

# 3D-Pro

## HOLOGRAPHIC PIR



THANK YOU FOR VOTING TEXECOM



A revolution in design, the *3D-Pro* breaks the performance barrier. Combining Texecom's patented holographic optical technology with state-of-the-art surface mount signal analysis, the *3D-Pro* outperforms all other detectors in its class. Exceptional catch performance and superior false alarm immunity result in the perfect PIR for the new digital age.

**Outstanding features of the *3D-Pro* include:**

- ✓ PATENTED HOLOGRAPHIC OPTICAL TECHNOLOGY
- ✓ PATENTED TAMPER-PROOF MOUNTING BRACKETS
- ✓ 1.5 - 3.1m ADJUSTABLE MOUNTING HEIGHT
- ✓ SURFACE MOUNT TECHNOLOGY (SMT)
- ✓ ACTIVE WHITE LIGHT REJECTION
- ✓ 104° COVERAGE
- ✓ SEALED OPTICS
- ✓ 50V/m RF IMMUNITY
- ✓ LASER TUNED IR FILTERING
- ✓ WHITE HIGH GLOSS CASING

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All PIR detectors rely on an optical system to transmit the small amount of infrared radiation emitted by an intruder onto a pyro-electric detector. This is typically achieved using either grooved Fresnel lenses or segmented mirrors. In spite of the fact that this is probably the most crucial part of any detector, these technologies have remained largely unchanged for more than 25 years.

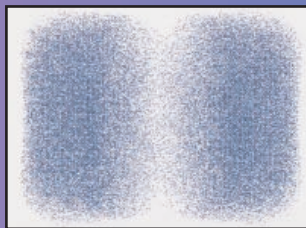
**HOLOGRAPHIC OPTICAL TECHNOLOGY**

The *HOTLens™* is widely regarded as one of the greatest breakthroughs in PIR optics to date. Using state-of-the-art Holographic Optical Technology Texecom have developed the *3D-Series*, detectors with optics so advanced that they dramatically improve both catch performance and false alarm immunity.

**Fig 1. Optimum IR Focussing**

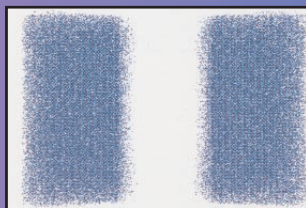
**Standard Fresnel Lens**

Power density varies gradually throughout zone areas. This defocusses the edges reducing signal strength.



**Holographic Lens**

Uniform power density throughout zones leads to far clearer signals for improved pickup and reduced false alarms.



**ELECTRICAL**

- Voltage** 9 - 16Vdc.
- Current** 10mA typical at 12Vdc.
- Maximum Ripple** 2Vpp at 12Vdc (50 - 120Hz sinusoidal).
- Alarm Output** Normally closed (failsafe) voltage free relay contacts. Rated at 24Vdc, 50mA protected by 18Ω series resistor.
- Tamper Output** Normally closed voltage free switch contacts. Rated at 24Vdc, 50mA.
- Alarm Period** 2 - 3 seconds typical.
- Walk Test LED** Internal link to enable/disable.
- Detection Method** Passive infrared.
- Pyro-electric Detector** Dual element, low noise.

**ENVIRONMENTAL**

- Operating Temperature** -10°C (+14°F) to +55°C (+131°F).
- Temperature Tolerance** No false alarm up to 1.7°C/minute (3°F/minute).
- Maximum Humidity** 95% non-condensing.
- Storage Temperature** -20°C (-4°F) to +60°C (+140°F).
- EMC Environment** Residential/Commercial/Light Industrial or Industrial.

**FALSE ALARM PROTECTION**

- Design** Noise reduction circuits with maximum ground plane.
- RF Immunity** No false alarm from 80MHz to 1GHz at 50V/m, equivalent to a 700W uniform transmitter at 3m (10ft). Complies with EN 61000-4-3 : 1997.
- Electrostatic Discharge** No false alarm up to ±8kV. Complies with EN 61000-4-2 : 1995.
- Fast Transient Immunity** No false alarm up to ±1kV. Complies with EN 61000-4-4 : 1995.
- High Energy Transient Immunity** No false alarm up to ±1kV. Complies with EN 61000-4-5 : 1995.
- Conducted RF Susceptibility** No false alarm at 10Vrms. Complies with EN 61000-4-6 : 1996.
- Conducted Emissions** Complies with EN 55022 Class B.
- Radiated Emissions** Complies with EN 55022 Class B.
- EMC** Independently certified to EN 50130-4 : 1996.
- Pulse Count** Internal link to select.

**PHYSICAL**

- Mounting** Corner or wall mount (without mounting bracket). Optional ceiling and wall mount brackets supplied as standard with adjustment range ±30° horizontal. Mounting height up to 3.1m (10'0").
- Casing** 2.5mm (0.1") wall thickness in flame retardant ABS.
- Dimensions** 90mm x 63mm x 40mm (3.6" x 2.5" x 1.6").
- Packed Weight** 125g (4.5oz) approx.
- Colour** Designer white with super-white lens.

**COVERAGE**

**Volumetric (standard)** 12m (40ft) range; 24 facets with look-down creep zones; 104° coverage producing a maximum width of 18.9m (62ft).

**EUROPEAN STANDARDS**

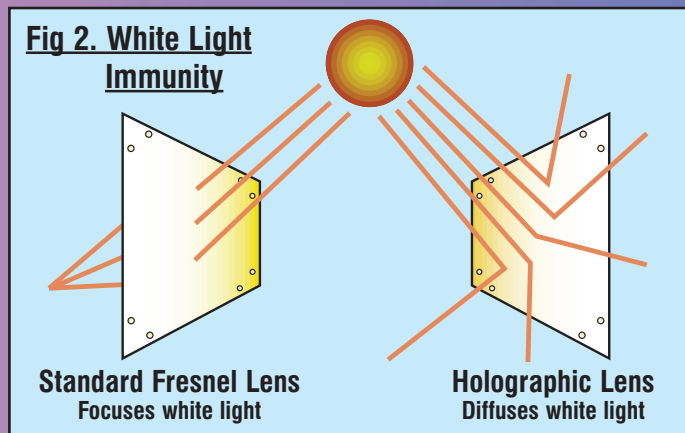
Conforms to European Union (EU) Electro-Magnetic Compatibility (EMC) Directive 89/336/EEC.  
 Approved to BS EN 55022 Class B and BS EN 50130-4 : 1996.  
 The CE mark indicates that this product complies with the European requirements for safety, health, environmental and customer protection.

**BEST MANUFACTURER 2000 & 1999  
 INTRUDER ALARM MANUFACTURER  
 OF THE YEAR 2001 & 2000**

- 1st** For offering the best quality products at the right prices
- 1st** For reliability & responsiveness
- 1st** For excellence in customer care & service
- 1st** For providing a high level of support & servicing including training & help lines



**Fig 2. White Light Immunity**



**SURFACE MOUNT SIGNAL ANALYSIS**

The *3D-Pro* maximises the critical advantages of the holographic lens technology by incorporating advanced surface mount signal analysis. This guarantees exceptional catch performance and outstanding false alarm immunity.



PIR DETECTOR WITH HOLOGRAPHIC OPTICAL TECHNOLOGY

