

## NOXCAM-POLA

### SENSOR-LEVEL INFRARED POLARIMETRIC RADIOMETRIC CAMERA



FIELD PROOF POLARIMETRIC IMAGERY

EMBEDDED RECORDING

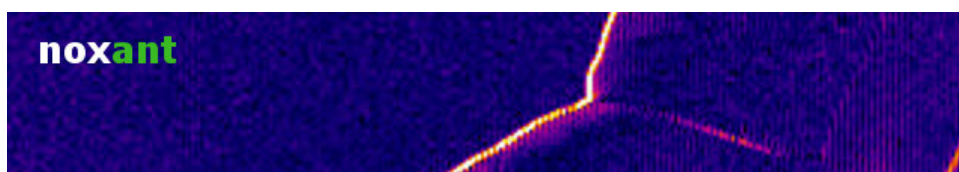
FLEXIBLE OPTICAL INTERFACE

STANDARD INTERFACES AND SOFTWARE COMPATIBILITY FOR SEAMLESS USE

MADE IN FRANCE

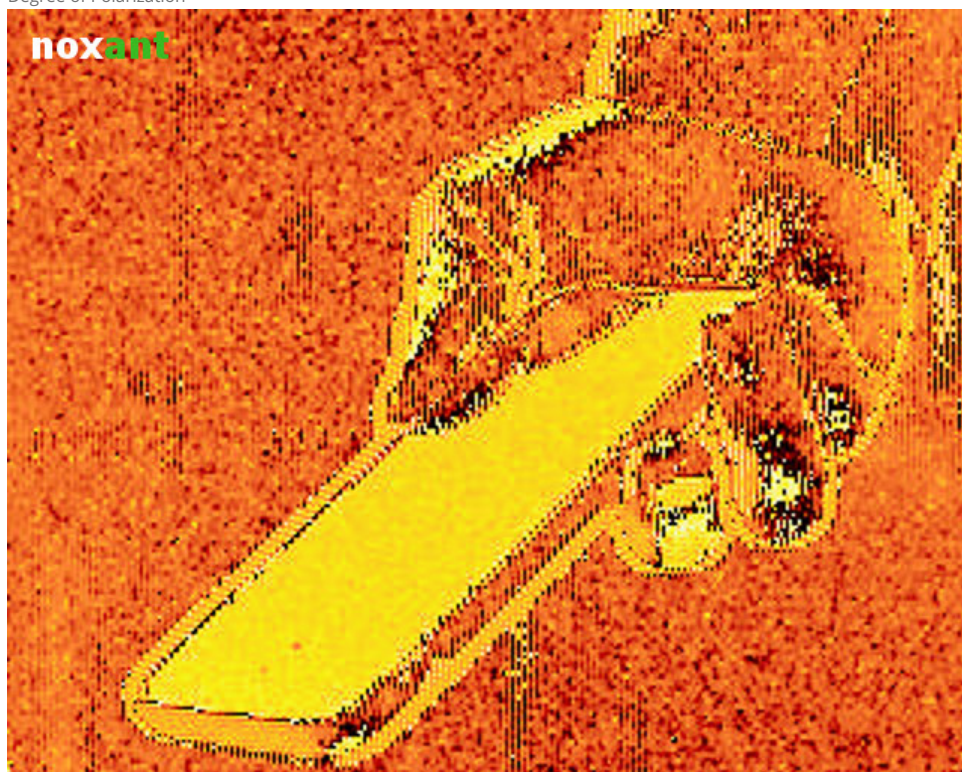


Intensity image





Degree of Polarization



Angle of Polarization

NoxCam-Pola is part of the NoxCam series, sharing the same powerful NoxEngine sensor management, image processing and embedded recording as for all cameras in the serie.

NoxCam-Pola embeds a cooled polarimetric longwave infrared sensor, delivering within a single image, polarimetric information in four directions together with a crisp infrared image. With its high separation power between polarization direction, it provides real time, isochronous information never captured before.

Polarimetric information is known to bring advantages in applications such as Oil spill detection, Biometric security as well as NDT applications. NoxCam-Pola brings you the ideal tool for your lab and field evaluations.

Equipped with the first of its kind pixel-level polarimetric infrared detector, cooled by stirling engine, NoxCam Pola camera offers unmatched performance and flexibility in a reduced footprint, together with ease of use provided by on-board raw calibrated data recording, embedded control software and compatibility with industry standard analysis software such as Matlab® or ImageJ.

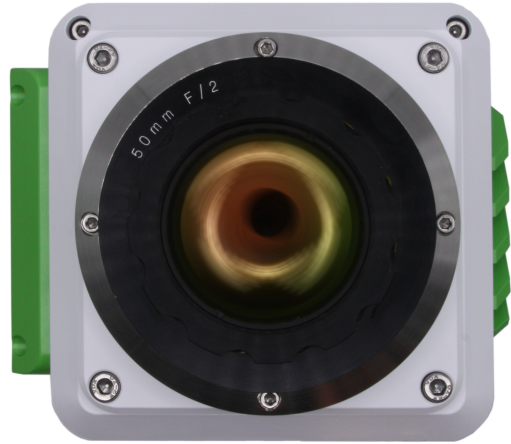
We only present general information in our product pages. Enumerating all the possibilities would make reading tedious. In addition, your project is definitely unique. It is important that we discuss it together. [Contact us](#)

## STANDARD SENSING CONFIGURATIONS

### NOXCAM POLA 320L

- **Director Type** Cooled, snapshot FPA
- **Spectral Range** LWIR Band - 7.7µm to 9.1µm  
Integrated Optical Filter Wheel

- **Image Size** 320x256 - 30µm pitch
- **Polarization Sensing** Pixel-level 2x2 structure with distinct polarization (0°, 90°, 45°, -45°)
- **Frame Rate** Up to 60Hz
- **Optical Aperture** f/2
- **Lenses Range** From 12mm to 200mm  
Microscope lens



## RADIOMETRIC MEASUREMENT

### Measurement Range

Typical 5°C to 300°C, Radiometric measurement ranges are optimized to fit your application requirements and can be set between sub-zero to up to 3000°C. A Radiometric measurement evaluation is performed for each user case. Noxant's Radiometric Measurements are compensated against temperature deviation.

### NETD

Typical 20mK, it is indicative only as NETD value deviation is wide up on measurement conditions. NETD can be dramatically improved using the NoxCam HSi Synchronous Lock-in input.

### Sync Input

Ultra low jitter input signal allows to synchronize the photon collection time with an external event, such as PLC signal, a rotation coder or a photoelectric cell.

### Lens interface

Although we offer a wide range of lenses, we recognize that users may already own existing valuable lenses. We promote reusing them. To do so, NoxCam-Pola can be fitted with Industry standard bayonet interface or a M80 interface. It is also possible to fit it with a custom interface on demand.

## DATA AND CONTROL INTERFACES

### Interface

GigEVision / Gen<i>cam

Optional Camera Link base or medium

### Recording Format

Radiometric RAW or h.264

### Recording Media

Removable 2,5" SSD

### Video output format

Color HDMI 720p with color overlay


Optional SDI

## SOFTWARE COMPATIBILITY

Flexibility is important to us. NoxCam cameras are compatible with all major operating systems such as Windows®, Mac OS X® or Linux®.

Recorded RAW sequences are compatible with industry standard analysis software such as ImageJ, Matlab® or Labview®.

File formats, radiometric calibration data and procedures are provided to our customer on demand.



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### About Noxant

Founded by highly experienced vision specialists, Noxant designs and develops groundbreaking vision solutions for industrial and surveillance applications.

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