# PHOENIX EX™

MOTION SENSOR WITH EXPLOSION-PROOF /
FLAME-PROOF HOUSING FOR INTRUSTION PROTECTION

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## TECHNOLOGY



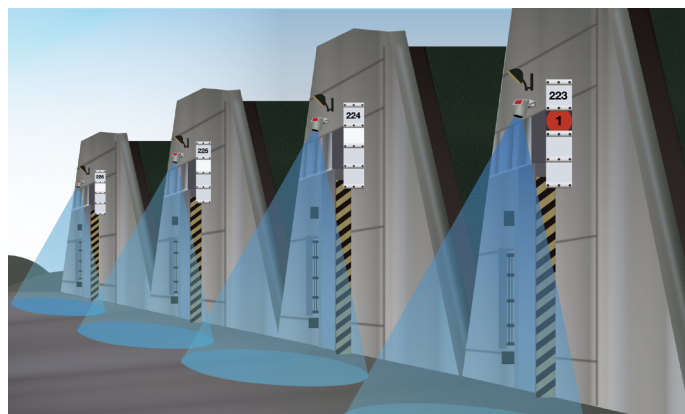## CERTIFICATIONS



## DESCRIPTION

BEA's **PHOENIX EX™ Family** combines a microwave motion detection sensor in an explosion-proof / flame-proof housing, which is ideal for use in unique environments such as chemical manufacturing, petroleum refining and military facilities.

The **PHOENIX EX™ Family** is designed to detect within a desired area for security or intrusion detection, warning indication and automation. When tied into a security system, the **PHOENIX EX™ Family** offers a monitoring feature via end-of-line resistors. These resistors provide unique output states, which allow differentiation between an motion detection signal and/or an interruption in functionality due to tampering of the device.

The explosion-proof / flame-proof housing is a waterproof-rated enclosure designed as an IP66 housing. This housing achieves UL Class I, Div. 1, Groups B, C, D; Class II, Div. 1 & 2, Groups E, F, G; and Class III***.
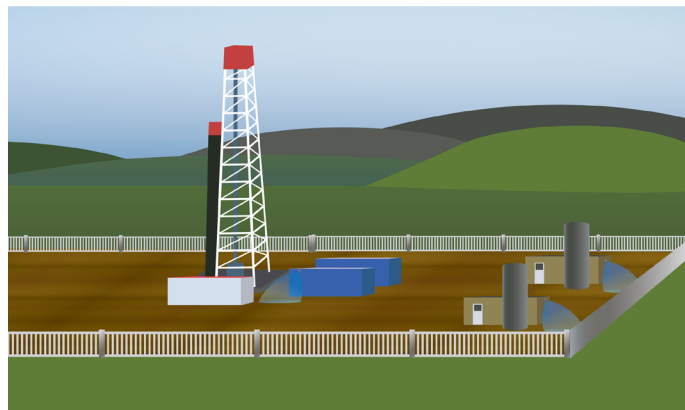
***Adalet / Scott Fetzer Co., UL Listing #E81696



### Energy Conservation

Bidirectional, unidirectional approach and unidirectional depart microwave detection options

### Tamper Proof

Integrated tamper alert switch and customizable end-of-line resistors



### Certified Housing

Explosion-proof / flame-proof housing weighs 10 pounds

### Customizable Detection Angle

Tilt adjustment angle: -90 to 30° in elevation

## TECHNICAL SPECIFICATIONS

### TECHNOLOGY / PERFORMANCE

| | |
|---|---|
| **Technology:** | microwave doppler radar |
| **Mounting height:** | |
| EX | 11.5 – 23 ft |
| EX XL | 6.5 – 11.5 ft |
| EX WIDE | 11.5 – 21 ft |
| **Detection zone:** | (typical at 30° and field size 9) |
| EX | 13 x 16 ft @ 16 ft |
| EX XL | 13 x 6.5 ft @ 8.2 ft |
| EX WIDE | 30 x 11 ft @ 21 ft |
| **Min. detection speed:** | 2 in/s (measured in optimal conditions) |
| **Tilt adjustment angle:** | -90 – 30° in elevation |

### ELECTRICAL

| | |
|---|---|
| **Supply voltage:** | 12 – 24 VAC ±10% |
| | 12 – 24 VDC +30% / -10% |
| **Transmitter frequency:** | 24.150 GHz |
| **Transmitter radiated power:** | < 20 dBm EIRP |
| **Transmitter power density:** | < 5 mW/cm2 |
| **Output:** | relay (free of potential change-over contact) |
| max. contact voltage | 42 VAC / VDC |
| max. contact current | 1 A (resistive) |
| max. switching power | 30 W (DC); 60 VA (AC) |
| **Output*:** | end-of-line resistor(s)** |
| max. switching power | 1/8 Watt |
| **Mains frequency:** | 50 – 60 Hz |
| **Max. power consumption:** | < 2W |
| **Anti-tamper (EX versions):** | 1) product anti-tamper (magnetic switch within cover, alerts when cover is unscrewed) 2) application-based anti-tamper (tamper alert via end-of-line resistor) |
| **Anti-tamper (EX-IT versions):** | product anti-tamper (magnetic switch within cover, alerts when cover is unscrewed) |

### PHYSICAL

| | |
|---|---|
| **Temperature range:** | -22 – 140 °F |
| **Housing certification:** | (Adalet / Scott Fetzer Co., UL Listing # E81696) UL Class I, DIV 1 Group BCD; Class II, DIV 1 Group EFG; Class III; NEMA Type 4X; IP66; UL 1203; CSA C22.2 No.30&CSA C22.2 No.25 FM 3615; ATEX (FLAMEPROOF - DEMKO), Ex d IIC, IEC60529 |
| **Dimensions:** | 9 in (L) x 7.5 in (W) x 5.5 in (H) |
| **Materials:** | Copper-free aluminum (housing) Powder-coated steel (bracket) |
| **Weight:** | 11 lbs |
| **Cable length:** | 100 ft |
| **Cable diameter:** | |
| EX | 0.216" (5-conductor cable) |
| EX-IT | 0.234" (7-conductor cable) |
| **Electrical Access:** | ¾" NPT pipe thread |

### COMPLIANCE
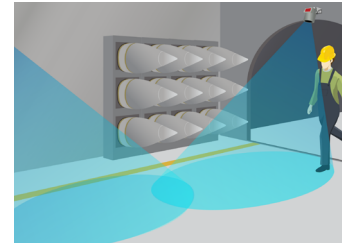
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|---|---|
| **Compliance** | R&TTE 1999/5/EC; EMC 2004/108/EC |

\* output ratings may vary depending on optional end-of-line resistor values
\*\* optional for EX-IT versions

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## APPLICATIONS
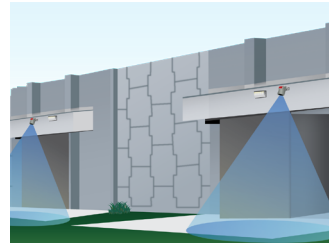

Military Bunkers


Munitions Storage
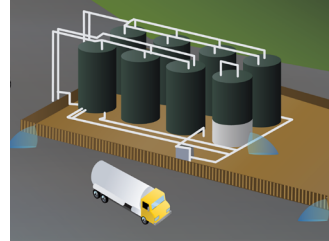

Compressor Station


Maintenance Facility

## PRODUCT SERIES



| | |
|---|---|
| **10PHOENIXEX100** | Standard mounting heights |
| **10PHOENIXEXXL100** | Low mounting heights |
| **10PHOENIXEXW100** | Wide detection fields |
| **10PHOENIXEX-IT100** | Standard mounting heights |
| **10PHOENIXEXXL-IT100** | Low mounting heights |
| **10PHOENIXEXW-IT100** | Wide detection fields |

## ACCESSORIES



**10REMOTE**
BEA universal remote control

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