OPAL Pro

OPAL Pro is an outdoor dual technology motion detector, which is ideally suited for use both outside of the protected building, and in the interiors where difficult or specific environmental conditions prevail (halls, shelters, sheds etc.). The OPAL Pro detector incorporates dual technology motion detection: PIR and MW. It also uses active IR anti–masking (for indoor use). Therefore, the device has a certificate of compliance with the high security requirements specified in **EN 50131** for **Grade 3**: the detector can be used to protect the interiors of medium to high risk premises, like banks, museums, jewelry stores, etc.

The dual technology, in conjunction with the algorithm of detector auto–tuning to the environmental conditions, provides high immunity to false alarms and hence stable operation in harsh weather conditions, such as rain, snow, sunshine and strong gusts of air. The device offers correct performance in a wide range of temperatures from –40°C to + 55°C, the ambient temperature changes being automatically compensated.

Detection angle of the OPAL Pro detector is as wide as 100 degrees and its range exceeds 15 m. The creep zone is also protected, so any intruder's attempt to sneak by under the device to damage or remove it will be detected. Additionally, the detector software is designed so as to prevent false alarms from being triggered by the movement of small pets.

Additionally, the OPAL Pro detector is provided with a dusk sensor for OC output control, which enables it to be used also in alarm systems with home automation without having to install additional dusk detectors. The signal from the low–current output can be sent directly to the relay located in the electrical switchboard or to the home automation controller. The detector can also work in conjunction with the **KNX** system via an **INTEGRA** family control panel. Thus, the OPAL Pro functionality makes possible simple and convenient control of roller shutters, building outdoor lighting, garage door or entrance gate etc., while the moment of operation can be selected with the precise sensitivity control.

What greatly facilitates the installer's work is the function of remote change of the sensitivity of all detection circuits and dusk sensor with the OPT–1 keyfob, without having to re–open the detector enclosure many times to change the settings.

What is also unique is the device enclosure, which is made using the two–component injection molding technology. The thus received splash–proof, IP54 rated design protects the OPAL Pro electronics against harmful atmospheric phenomena. In addition, the detector enclosure has high mechanical strength and is resistant 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 Pro 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 Pro detectors are available in two color versions: white (**OPAL Pro**) and gray (**OPAL Pro GY**).

- two detection circuits: PIR and microwave
- active IR anti–masking for indoor applications
- built–in dusk sensor to use the detector in automation systems
- configuration of detection and dusk sensor sensitivity circuits using PCB buttons
- built–in receiver of **OPT–1** IR keyfob signal
- remote configuration of detection and dusk sensor sensitivity circuits using OPT–1 keyfob without having to open detector enclosure

- splash–proof polycarbonate enclosure, **IP54** rated
- tamper protection against opening and removal from mounting surface
- digital temperature compensation for correct detector operation in temperature range from –40°C to +55°C
- can be used in adverse weather conditions (rain, snow, fog, strong wind)
- high immunity to false alarms as a result of auto–tuning algorithm used
- creep zone control
- immunity to small pets (up to 20 kg)
- low current 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

Microwave frequency	24 GHz
D/N dusk sensor output (OC-type output)	50 mA / 12 V DC
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
Security grade	Grade 3
Detector weight (without bracket)	178 g
IP code	IP54
Warm-up period	40 s
Supply voltage	12 V DC
Complied with standards	EN50131-1, EN 50131-2-4, EN50130-4, EN50130-5
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	30 mA
Standby mode current consumption	17 mA
Recommended mounting height	2,4 m
Operating temperature range	-40...+55 °C
Detected target velocity	0,2...3 m/s