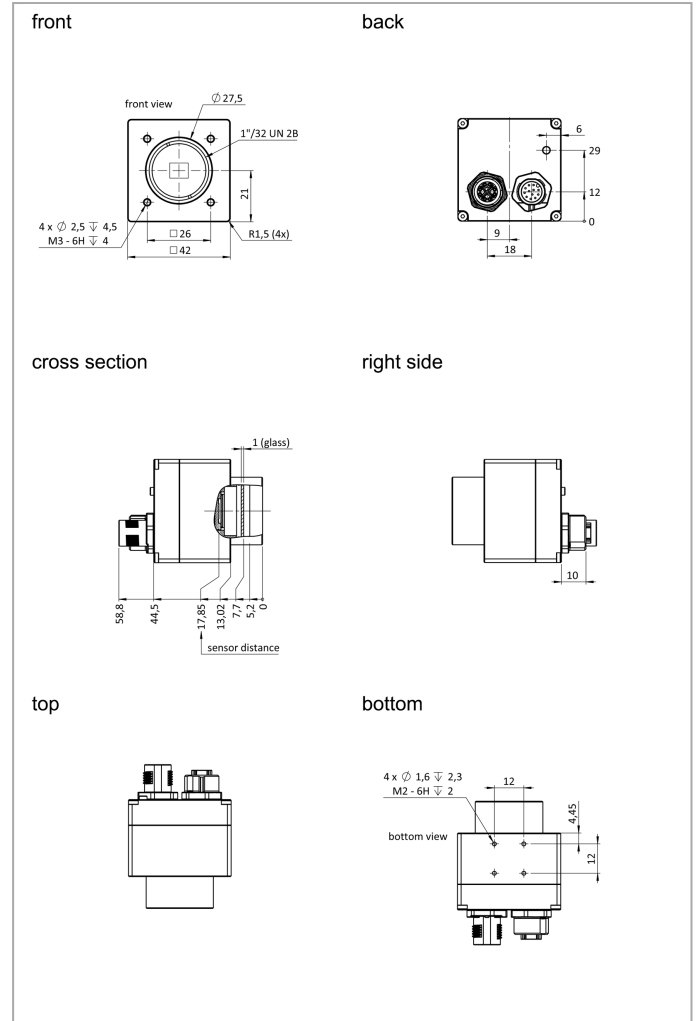
### Housing

|                        |                              |
|------------------------|------------------------------|
| Lens mount             | C-Mount                      |
| Dimensions (w x h x d) | 42 x 42 x 31.5 mm            |
| Weight                 | 120 g                        |
| Ambient temperature    | -10 to 45 $^{\circ}\text{C}$ |
| Ambient humidity       | 10 to 90 % (non-condensing)  |
| Protection class       | IP67                         |

### I/O-Interfaces

|                   |                                |
|-------------------|--------------------------------|
| Input up to 24V   | 2 x                            |
| Output open drain | 2 x                            |
| I/O RS-232        | 1 x                            |
| I/O RS-422        | 1 x                            |
| Power supply      | 10 to 25 V (DC)                |
| Power consumption | 4.5 W (dep. on operating mode) |

## Dimensions [mm]



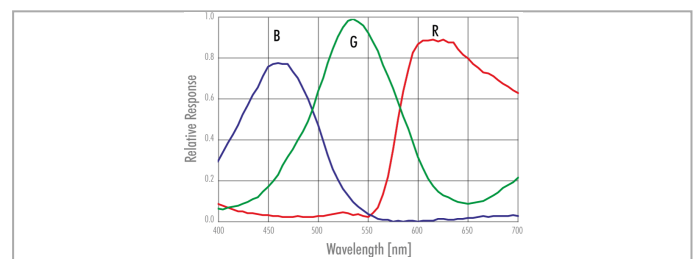
## Pinout Mating Connector

| Pin | Color Code     | Signal                                     |
|-----|----------------|--|
| 1   | brown          | V IN+ (10 - 25V)                           |
| 2   | blue           | V IN- (GND)                                |
| 3   | white          | RxD (RS232) not available for Pro versions |
| 4   | green          | TxD (RS232) not available for Pro 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                                  |

| 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       |

## Spectral Response \*



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