INDUSTRIAL/MACHINE VISION APPLICATIONS

FLIR BLACKFLY ® S

P/N CFGM–160M/C

SMALL PACKAGE, POWERFUL RESULTS

The Blackfly S is a compact, high performance machine vision camera that allows designers to easily produce the exact images they need. With both automatic and precise manual control over image capture and on-camera pre-processing, the Blackfly S accelerates application development.

FEATURES

THE LATEST CMOS SENSORS
Switch between high sensitivity and low noise, and high saturation capacity and dynamic range with selectable conversion gain.

IMPROVE CYCLE TIMES
Automate more with advanced camera controls, event notifications, chunk data, counters and timers.

ACCELERATE YOUR TIME TO MARKET
FLIR's GenICam3 API with GUI library, and detailed event logging is supported by comprehensive documentation.

APPLICATIONS

AUTOMATED OPTICAL INSPECTION

MICROSCOPY

ROBOT GUIDANCE

LASER BEAM PROFILING

AUTONOMOUS VEHICLE GUIDANCE

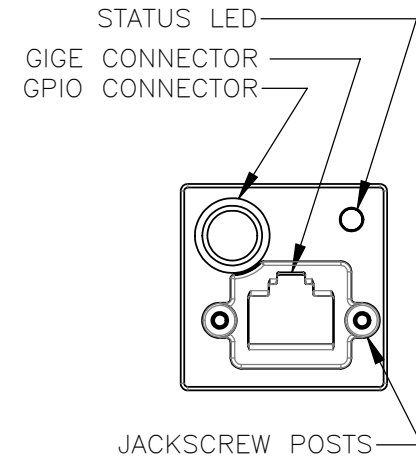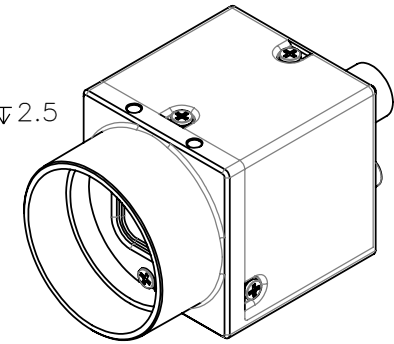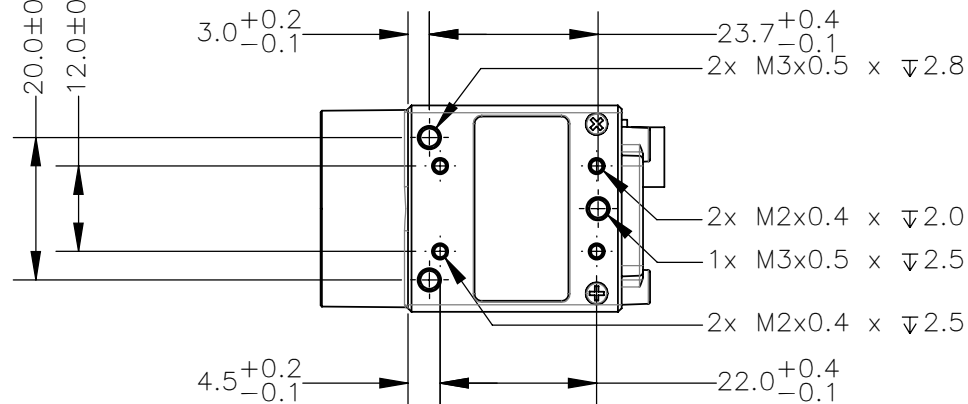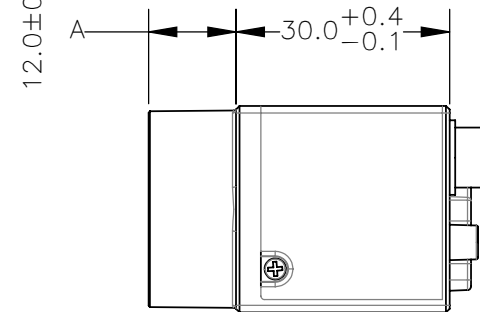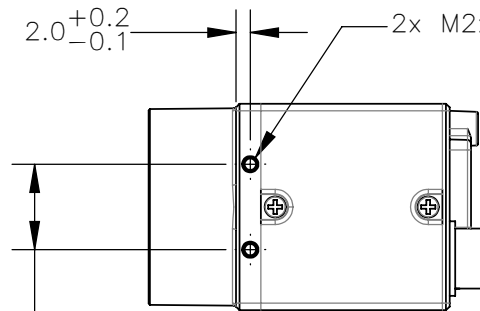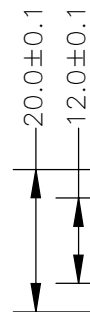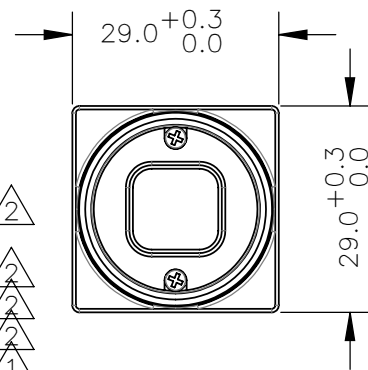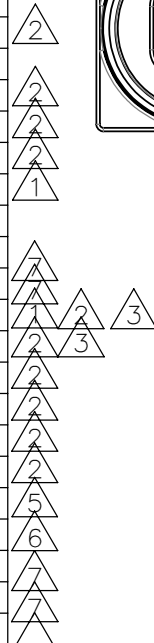| SPECS	CFGM-160M	CFGM-160C
Resolution	1440 x 1080	
Frame Rate*	78 FPS	
Megapixels	1.6 MP	
Chroma	Mono	Color
Sensor	Sony IMX273, CMOS, 1/2.9"	
Readout Method	Global shutter	
Pixel Size	3.45 μm	
Lens Mount	Sold separately	
ADC	10-bit, 12-bit	
Minimum Frame Rate**	1 FPS	
Gain Range**	0 to 47 dB	
Exposure Range**	21 us to 30 s	
Acquisition Modes	Continuous, Single Frame, Multi Frame	
Partial Image Modes	Pixel binning, decimation, ROI	
Image Processing	Gamma, lookup table, and sharpness	Color correction matrix, gamma, lookup table, saturation, and sharpness
Sequencer	Up to 8 sets using 6 features	
Image Buffer	240 MB	
User Sets	2 user configuration sets for custom camera settings	
Flash Memory	1 MB non-volatile memory	
Non-isolated I/O	4 bi-directional	
Serial Port	Supported	
Auxiliary Output	3.3 V, 120 mA maximum	
Interface	GigE	
Interface Connector	Hirose TF38 FPC connector	
Power Requirements	5 V via GPIO	
Power Consumption	2 W maximum	
Dimensions/Mass	29 mm x 29 mm x 10 mm / 10 g	
Machine Vision Standard	GigE Vision v1.2	
Compliance	CE, FCC, RoHS, REACH. The ECCN for this product is: EAR099.	
Temperature	Operating: 0ºC to 50ºC Storage: -30ºC to 60ºC	
Humidity	Operating: 20% to 80% (no condensation) Storage: 30% to 95% (no condensation)	
Warranty	3 years	

*Frame rates are measured with Device Link Throughput Limit of 125 MBps and Acquisition Frame Rate disabled. Values are rounded down to whole numbers.

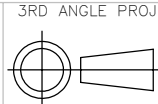**Values are the same in binning and no binning modes.

HOURS
www.hours-web.com

STATUS LED
GIGE CONNECTOR
GPIO CONNECTOR
JACKSCREW POSTS

2x M2x0.4 x ⊽2.5

2.0 +0.2 −0.1
12.0±0.1
29.0 +0.3 0.0
29.0 +0.3 0.0
30.0 +0.4 −0.1

BARREL LENGTH − "A" (+0.10/−0.15)			
SENSOR	C−MOUNT	CS−MOUNT	
ICX204	12.30	−	
ICX424	12.30	7.27	⚠2
ICX267	12.30	−	
ICX274	12.30	7.27	⚠2
ICX692	−	7.27	⚠2
ICX693	−	7.27	⚠2
ICX445	12.30	7.27	⚠1
ICX655	12.30	−	
ICX414	−	7.27	⚠7
ICX618	12.30	−	⚠7
EV76C560	−	6.94	⚠1 ⚠2 ⚠3
EV76C570	−	6.94	⚠2 ⚠3
IMX104	−	6.72	⚠2
IMX136	−	6.72	⚠2
AR0134	−	6.45	⚠2
MT9P	−	6.45	⚠2
RJ32	12.30	−	⚠5
RJ33	−	7.083	⚠6
IMX264	11.83	−	⚠7
IMX265	11.83	−	⚠7
P1300	12.06		⚠7

20.0±0.1
12.0±0.1
3.0 +0.2 −0.1
23.7 +0.4 −0.1
2x M3x0.5 x ⊽2.8
2x M2x0.4 x ⊽2.0
1x M3x0.5 x ⊽2.5
2x M2x0.4 x ⊽2.5
4.5 +0.2 −0.1
22.0 +0.4 −0.1

CFGM-160M

CFGM-160C