

**INDUSTRIAL/MACHINE VISION APPLICATIONS****FLIR BLACKFLY<sup>®</sup> S**

P/N BFS-PGE-123S6P

**ENABLE NEW APPLICATIONS WITH ON-CAMERA POLARIZING FILTERS**

This 12 MP model with its on-camera polarization is well suited for applications dealing with reflective and/or challenging lighting conditions. Ideal for use cases like traffic systems, UAS (unmanned aerial systems), inspection lines with transparent or reflective parts, and other uncontrolled lighting environments. In addition to the Blackfly S' rich feature set, the Spinnaker SDK provides an easy-to-use glare reduction feature making application development and deployment fast and easy. The GigE interface enables a global shutter readout at 10 FPS, or up to 14 FPS with Lossless Compression enabled. Note: on-camera polarization is also available in a 5 MP variant, please see the BFS-PGE-51S5PC-C.

<https://www.flir.com/products/blackfly-s-gige/?model=BFS-PGE-123S6P-C>

**FEATURES**

Dynamically remove reflections from multiple light sources to improve the contrast of transparent and reflective objects.

FLIR's Spinnaker SDK supports visualization and output of polarimetric image data.

Automate more with advanced camera controls, event notifications, chunk data, counters and timers. Increase system output without compromising quality using our Lossless Compression (LLC) feature.

**APPLICATIONS**

SURFACE INSPECTION

QUALITY INSPECTION OF  
COMPOSITE MATERIALSOUTDOOR APPLICATIONS INCLUDING TRAFFIC  
MONITORING AND UAVSMEASURING INTERNAL STRESSES IN  
PLASTIC PARTS

SPECS	BFS-PGE-123S6P
Resolution	4096 x 3000
Frame Rate	10 FPS / 14 FPS with Lossless Compression
Megapixels	12.3 MP
Chroma	Polarized Mono
Sensor	Sony IMX253, CMOS, 1.1"
Readout Method	Global shutter
Pixel Size	3.45 $\mu$ m
Lens Mount	C-mount
ADC	10-bit / 12-bit
Minimum Frame Rate*	1 FPS
Gain Range*	0 to 47 dB
Exposure Range*	36 $\mu$ s to 30 s
Acquisition Modes	Continuous, Single Frame, Multi Frame
Partial Image Modes	Pixel binning, decimation, ROI
Image Processing	Gamma, lookup table, and sharpness
Sequencer	Up to 8 sets using 2 features
Image Buffer	240 MB
User Sets	2 user configuration sets for custom camera settings
Flash Memory	6 MB non-volatile memory
Opto-isolated I/O	1 input, 1 output
Non-isolated I/O	1 bi-directional, 1 input
Auxiliary Output	3.3 V, 120 mA maximum
Interface	GigE PoE
Power Requirements	Power over Ethernet (PoE), or 12 V nominal (8 - 24 V) via GPIO
Power Consumption	3 W maximum (2.8 W nominal)
Dimensions/Mass	29 mm x 29 mm x 30 mm / 36 g
Machine Vision Standard	Gige Vision v1.2
Compliance	CE, FCC, RoHS, REACH. The ECCN for this product is: EAR099.
Temperature	Operating: 0°C to 50°C Storage: -30°C to 60°C
Humidity	Operating: 20% to 80% (no condensation) Storage: 30% to 95% (no condensation)
Warranty	3 years

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



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FIND THE BEST BLACKFLY S FOR YOUR NEEDS



Teledyne FLIR  
Machine Vision