

# GRAPHITE

## ADVANCED DIGITAL MOTION DETECTOR WITH PET IMMUNITY

The GRAPHITE passive infrared detector detects movement in a protected area. The large coverage area (over 100 m<sup>2</sup>) has been achieved owing to the patented geometry of Fresnel lenses. Hence, fewer detectors are needed for effective protection, installation is simple, and investment costs are low.

Operation of the device is based on a digital motion detection algorithm. Digital temperature compensation ensures effectiveness of the detection by adjusting sensitivity to the temperature in the room. The sensitivity of detection is continuously adjustable, hence parameters of the detector can be adjusted precisely to the size of the room and the conditions prevailing in it.

The newest GRAPHITE detector models (manufactured since 09–2021) feature an option to turn on the PET immunity mode. This makes the PIR detection zone resistant to movement of small pets (max 15 kg). To enable the PET mode, fit a jumper down onto the indicated pins on the electronics board.

A useful solution is switching remotely on/off the violation indicating LED (without opening the detector enclosure). As a result, the LED can be turned on e.g. when testing the alarm system, and turned off in the normal operation mode to make the detector less conspicuous.

The alarm memory signalling function allows you to check which of the detectors has initiated an alarm, without having to watch the state of the control panel. Security of the detector operation is provided by monitoring the signal path and power supply, as well as the tamper switch.

- high quality dual element pyrosensor
- new generation DSP and analysis algorithm
- precise LODIFF Fresnel sealed optics
- digital temperature compensation
- remotely triggered test mode
- alarm latch feature
- adjustable mounting bracket included
- built-in EOL resistors
- PET immune mode (up to 15 kg)

## TECHNICAL DATA

|  |  |
|--|--|
| Supply voltage                             | 12 V DC                                      |
| Detected target velocity                   | 0,3...3 m/s                                  |
| Operating temperature range                | -30...+55 °C                                 |
| Recommended mounting height                | 2,4 m  |
| Standby mode current consumption           | 10 mA  |
| Max. current consumption                   | 13 mA  |
| Weight                                     | 94 g   |
| Maximum humidity                           | 93±3%  |
| Dimensions                                 | 63 x 96 x 49 mm                              |
| Environmental class according to EN50130-5 | II   |
| Alarm signaling time                       | 2 s  |
| Complied with standards                    | EN50131-1, EN50131-2-2, EN50130-4, EN50130-5 |
| Security grade according to EN50131-2-2    | Grade 2                                      |
| EOL resistors                              | 2 x 1,1 k                                    |
| Warm-up period                             | 30 s   |
| Alarm outputs (NC relay, resistive load)   | 40 mA / 24 V DC                              |
| Tamper outputs (NC)                        | 100 mA / 30 V DC                             |
| Coverage area (PET option off)             | 20 m x 18 m 92°                              |
| Coverage area (PET option on)              | 18 m x 14 m 84°                              |
| Relay contact resistance                   | 34 Ω   |