



# FXO CoaXPress

## fxo542CCX

### General

|                |               |
|----------------|---------------|
| Model          | fxo542CCX     |
| Product code   | F002089       |
| Product series | FXO CoaXPress |
| Status         | Available     |

### Sensor

|                                |                                      |
|--------------------------------|--------------------------------------|
| Sensor type                    | Area scan                            |
| Chroma                         | Color                                |
| Spectrum                       | Visible                              |
| Spectral range                 | 400 nm to 1000 nm                    |
| Resolution                     | 5,312 × 3,032 (16.10 MP)             |
| Sensor model                   | Sony IMX542                          |
| Sensor architecture (material) | cmos                                 |
| Shutter type(s)                | Global shutter (GS)                  |
| Sensor size                    | 14.55 × 8.31 mm (16.76 mm, Type 1.1) |
| Pixel size                     | 2.74 μm × 2.74 μm                    |

### Pixel formats

|                   |                 |
|-------------------|-----------------|
| Sensor bit depth  | 8-bit, 12-bit   |
| RGB pixel formats | bayer8, bayer12 |

### Imaging performance

|               |         |
|---------------|---------|
| Dynamic range | 72 dB   |
| SNR           | 39.1 dB |

## Timing and gain

|                 |                    |
|-----------------|--------------------|
| Max. frame rate | 45.6 fps           |
| Exposure time   | 10 $\mu$ s 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,                                               |
| I/O connector               | 12-pin Hirose HR10A-10P-12S                                                                           |
| Power supply                | 10 to 25VDC, Power over CoaXPress                                                                     |
| Power consumption           | External: 9 W (typical)                                                                               |

## Operating conditions

|                                 |                 |
|---------------------------------|-----------------|
| Operating temperature (housing) | -10 °C to 65 °C |
|---------------------------------|-----------------|

## Mechanical properties

|                                   |              |
|-----------------------------------|--------------|
| Body dimensions (L x W x H in mm) | 70 x 50 x 50 |
| Filter/protection glass           | IR-Cut 680   |
| IP class                          | IP30         |
| Lens mount(s)                     | C-Mount      |
| Weight                            | 240 g        |

## On-board memory and FPGA

|                             |          |
|-----------------------------|----------|
| Non-volatile memory (Flash) | 32 MByte |
|-----------------------------|----------|

## Interfaces

|                     |                          |
|---------------------|--------------------------|
| Digital interface   | cxp-12 with 1 connection |
| Interface connector | (micro-BNC)              |
| Vision standard     | CoaXPress 2.0            |

## FW features - image control

|                |                        |
|----------------|------------------------|
| Exposure modes | manual, auto, external |
| Gain modes     | auto, manual           |

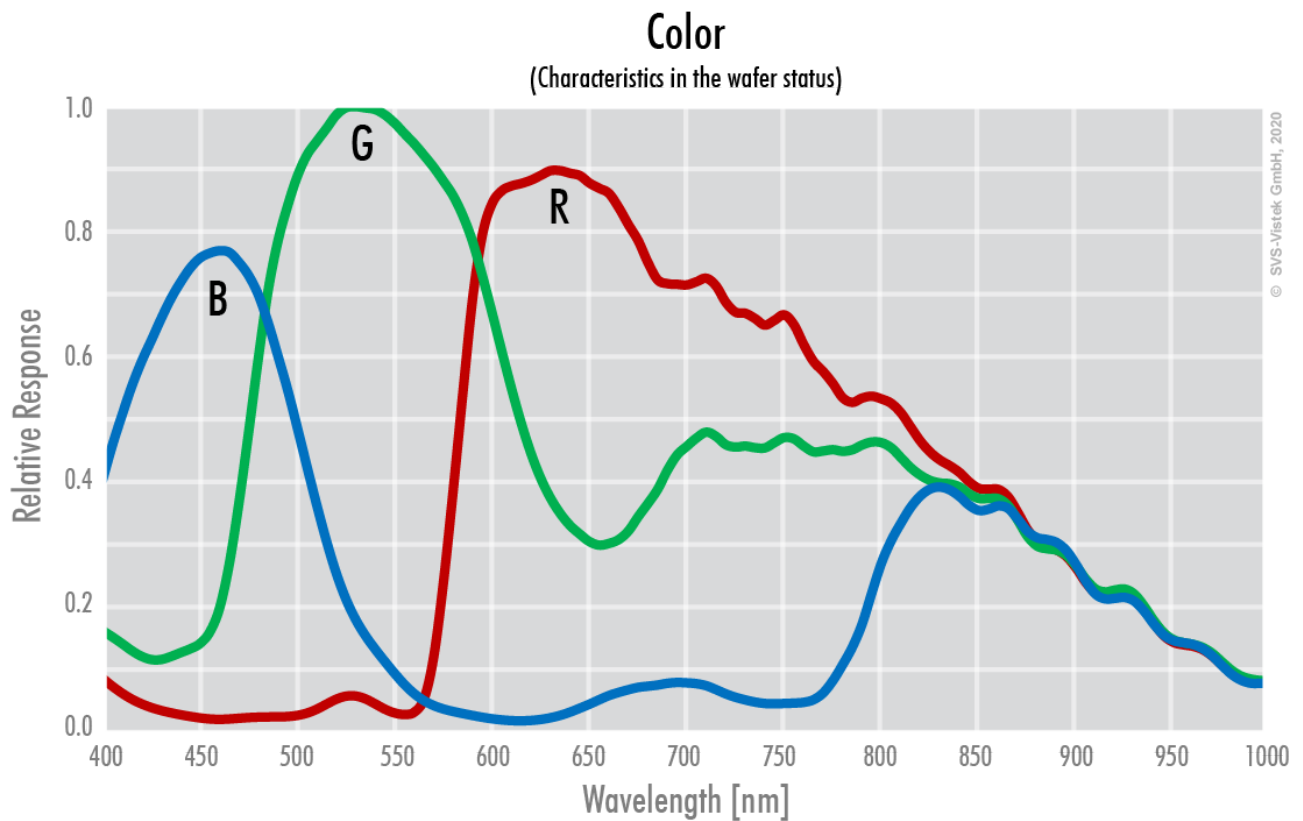
## FW features - image control

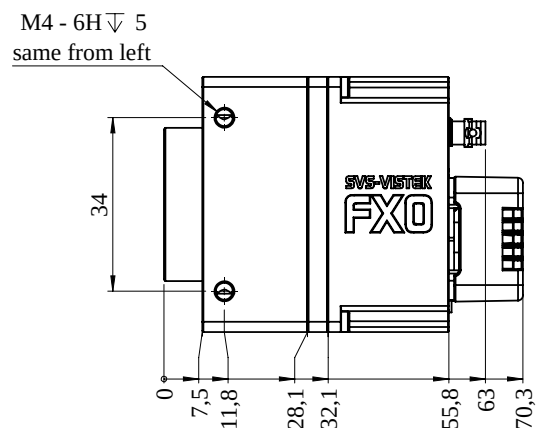
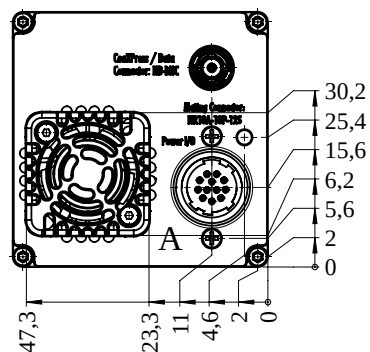
|                        |                        |
|------------------------|------------------------|
| White balance modes    | auto, manual           |
| Image control features | roi, lut, mirror-image |

## FW features - camera control

|                         |                                      |
|-------------------------|--------------------------------------|
| Trigger modes/sync      | internal, software, external         |
| Camera control features | PoCxP, User Sets, PWM(4), Sequencer, |

## Quantum Efficiency

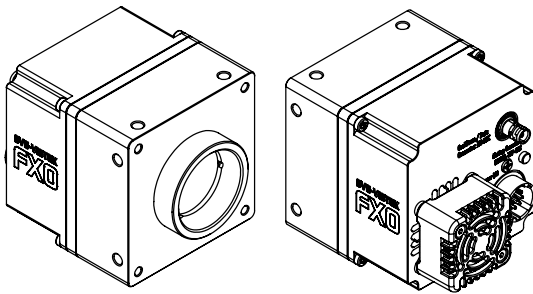
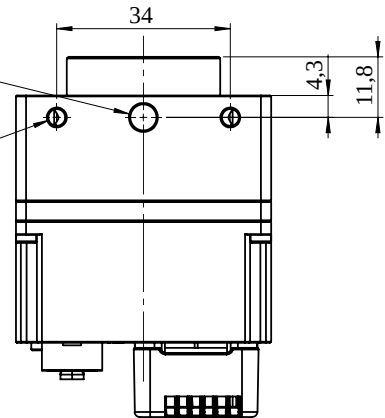






1/4 - 20 UNC  
▽ 5,0

M4 - 6H ▽ 5  
same from top



## I/O pin assignment



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) |