



**GEN<i>i>CAM** **GIG**<sup>®</sup>  
VISION

**BVS CA-GT1-xxxxxx-(1)(2)(3)(4)(5)(6)-001**

BVS CA-GT1-xxxxxx-(1)(2)(3)(4)(5)(6)-001 /  
mvBlueCOUGAR-XT  
10GigE Vision industrial camera

xxxxxx Model  
See table below

(1) Handling  
1 = standard handling

(2) Lensholder  
1 = C-Mount, Type2, with high durability and factory-set  
backfocus, fixed square filter

(3) Filter  
0 = without filter  
1 = IR-Cut  
2 = glass filter  
More filters on request

(4) Housing  
1 = standard housing, black with logo, aluminium  
F = standard housing black with fan, aluminium

(5) I/O  
4 = opto isolated IN, high side switch Out, M12 connectors

(6) Software  
0 = none

Model name	Resolution	FPS*	Sensor	Pixel size	Power**
BVS CA-GT1-					
0051BG/C	5.1 MP (2464 x 2064)	221.7/221.7	IMX537 (1/1.8", GS, CMOS)	2.74 µm	18.7 W
0081ZG/C	8.1 MP (2848 x 2848)	147.4/147.4	IMX536 (2/3", GS, CMOS)	2.74 µm	19.2 W
0124BG/C	12.4 MP (4128 x 3008)	101.8/99.5	IMX535 (1/1.1", GS, CMOS)	2.74 µm	19.0 W
0162ZG/C	16.2 MP (5328 x 3040)	81.1/76.3	IMX532 (1.1", GS, CMOS)	2.74 µm	18.5 W
0204ZG/C	20.4 MP (4512 x 4512)	64.3/60.7	IMX531 (1.1", GS, CMOS)	2.74 µm	18.5 W
0246ZG/C	24.6 MP (5328 x 4608)	54.3/50.3	IMX530 (1.2", GS, CMOS)	2.74 µm	19.5 W

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

## Basic features

<b>Standards</b>	EMVA 1288 GigE Vision GenICam IEEE 802.3at PTP IEEE1588 (Master / Slave)
------------------	--

## Electrical connection

<b>Connection 1</b>	10GigE-Bus: M12x1-Female, 8-pin, X-coded
<b>Connection 2</b>	Power/ IO: M12x1-Male, 12-pin, A-coded
<b>Connection 3</b>	Multipurpose IO: M8x1-Female, 8-pin, A-coded
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	yes

## Electrical data

<b>Current draw peak</b>	1.5 A
<b>Operating voltage <math>U_b</math></b>	16...28 VDC or PoE+ (IEEE 802.3at)
<b>Ripple max. (% of <math>U_e</math>)</b>	5 %

## Environmental conditions

<b>Ambient temperature</b>	0...45 °C
<b>EN 60068-2-27, Shock</b>	100 G, half-sine, 1000 pos., 1000 neg., X, Y, Z
<b>EN 60068-2-6, Vibration</b>	15 G, 10 - 500 Hz, 5h X, Y, Z
<b>IP rating</b>	IP67, (without fan)
<b>Relative humidity</b>	20...80%
<b>Storage temperature</b>	-20...60 °C

## Remarks

Not included in scope of delivery: Camera lens, 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>	Horizontal and vertical
<b>Data storage</b>	2048 MB
<b>Decimation</b>	Horizontal and vertical
<b>Exposure time</b>	10 µs...20 s *
<b>Filter</b>	IR cut filter, other filters on request
<b>Image formats</b>	Mono8...Mono16 Bayer8...Bayer16 *
<b>Trigger Modi</b>	Free run Hardware trigger Software trigger

## Interface

<b>Digital inputs</b>	4x PNP galvanically isolated
<b>Digital outputs</b>	4x PNP high side
<b>Interface</b>	Gigabit Ethernet, POE 10G / 5G / 2.5G / 1G Base-T Ethernet PoE+ 4x bidirectional: input (not isolated) / output (high side or open drain) RS232

## Material

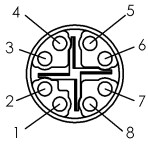
<b>Housing material</b>	Aluminium, Powder coated
-------------------------	--------------------------

## Mechanical data

<b>Lens mount</b>	C-Mount, other types on request
<b>Weight</b>	480 g (without fan)

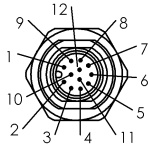
## Connector Diagram

### 10GigE-Bus (M12)



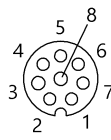
PIN 1: BL\_DA+  
PIN 2: BL\_DA-  
PIN 3: BL\_DB+  
PIN 4: BL\_DB-  
PIN 5: BL\_DD+  
PIN 6: BL\_DD-  
PIN 7: BL\_DC-  
PIN 8: BL\_DC+

### Power / IO (M12)



PIN 1: PWR\_IN  
PIN 2: GND  
PIN 3: DigOut3  
PIN 4: Opto DigIn0  
PIN 5: DigOut2  
PIN 6: DigOut0  
PIN 7: Opto DigIn\_GND  
PIN 8: Opto DigIn2  
PIN 9: Opto DigIn3  
PIN10: DigOut\_PWR\_IN  
PIN11: Opto DigIn1  
PIN12: DigOut1

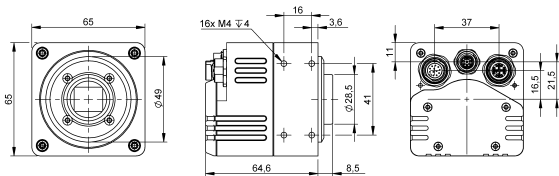
### Multipurpose IO (M8)



PIN 1: Bidirectional I/O0  
PIN 2: Bidirectional I/O1  
PIN 3: RS232 RX  
PIN 4: RS232 TX  
PIN 5: Bidirectional I/O2  
PIN 6: Bidirectional I/O3  
PIN 7: GND  
PIN 8: PWR\_OUT

## Product View

### BVS CA-GT1-xxxxxx-x1x14x



### BVS CA-GT1-xxxxxx-x1xF4x

