OPAL GY

The OPAL is an outdoor dual technology motion detector, which is perfectly suited for application both on the outside of the protected building as well as indoors, where difficult or specific environmental conditions prevail (in halls, under umbrella roofs, etc.). The OPAL detector incorporates PIR and MW technologies, as well as antimasking function based on the microwave technology. The dual technology combined with the algorithm of detector auto–tuning to the environmental conditions ensures high immunity to false alarms and, consequently, stable operation in harsh weather conditions, such as rain, snow, sunshine and strong gusts of air. The device offers correct operation in a wide temperature range from –40 °C to +55 °C, the ambient temperature changes being automatically compensated.

The OPAL detector has a detection angle as wide as 100 degrees and a reach of more than 15 meters. Also, as the look down zone is protected, any intruder's attempt to approach the device to damage it or pull it off will be detected. In addition, the detector software has been designed so as to avoid false alarms caused by the movement of small pets.

Also the device enclosure is unique, as it is made using two–component injection molding technology. The result of it is a splash–proof IP54 rated design, which protects the OPAL electronics against harmful atmospheric phenomena. The detector enclosure is also characterized by high mechanical strength and resistance to UV radiation. For additional protection of the device against atmospheric precipitation and fouling, you can install the **HOOD C** (white) or **HOOD C GY** (gray) protective cover on the detector enclosure.

The OPAL detector is designed for mounting directly on a flat surface. If the detector is to be turned vertically or tilted horizontally, you can use special angle–type or ball–joint type brackets from the **BRACKET C** set (white) or **BRACKET C GY** set (gray), and also from the **BRACKET E** set.

To increase the detector's distance from the wall, even by over a dozen centimeters, it is necessary to use the BRACKET E modular set.

The OPAL detectors are available in two color versions: white (**OPAL**) and gray (**OPAL GY**).

- dual technology: PIR and microwave
- anti–masking function based on the microwave technology
- configuration of the sensitivity of detection paths using the PCB buttons
- splash–proof polycarbonate enclosure, IP54 rated
- tamper protection against opening and detachment
- digital temperature compensation for correct detector operation in –40 °C to +55 °C temperature range
- can be used in adverse weather conditions (rain, snow, fog, strong wind)
- high immunity to false alarms because of the use of auto–tuning algorithm
- look down creep zone control
- small animal immunity option (up to 20 kg)
- low power consumption
- can be installed directly on a flat surface or with the use of dedicated brackets:
  - **BRACKET C** set:
    - angle type bracket: constant 45 ° angle
    - ball–joint bracket: adjustable vertically through 60 ° and horizontally through 90 °
  - **BRACKET E** set:
    - **BRACKET E–1** (GY) – body for attaching the BRACKET E–2B inserts

- **BRACKET E–2B** (GY) – insert for mounting outdoor motion detectors of the OPAL series
- **BRACKET E–3** (GY) – 30 mm distance piece enabling the detector to be distanced from the wall or ceiling
- **BRACKET E–4** (GY) – 20 mm mounting base
- **BRACKET E–5** (GY) – ball–joint bracket: adjustable vertically through 60° and horizontally through 90° – for the OPAL series of outdoor motion detectors
- **BRACKET E–6** – tamper sensor with NO/NC switch and 500 mm long cables

Complied with standards	EN50131-1, EN 50131-2-4, EN50130-4, EN50130-5
Relay contact resistance (anti-masking output)	34 Ω
Relay contact resistance (alarm output)	34 Ω
Anti-masking outputs (NC relay, resistive load)	40 mA / 24 V DC
Tamper outputs (NC)	100 mA / 30 V DC
Alarm outputs (NC relay, resistive load)	40 mA / 24 V DC
Detector weight (without bracket)	174 g
IP code	IP54
Warm-up period	40 s
Security grade according to EN50131-2-4	Grade 2
Microwave frequency	24 GHz
Supply voltage	12 V DC
Alarm signaling time	2 s
Environmental class according to EN50130-5	IIIa
Dimensions	65 x 138 x 58 mm
Maximum humidity	93±3%
Max. current consumption	20 mA
Standby mode current consumption	12 mA
Recommended mounting height	2,4 m
Operating temperature range	-40...+55 °C
Detected target velocity	0,3...3 m/s