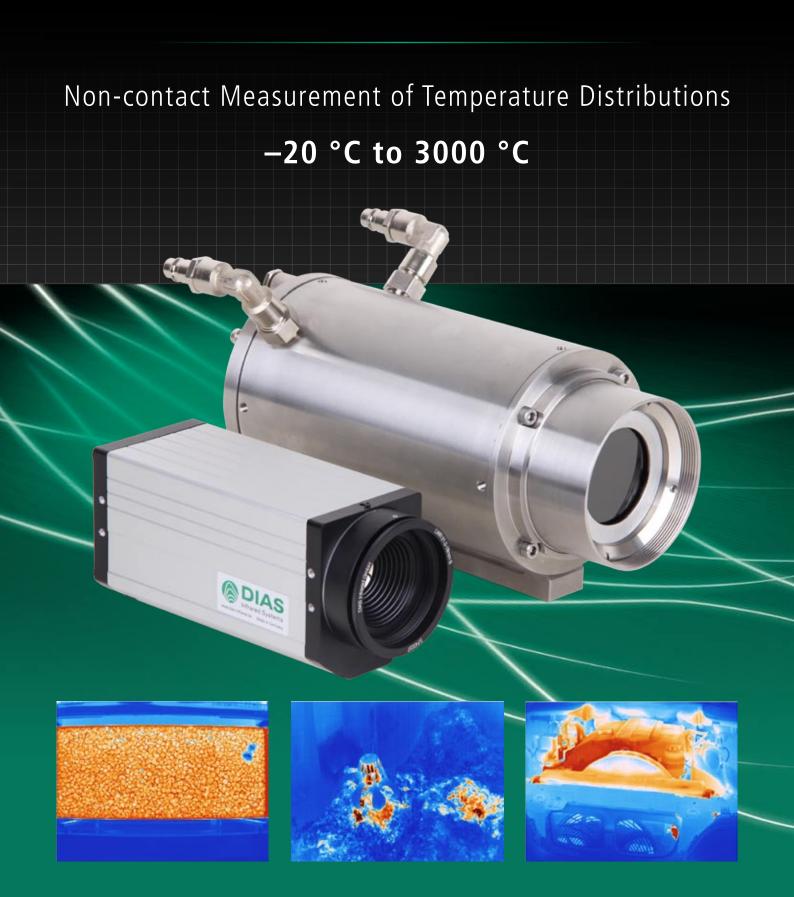


# Fixed Infrared Cameras **PYROVIEW**



# **PYROVIEW**

### The world's most manifold fixed infrared

Our infrared camera series **PYROVIEW** allows you non-contact measurement of two-dimensional temperature distributions with high thermal and spatial resolution. All models are spefically designed for longterm use in fixed-mount applications.

Different standard, wide angle, tele and macro lenses as well as special combustion chamber lenses and borescope lenses with motor or manual focussing allow best possible measurement results. With real-time data acquisition via Fast Ethernet or Gigabit Ethernet images can be transferred to a computer. Stand-alone operation without computer is possible as well.

Alarm and threshold monitoring as well as triggered measurements are realized with galvanically isolated inputs (trigger) and outputs (alarm). The cameras have a large dynamic range and a 16-Bit analog digital converter.

We grant you two years warranty and customized system solutions with modified hardware and software. The PYROVIEW series made by DIAS Infrared is a unique infrared camera series that is optimally adjusted to your application.

To minimize physically caused temperature measurement failures resulting from emissivity inaccuracies, you should measure at a short wavelength. There are typical spectral ranges, recommended temperature ranges and application in the overview:

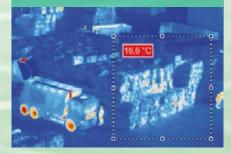
| Material                   | Temperature range | Spectral range   | Device type |
|----------------------------|-------------------|------------------|-------------|
| Non-metals                 | −20 °C to 500 °C  | 8 μm to 14 μm    | "L"         |
| Glass surfaces             | 200 °C to 1250 °C | 4.8 μm to 5.2 μm | "G"         |
| Measurement through flames | 600 °C to 1250 °C | about 3.9 μm     | "F"         |
| Ceramic, metals, graphite  | 100 °C to 500 °C  | 3.0 µm to 5.0 µm | "M"         |
| Ceramic, metals, graphite  | 300 °C to 1200 °C | 1.4 μm to 1.6 μm | "N"         |
| Metals, glass melts        | 600 °C to 3000 °C | 0.8 μm to 1.1 μm | "N"         |





# Application areas of our infrared cameras PYROVIEW:

- Process control and monitoring
- Fire detection systems (paper stocks, waste bunkers, cities, forests,...)
- Quality control in metal, glass and cement industry
- Special measurements on glasses
- Traffic supervision
- Research and development





## camera series for industrial application

| Camera type   | Pixels    | Spectral range   | Temperature range <sup>2</sup>                       | NETD <sup>1</sup>          | Aperture angle²   | Motor focus | Housing                |
|---------------|-----------|------------------|--|----------------------------|---|-------------|------------------------|
| PYROVIEW 160L | 160 × 120 | 8 μm to 14 μm    | −20 °C to 120 °C,<br>0 °C to 500 °C                  | < 0,06 K<br>(30 °C, 70 Hz) | $25^{\circ} \times 19^{\circ}$ , optional: $52^{\circ} \times 40^{\circ}$   | no          | compact+               |
| PYROVIEW 320L | 320 × 240 | 8 μm to 14 μm    | −20 °C to 120 °C,<br>0 °C to 500 °C                  | < 0,12 K<br>(30 °C, 70 Hz) | $25^{\circ} \times 19^{\circ}$ , optional: $52^{\circ} \times 40^{\circ}$   | no          | compact+               |
| PYROVIEW 380L | 384 × 288 | 8 μm to 14 μm    | −20 °C to 120 °C,<br>0 °C to 500 °C                  | < 0,06 K<br>(30 °C, 50 Hz) | 30° × 23°, optional:<br>90° × 74°, 60° × 47°,<br>44° × 34°, 22° × 16°,<br>11° × 8°, macro 60 μm   | yes         | compact+<br>protection |
| PYROVIEW 640L | 640 × 480 | 8 μm to 14 μm    | −20 °C to 120 °C,<br>0 °C to 500 °C                  | < 0,08 K<br>(30 °C, 50 Hz) | $34^{\circ} \times 26^{\circ}$ , optional: $67^{\circ} \times 52^{\circ}$ , $25^{\circ} \times 19^{\circ}$ , $12^{\circ} \times 9^{\circ}$ , macro 30 $\mu m$                     | yes         | compact+<br>protection |
| PYROVIEW 640M | 640 × 480 | 3 μm to 5 μm     | 100 °C to 300 °C,<br>200 °C to 500 °C                | < 0,5 K<br>(200 °C, 50 Hz) | $25^{\circ} \times 19^{\circ}$ , optional:<br>$75^{\circ} \times 60^{\circ}$ , $59^{\circ} \times 46^{\circ}$ ,<br>$43^{\circ} \times 33^{\circ}$ , $12^{\circ} \times 9^{\circ}$ | yes         | compact+<br>protection |
| PYROVIEW 640G | 640 × 480 | 4.8 μm to 5.2 μm | 200 °C to 500 °C,<br>400 °C to 1250 °C               | < 1 K<br>(400 °C, 50 Hz)   | $25^{\circ} \times 19^{\circ}$ , optional:<br>$75^{\circ} \times 60^{\circ}$ , $59^{\circ} \times 46^{\circ}$ ,<br>$43^{\circ} \times 33^{\circ}$ , $12^{\circ} \times 9^{\circ}$ | yes         | compact+<br>protection |
| PYROVIEW 640F | 640 × 480 | 3.9 µm           | 600 °C to 1250 °C                                    | < 1 K<br>(600 °C, 50 Hz)   | $25^{\circ} \times 19^{\circ}$ , optional: $75^{\circ} \times 60^{\circ}$ , $59^{\circ} \times 46^{\circ}$ , $43^{\circ} \times 33^{\circ}$ , $12^{\circ} \times 9^{\circ}$       | yes         | compact+<br>protection |
| PYROVIEW 320N | 320 × 256 | 1,4 μm to 1,6 μm | 300 °C to 1200 °C                                    | < 1 K<br>(350 °C, 100 Hz)  | 24° × 19°, optional:<br>56° × 46°, 34° × 28°,<br>12° × 10°  | yes         | compact+<br>protection |
| PYROVIEW 512N | 512 × 384 | 0.8 μm to 1.1 μm | 600 °C to 1500 °C,<br>optional<br>1400 °C to 3000 °C | < 1 K<br>(600 °C, 60 Hz)   | 36° × 27°, optional:<br>51° × 40°, 26° × 19°,<br>19° × 14°, 13° × 9°,<br>9° × 7°<br>borescope lens:<br>71° × 56°<br>(PYROINC 512N)  | yes         | compact+<br>protection |
| PYROVIEW 768N | 768 × 576 | 0.8 μm to 1.1 μm | 600 °C to 1500 °C,<br>optional<br>1400 °C to 3000 °C | < 1 K<br>(600 °C, 50 Hz)   | 39° × 30°, optional:<br>58° × 45°   | yes         | compact+<br>protection |

<sup>1</sup> Noise equivalent temperature range – specifications for black body radiator and ambient temperature 25 °C and maximum image frequency. 2 Others on request.

#### **Housing variety**

There are two housing variants for our PYROVIEW infrared cameras available by default:





#### compact+

- Aluminium compact housing
- Protection class IP54
- Dimensions 65 mm (L)  $\times$  160 mm (W)  $\times$  79 mm (H) (without lens and connectors)
- Operating temperature: -10 °C bis 50 °C

#### protection

- Industry protection housing
- Protection class IP65
- Stainless steel, with air purge unit, water cooling and protection window
- Diameter 110 mm, length 280 mm (without mechanical mounting and connectors)
- 6 bar max. water pressure, 2 bar max. air pressure
- Operating temperature: −25 °C to 150 °C (with water cooling)

-10 °C to 50 °C (without water cooling)

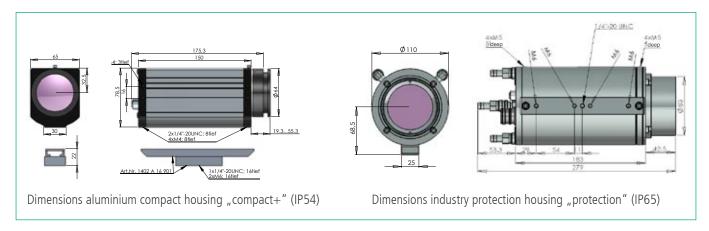
In order to protect the infrared cameras best possible there are no moving parts at the outside of the housing of "compact+" cameras with motor focus and all "protection" cameras. Special housings (weather protection housing, even with pan-tilt-unit, ATEX explosion protection housing) are available, too.

# **PYROVIEW**

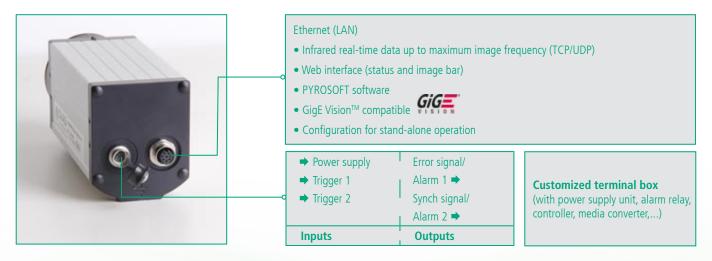


### Dimensions, connectors and software

#### **Dimensions**



#### **Connectors**



#### **Software**

The powerful online software PYROSOFT for Windows ® allows you to control the camera and record, view, manipulate and store the measured data.

#### Special features are:

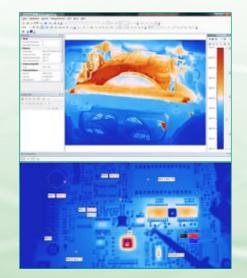
- Real-time data recording
- Definition of zones and monitoring of alarm thresholds
- Analysis of trends
- Data export (Text, Bitmap, Video)
- Support of process interfaces

(e.g. profibus, analog and digital inputs and outputs)

For system integration the PYROSOFT DAQ software is available with a programming interface (Windows ®-DLL). The free software PYROSOFT Compact is delivered with every PYROVIEW infrared camera. For demanding application the versions PYROSOFT Professional and PYROSOFT Automation are available.



We are certified for many years according to ISO 9001 Phone: +49 351 896 74-0 Fax: +49 351 896 74-99 E-Mail: info@dias-infrared.de Web: www.dias-infrared.com



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