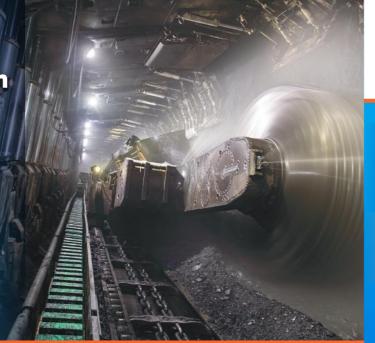
### **Passionate About Innovation**

NAUTITECH® is an Australian provider of smart electronic and electrical solutions for OEMs and mine sites in the underground mining industry. We design and manufacture equipment that delivers Communications and Visibility, supports Automation, and provides a platform for Asset and Condition Monitoring of underground equipment.

Our core products include Methane Monitoring and Shutdown systems, Underground Communications, Thermal and HD Cameras, IS Lights and Displays. We collaborate, test, and research to continually improve what we deliver to our customers.



### **Service & Support**

- ✓ AS3800 and IECEx service facility
- ✓ NATA certified calibration lab
- **(γ)** Field installation, maintenance & training
- Audits & compliance checks of explosion proof equipment including diesel machines
- 12 months warranty on new parts

### We offer full product life cycle support

The reliability and quality of NAUTITECH® solutions have been proven to provide a competitive advantage.







### **New South Wales**

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### **South Africa**

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**6** + 27 78 800 2589

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04/19



# **CAMERAS**

# EXTREMECAM

### **Get better vision for higher** productivity and safety

Thermal, HD and IR cameras by Nautitech® add an important element for visual monitoring within the mine site and can be used on mobile or stationary applications including Longwall, Development equipment, mobile machinery, belt conveyors, and other heavy industrial use.

Fully compatible with Nautitech® Hawkeye Displays



### **Thermal Cameras**

- Facilitate critical decision making in hazardous areas with impaired visibility due to fog, dust, heat or darkness
- Display workers, cables, machines and other heat sources

### **HD and IR Cameras**

- Multiple lens options and wide selection of video compression and resolution
- Available with IR or built-in white LED lights for additional illumination

**Full 1-Year Warranty** 

**NAUTITECH®** 

**NAUTITECH**®

Typical Applications: Longwall, development equipment, mobile machinery, belt conveyors and heavy industrial use

### **EXTREMECAM**

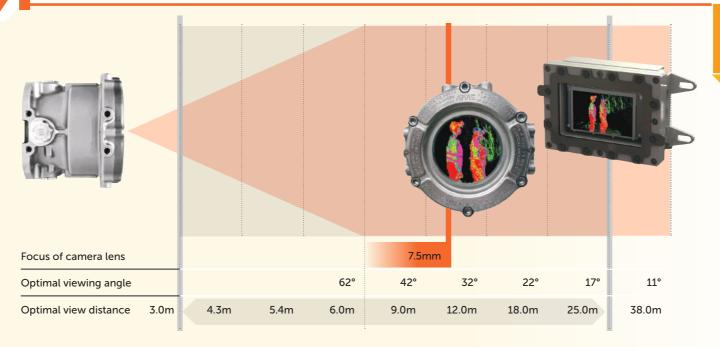
## The thermal camera is not affected by fog, dust or darkness as it uses radiation from the far infrared region of the spectrum

### **Operational Benefits**

**THERMAL CAMERA** 

- Situational awareness in darkened locations
- Monitor heat sources such as belt rollers and cables
- Reversing machinery into unlit locations
- Analysing stock piles or transfer points
- Marker band identification during cutting cycles
- Personnel detection
- Increased driver visibility in low seams





### Camera Analytics

Thermal image displayed via Hawkeye IQ allows for the application to determine subsequent actions





Take one or more of the following actions as a warning system



Monitor machinery and coal stockpile for potential hazard



### **HD and IR Cameras**

HD Camera displays high definition colour video in the visible spectrum

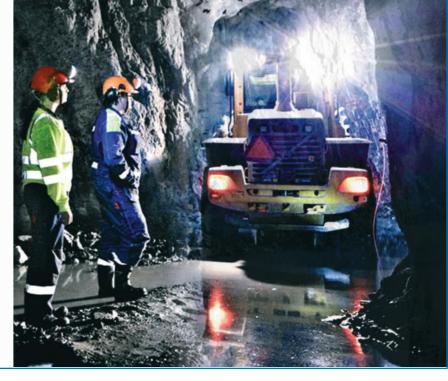
IR Camera is ideal for night vision as it detects infrared energy and converts it into an image

#### **Operational Benefits**

- Remove operators from hazardous, dusty areas
- Monitor transfer points
- Blind spot display (reversing)
- Driver awareness
- Supports ONVIF streaming Protocol
- General surveillance
- Available with optional lighting and Wi-Fi

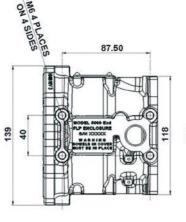


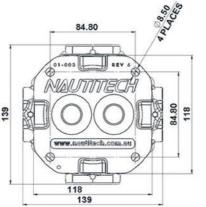
### 2.8mm 3.6mm 8.0mm 25.0mm Focus of camera lens 4.0mm 12° Optimal viewing angle 99° 88° 80° 37° 12.0m 38.0m Optimal view distance 4.3m 6.0m STANDARD



### **Dimensions**

- Robust 316 S/S enclosure
- IP66 (Ingress Protection Rating)
- Multiple rear and side gland entries





### **Environmental Specifications**

| Operating temperature | -40°C to +60°C (External temperature) |
|-----------------------|---------------------------------------|
| Storage temperature   | -55°C to +95°C (External temperature) |
| Shock                 | 50G - 3Axis                           |
| Bump                  | 15G - 3 Axis                          |
| Vibration             | Random Vibration 3 Axis (7Hz - 500Hz) |
| Humidity              | 5 - 95% non-condensing                |
| Sinusoidal Resonance  | IEC60068-2-6                          |
| Random Vibration      | MIL-STD810G                           |
| Bump and Shock Test   | IEC60068-2-27                         |

### **Electrical Specifications**

| Supply voltage (all cameras)      | 12V - 24V AC/DC |
|-----------------------------------|-----------------|
| Power (ExTREMECAM with IR lights) | <= 9.5W         |
| Power (All other cameras)         | <= 4.5W         |





