The ADPRO PRO Series by Xtralis PIR detectors are specifically designated for intrusion detection. Designed and manufactured in Switzerland, PRO detectors are engineered to provide unparalleled reliability and accuracy in the harshest environments. Utilising Passive Infrared (PIR) technology and combining it with precision mirror optics and advanced digital signal processing (DSP), ADPRO PRO Series detectors in fact achieve unsurpassed performance in all environmental conditions.

The ADPRO PRO Series PIR detectors are available in a wide variety of models to balance for type of perimeter, performance and budget.

The ADPRO PRO-250H is the most advanced of the detectors in the lineup. It is equipped with sophisticated optics for close-up detection of as little as 1.3 m (4 ft) from the mounting location. The ultra-narrow field of view has a nominal range of 150 m (500 ft) where it is only 3.3 m (11 ft) wide. Further, a silicon wafer window and environmental-controlled heater ensure superior performance and longevity in extreme environments.

The ADPRO PRO Series employs the latest signal processing and environmental adaptive circuitry to provide the highest reliability of detection while minimising nuisance alarms.

**Advanced passive infrared detection technology**

- After 20 years of positive results from PIR outdoor detector technology, it is now widely accepted to be well suited for perimeter protection in harsh environments
- PIR provides protection in low visibility conditions such as snow, fog, rain and darkness
- The area protected by the detector cannot be identified by an intruder due to the passive nature of the unit
- It’s easily adaptable for small single detector installations up to large, high security multi-detector applications

**Product Highlights**

- **Up to 4 m (13 ft) mounting height**
  to minimise the risk of vandalism
- **Gap-free, uniform coverage with creep zones (curtain-models only)**
  No finger-and-gap coverage patterns with detection zone starting as little as 1 m (3.3 ft) from the mounting location, at recommended mounting height of 4 m (13 ft)
- **Ultra-low nuisance alarm rate**
  thanks to advanced digital signal processing (DSP), and adaptive threshold discrimination
- **Directional discrimination**
  for additional 60% nuisance alarm reduction (D-models only), allowing for right-to-left or left-to-right intrusion alarms only
- **Advanced tamper detection**
  signals an alarm if detector alignment is altered, in addition to traditional cover switch
- **Low cost per unit of coverage**
  cutting edge Swiss designed and manufactured precision engineering results in a highly reliable, cost efficient product
- **Low power consumption - ideal for wireless and solar applications**
  18 mA at 12 V DC / 10 mA at 24 VAC (does not include heater in H-models)
- **Auto-sensing**
  supply voltage 10.5 to 30 VDC and 24 VAC
- **Heater and heavy-duty silicon wafer front window**
  for -40 to +60ºC (-40 to 140ºF) operating temperature, ideal for extreme environments (H-models only)
- **Integrated bracket**
  for wall mounting
- **Detection of intruders crawling, walking or running**
  at speeds from 0.2 to 5 m/s (0.7 to 16 ft/s)
- **Remote configuration and alarm management**
  via RS485 data port for two-way serial communication
Rugged construction for durable performance and longevity in harsh environments

- Enclosure is specifically designed for outdoor use
- Bracket for easy on-wall installation (except ADPRO PRO-250H) is included; polemount accessory is available separately
- No need for separate transmitter and receiver - technology allows for single-ended operation for lower installation cost
- Exceptional mounting height of up to 4 m (13 ft) combined with gap-free coverage makes it a true intrusion detection device, setting it apart from the standard PIR detector
- Available installation tools are designed to minimise time for setup and commissioning
- All detectors feature RS485-based data port for remote access of vital configuration settings and live status

Internal Heater

All H-models have an internal heater with temperature compensation to prevent condensation on internal components.

The wavelength of infrared absorption of primary atmospheric constituents compared to the wavelength of infrared radiation produced by humans.
**Recommended Ranges and Positioning**

ADPRO PRO Series detectors offer the best value per foot of coverage among similarly effective intrusion detection technologies. ADPRO has pushed the limits of the PIR technology to new frontiers, thus making it the ideal choice for cost conscious decision makers unwilling to compromise on security.

Longer perimeters are easily divided into sections not exceeding the nominal range of the chosen detectors. Special attention must be paid to the presence or absence of coverage near the mounting location (“creep zone”) to ensure gap-free coverage throughout.

**Mounting**

Recommended mounting height is 2.5–4 m (8–13ft). All PRO detectors (except ADPRO PRO-250H) are supplied with a wall-mount bracket. The ADPRO PRO-250H requires a separate mounting bracket, suitable for wall, pole or ceiling mount.

**Installation**

All detectors are equipped with a two-way data port. Using the ADPRO PRO software via IF485B interface, configuration details and live signals, as seen by the detectors, can be changed and reviewed. The IF485B interface module and the ADPRO PRO software are very helpful during both the installation process but also the operation later on. For example, detector configuration changes can be applied in real time without climbing any ladders!

**Terminating Barrier**

It is considered good design practise to terminate a detector’s field of view with a barrier if the PIR field of view exceeds the desired detection zone, especially if it borders onto unknown or busy terrain.

Wire mesh fence alone will not work, a closed surface area is necessary, wood or plastic materials are perfectly suitable.

**Accessories:**

- **AD851 Telescope**
  Alignment telescope for models ADPRO PRO-100, ADPRO PRO-100H, ADPRO PRO-250H

- **AD653**
  Universal bracket with pole-mounting attachment for ADPRO PRO-250H

- **IF485B**
  Interface module and ADPRO PRO software for PC-based installation and management of all PRO detectors

- **CT PRO**
  Cordless walk tester for all PRO detectors
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>ADPRO PRO-45</th>
<th>ADPRO PRO-100</th>
<th>ADPRO PRO-250H</th>
<th>ADPRO PRO-18</th>
<th>ADPRO PRO-30</th>
<th>ADPRO PRO-40</th>
<th>ADPRO PRO-50</th>
<th>ADPRO PRO-85</th>
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<tbody>
<tr>
<td><strong>Nominal range (LixW), width at nominal range (*)</strong></td>
<td>ADPRO PRO-45: 50 m x 3.3 m (165 ft x 11 ft)</td>
<td>ADPRO PRO-100: 120 m x 2.9 m (400 ft x 9 ft)</td>
<td>ADPRO PRO-250H: 150 m x 3.3 m (500 ft x 11 ft)</td>
<td>ADPRO PRO-18: 25 m x 27 m (100 ft x 90 ft)</td>
<td>ADPRO PRO-30: 27 m x 30 m (90 ft x 100 ft)</td>
<td>ADPRO PRO-40: 30 m x 35 m (105 ft x 115 ft)</td>
<td>ADPRO PRO-85: 60 m x 18 m (200 ft x 60 ft)</td>
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<tr>
<td>ADPRO PRO-100H: 120 m x 2.9 m (400 ft x 9 ft)</td>
<td>ADPRO PRO-45H: 60 m x 3.3 m (200 ft x 11 ft)</td>
<td>ADPRO PRO-18H: 21 m x 24 m (70 ft x 80 ft)</td>
<td>ADPRO PRO-18WH: 27 m x 30 m (90 ft x 100 ft)</td>
<td>ADPRO PRO-30H: 30 m x 30 m (100 ft x 100 ft)</td>
<td>ADPRO PRO-40H: 35 m x 35 m (115 ft x 115 ft)</td>
<td>ADPRO PRO-85H: 60 m x 23 m (200 ft x 75 ft)</td>
<td></td>
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<tr>
<td>ADPRO PRO-45DH: 60 m x 4.2 m (200 ft x 14 ft)</td>
<td>ADPRO PRO-18WH: 27 m x 30 m (90 ft x 100 ft)</td>
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</tbody>
</table>

### SENSORS
- Pyroelectric, differential single-channel
- Pyroelectric, differential triple-channel
- Pyroelectric, differential dual-channel

### ALARM OUTPUT
- Relay SPST 30 V DC @ 100 mA max.
- Open collector 30 V DC @ 50 mA max.

### ALARM INDICATOR
- Internal LED
- Indoor LED
- Indoor LED

### DETECTION RANGE
- 0.2 - 5 m/s (0.7 - 16 ft/s)
- 0.2 - 5 m/s (0.7 - 16 ft/s)
- 0.2 - 5 m/s (0.7 - 16 ft/s)

### TEMPERATURE COMPENSATION
- Full compensation entire operating temperature range
- Full compensation entire operating temperature range
- Full compensation entire operating temperature range

### INTERNAL SWITCHES
- Range, ATD, Test, Anti-Tamper, Mounting Height
- Range, ADT, Test, Anti-Tamper, Mounting Height
- Range, ATD, Test, Anti-Tamper, Mounting Height

### SUPPLY VOLTAGE
- 10.5 - 30 V DC, 24 V AC ±15% (excluding heater)
- 10.5 - 30 V DC, 24 V AC ±15% (excluding heater)
- 10.5 - 30 V DC, 24 V AC ±15% (excluding heater)

### SUPPLY CURRENT
- 2 W / 176 mA @ 12 V at-40ºC (40ºF)
- 2 W / 176 mA @ 12 V at-40ºC (40ºF)
- 2 W / 176 mA @ 12 V at-40ºC (40ºF)

### OPERATING TEMPERATURE
- -20º to 60ºC (-4º to 140ºF)
- -20º to 60ºC (-4º to 140ºF)
- -20º to 60ºC (-4º to 140ºF)

### SEALING
- NEMA 4/6
- NEMA 4/6
- NEMA 4/6

### WEIGHT
- 900 g (2 lbs), incl. bracket
- 900 g (2 lbs), incl. bracket
- 900 g (2 lbs), incl. bracket

### DIMENSIONS (L x W x H)
- 247 mm x 100 mm x 104 mm (9.7" x 3.9" x 4.1")
- 247 mm x 100 mm x 104 mm (9.7" x 3.9" x 4.1")
- 247 mm x 100 mm x 104 mm (9.7" x 3.9" x 4.1")

### CABLE FEED
- 2 x 4.7 mm dia (0.16" - 0.27")
- 2 x 4.7 mm dia (0.16" - 0.27")
- 2 x 4.7 mm dia (0.16" - 0.27")

### MOUNTING
- Wall mounting bracket included, pole mount ZA-P-L1 separate
- Wall mounting bracket included, pole mount ZA-P-L1 separate
- Wall mounting bracket included, pole mount ZA-P-L1 separate

### DATABASE
- RS 485, 9.6 Kbps, 8E1
- RS 485, 9.6 Kbps, 8E1
- RS 485, 9.6 Kbps, 8E1

### MODEL VARIANTS
- ADPRO PRO-45 standard version
- ADPRO PRO-45 - high-performance
- ADPRO PRO-250H - high-performance
- ADPRO PRO-18 - high-performance
- ADPRO PRO-30 - high-performance
- ADPRO PRO-40 - high-performance
- ADPRO PRO-50 - high-performance
- ADPRO PRO-85 - high-performance

### TAMPER DETECTION
- Cover switch 30 V, 100 mA max.
- Cover switch 30 V, 100 mA max.
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- Cover switch 30 V, 100 mA max.
- Cover switch 30 V, 100 mA max.
- Cover switch 30 V, 100 mA max.

### WINDOW
- Plastic, IR transmissive
- Plastic, IR transmissive
- Plastic, IR transmissive
- Plastic, IR transmissive
- Plastic, IR transmissive
- Plastic, IR transmissive
- Plastic, IR transmissive

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* The nominal detection range is defined as a person walking upright at normal speed. The actual detection range depends on the background noise and the thermal contrast, size, and speed of a target. Recommended range for typical application is 60 - 70% of nominal range depending on specific requirements.
Coverage patterns of ADPRO PRO
Top and side view of ADPRO PRO-85 / PRO-85H detection pattern (H-version distances)

Top and side view of ADPRO PRO-18W / PRO-18WH detection pattern (H-version distances)

Top and side view of ADPRO PRO-18 / PRO-18H detection pattern (H-version distances)

Top and side view of ADPRO PRO-85 / PRO-85H detection pattern (H-version distances)
ADPRO PRO Series by Xtralis

Passive Infrared Outdoor Detectors

Top and side view of ADPRO PRO-30 detection pattern

Top and side view of ADPRO PRO-40 detection pattern

Top and side view of ADPRO PRO-50 detection pattern