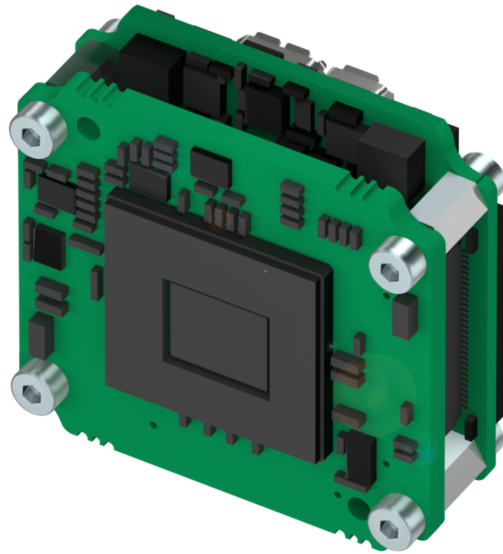


MATRIX VISION Industrial Cameras  
mvBlueFOX3-2 Series – Board-level



**BVS CA-SF2-xxxxxx-(1)(2)(3)(4)(5)(6)-001**

**mvBlueFOX3-M2 / BVS CA-SF2-xxxxxx-(1)(2)(3)(4)(5)(6)-001**  
USB3 Vision board-level camera

**xxxxxx Model**  
See table below

**(1) Handling**  
1 = Standard handling  
2 = Extended temperature range test

**(2) Lensholder**  
0 = Without lensholder  
1 = C-Mount, Type2, with high durability and factory-set backfocus, fixed square filter  
2 = C-Mount, Type1, with adjustable backfocus, round filter with screw ring, Ø23.2 mm  
B = C-Mount, Type2, high durability, filter screwable  
Y = S-Mount, 13 mm length

**(3) Filter**  
0 = Without filter

**(4) Housing**  
0 = Without housing  
5 = Mounting and thermal conduction plate for board level camera

**(5) I/O**  
0 = Without digital I/Os  
2 = Standard I/Os

**(6) Software**  
0 = None

**MATRIX VISION Industrial Cameras**  
**mvBlueFOX3-2 Series – Board-level**



Balluff model name	Model name	Resolution	FPS*	Sensor	Pixel size
BVS CA-SF2-	mvBlueFOX3-M2				
0004FG/C	004G/C	0.4 MP (728 x 544)	436.9/436.9	IMX287 (1/2.9", GS, CMOS)	6.9 µm
0016ZG/C	016G/C	1.6 MP (1456 x 1088)	226.5/226.5	IMX273 (1/2.9", GS, CMOS)	3.45 µm
0017ZG/C	017G/C	1.7 MP (1600 x 1104)	213.2/213.2	IMX425 (1.1", GS, CMOS)	9 µm
0024ZG/C	024G/C	2.4 MP (1936 x 1216)	164/161.4	IMX174 (1/1.2", GS, CMOS)	5.86 µm
0024AG/C	024aG/C	2.4 MP (1936 x 1216)	46.9/46.9	IMX249 (1/1.2", GS, CMOS)	5.86 µm
0032ZG/C	032G/C	3.2 MP (2064 x 1544)	123/119.2	IMX252 (1/1.8", GS, CMOS)	3.45 µm
0032AG/C	032aG/C	3.2 MP (2064 x 1544)	55/55	IMX265 (1/1.8", GS, CMOS)	3.45 µm
0051ZG/C	051G/C	5.1 MP (2464 x 2056)	80/75	IMX250 (2/3", GS, CMOS)	3.45 µm
0051PG/C	051pG/C	5.1 MP (2464 x 2056)	80/75	IMX250_POL (2/3", GS, CMOS)	3.45 µm
0051AG/C	051aG/C	5.1 MP (2464 x 2056)	35/35	IMX264 (2/3", GS, CMOS)	3.45 µm
0051DG/C	051dG/C	5.1 MP (2472 x 2064)	74.0/74.0	IMX547 (1/1.8", GS, CMOS)	2.74 µm
0064ZG/C	064G/C	6.4 MP (3096 x 2080)	60/59	IMX178 (1/1.8", RS, CMOS)	2.4 µm
0071ZG/C	071G/C	7.1 MP (3216 x 2208)	60.2/53.5	IMX420 (1.1", GS, CMOS)	4.5 µm
0071AG/C	071aG/C	7.1 MP (3216 x 2208)	50.9/50.9	IMX428 (1.1", GS, CMOS)	4.5 µm
0081AG/C	081aG/C	8.1 MP (2856 x 2848)	48.0/46.7	IMX546 (2/3", GS, CMOS)	2.74 µm
0089ZG/C	089G/C	8.9 MP (4096 x 2176)	47/42.6	IMX255 (1", GS, CMOS)	3.45 µm
0089AG/C	089aG/C	8.9 MP (4096 x 2176)	31.9/31.9	IMX267 (1", GS, CMOS)	3.45 µm
0124ZG/C	124G/C	12.3 MP (4096 x 3008)	34/30.8	IMX253 (1.1", GS, CMOS)	3.45 µm
0124AG/C	124aG/C	12.3 MP (4096 x 3008)	23/23	IMX304 (1.1", GS, CMOS)	3.45 µm
0124RG/C	124rG/C	12.4 MP (4064 x 3044)	35.4/30.7	IMX226 (1/1.7", RS, CMOS)	1.85 µm
0124DG/C	124dG/C	12.4 MP (4128 x 3008)	33.0/30.6	IMX545 (1/1.1", GS, CMOS)	2.74 µm
0162AG/C	162G/C	16.2 MP (5328 x 3040)	26.3/23.4	IMX542 (1.1", GS, CMOS)	2.74 µm
0204AG/C	204G/C	20.4 MP (4512 x 4512)	20.9/18.6	IMX541 (1.1", GS, CMOS)	2.74 µm
0205ZG/C	205G/C	20.5 MP (5544 x 3692)	21.98/18.5	IMX183 (1", RS, CMOS)	2.4 µm
0246AG/C	246G/C	24.6 MP (5328 x 4608)	17.6/15.4	IMX540 (1.2", GS, CMOS)	2.74 µm

G/C = Monochrome and color models available  
 FPS = Frames per Second  
 GS = Global Shutter  
 RS = Rolling Shutter  
 \* = Burst Mode/Streaming

# MATRIX VISION Industrial Cameras mvBlueFOX3-2 Series – Board-level



## Basic features

<b>Approval/Conformity</b>	CE UKCA EAC WEEE
<b>Standards</b>	GenICam EMVA 1288 USB3 Vision
<b>Version</b>	USB3 Vision industrial camera

## Electrical connection

<b>Connection 1</b>	USB3: MicroB-Female, 9-pin
<b>Connection 2</b>	Optional: Power / IO: HIROSE-Male, 12-pin
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	no

## Electrical data

<b>Current draw max.</b>	500 mA
<b>Operating voltage Ub</b>	10...28 VDC

## Environmental conditions

<b>Ambient temperature</b>	0...45 °C
<b>EN 60068-2-27, Shock</b>	-
<b>EN 60068-2-6, Vibration</b>	-
<b>Relative humidity</b>	20...80%
<b>Storage temperature</b>	-20...60 °C

## Remarks

Not included in scope of delivery: Camera lens, filter, light, connection cable, power supply

\* Refer to manual for exact values

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

## Functional Characteristics

<b>Binning</b>	1x1...16x16 *
<b>Data storage</b>	256 MB
<b>Decimation</b>	1x1...16x16 *
<b>Exposure time</b>	10 µs...20 s *
<b>Filter</b>	IR cut filter
<b>Image formats</b>	Mono8...Mono16 Bayer8...Bayer16, RGB, YUV *
<b>Trigger Modi</b>	Free run Hardware trigger Software trigger

## Interface

<b>Interface</b>	USB 2.0 / 3.0
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## Material

<b>Housing material</b>	Aluminium, Powder coated, Painted
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## Mechanical data

<b>Dimension</b>	40 x 40 x 50.9 mm
<b>Lens mount</b>	None
<b>Weight</b>	110 g

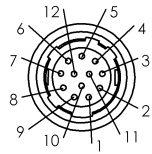
**MATRIX VISION Industrial Cameras**  
**mvBlueFOX3-2 Series – Board-level**

**Connector Diagramm**

USB3 (MicroB)



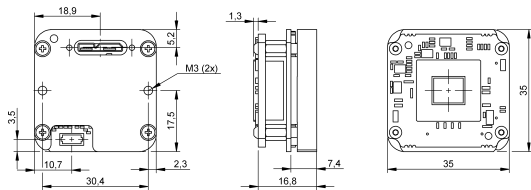
Power / IO (Hirose) - optional



- PIN 1: GND
- PIN 2: PWR\_IN
- PIN 3: Opto DigOut3
- PIN 4: Opto DigIn0
- PIN 5: Opto DigOut2
- PIN 6: Opto DigOut0
- PIN 7: Opto DigIn\_GND
- PIN 8: RS232 RX
- PIN 9: RS232 TX
- PIN10: Opto DigOut\_PWR\_IN
- PIN11: Opto DigIn1
- PIN12: DigOut1

**Product View**

BVS\_CA-SF2-xxxxxx-x00500



BVS\_CA-SF2-xxxxxx-x1x02x

