

Provox is Mobile Safety

Provox supplies a variety of safety systems designed specifically for mine rescue teams. These systems support mine rescue by enhancing vision through advanced video solutions and providing communication technology that reduces response time.

PROVIX is the Canadian distributor for FLIR thermal imaging cameras and distributes both vehicle and handheld thermal imaging solutions.

PROVIX supplies MSHA approved hardwired communication systems that offer constant contact even when used with SCBA and provide quickly deployed solutions regardless of infrastructure state.

PROVIX emergency LED Lighting offers maximum run time, low amperage draw and brighter illumination for safer rescue operations in any location.

APPLICATION STORY



Avoiding accidents with mining vehicles

FLIR Systems PathFindIR thermal imaging camera helps to avoid sometimes deadly accidents.

South Africa is a world renowned leader in the mining industry. Not only is it famous for its mineral resources, which account for a significant proportion of world production, but the country's wealth has been built as a direct result of it's vast mineral resources.

Approximately 90% of the planets platinum resources, 80% of it's manganese, 73% of it's chrome, 45% of it's vanadium and 41% of it's gold resources are produced in South Africa. The only exceptions to SA's bounty are crude oil and bauxite.

Mining industry in South Africa

South Africa is the leading producer of precious metals such as gold and platinum, as well as base metals and coal. It is the world's fourth largest producer of diamonds. Experts believe that there is still considerable potential for further discoveries in other areas which have yet to be fully exploited.

The mining industry is also South Africa's biggest employer, with around 460,000 employees and another 400,000 employed by the suppliers of goods and services to the industry.

Trysome Auto Electrical Parts Distributors

Trysome Auto Electrical Parts Distributors, is the single largest source supplier of auto-electrical heavy duty components in Southern Africa.

Established in 1991 and based in Jet Park, Johannesburg, South Africa, Trysome has

branches in key mining districts in South Africa. Their focus is on providing specialized auto electrical components and safety solutions for heavy duty, earth moving, construction, agricultural, transport and mining machinery.

Accidents with mining trucks

"The mining industry is a huge market in South Africa.", explains Mr. Eddie Smith, founder and Managing Director of Trysome. "We supply the mining industry with cameras and other safety systems for their trucks and other heavy equipment. It is of little consequence whether mining is carried out in open cast mines or underground, the equipment utilized is always huge and heavy, and as a result any accidents which occur are usually serious."

"In addition to the equipment being extremely large and heavy, an added complication is that the driver is sitting in a very elevated position.



Mr. Wayne Jeffrey, National Sales Director, Mr. Eddie Smith, Managing Director, Mr. Tinus Diedericks, Timeless Technologies.



Accidents in which mining trucks are involved are always serious. This car was run over by a mining truck.

This elevated position results in the driver not always being in a position to see what is happening directly in front, to the side or to the rear of his vehicle."

"Not having a clear view of what is happening around him can result in sometimes deadly,





The PathFindIR thermal imaging camera can easily be mounted on front of a mining truck.



accidents. A mining truck, for example is such a huge vehicle that if the driver cannot see a normal LDV parked in front or behind him, he may accidentally drive right over it. Because the vehicle is so large and the terrain often rough he may not even be aware that he has driven over an obstacle and will simply continue to travel. Accidents of this nature are a regular occurrence since people do not always realize the danger of being close to one of these vehicles.", Eddie Smith further explains.

Avoiding accidents

"In order to avoid these types of accidents, Trysome supplies a wide range of cameras and other products that are currently being installed on mining vehicles. Some of the vehicles are equipped with an 8m radar system which warns the driver when something is in his path. In addition to the radar system we can also install GPS Traffic Alert systems which warn the driver timeously of any possible accidents."

"The truck may also be equipped with cameras. These can be mounted on the front, the side and the rear of the vehicle. Images are relayed to a 7" LCD display screen located inside the cabin. Before starting his vehicle the driver should

check all sides of the vehicle to ensure that the road is clear. Some of these cameras are even equipped with infrared illuminators so that the driver has a comprehensive view even when it is getting dark."

"Cameras with infrared illumination can however, only be used for short range observations. Furthermore, vehicles utilized for open cast mining often need to operate in foggy or poor weather conditions which are often complicated by dust. Fog and dust are not ideal conditions for the utilization of CCTV cameras or infrared illuminators."

PathFindIR thermal imaging cameras

"We were looking for another technology that can help drivers of mining vehicles to avoid accidents. After some research we got in contact with Mr. Tinus Diedericks, distributor of FLIR Systems thermal imaging cameras in South Africa."

"When we found out what the FLIR Systems PathFindIR thermal imaging can do, we were impressed. Not only does it produce a crisp image in total darkness, but it can also see through light fog, dust and smoke. Exactly what is required for a mining vehicle."

"We are currently installing the first 68 PathFindIR thermal imaging cameras on board of mining vehicles. They are easy to integrate and are being mounted on the front of the vehicle. The images the PathFindIR produces are displayed on a large LCD screen located inside the vehicle's

cabin. The driver has the ability to switch on the thermal imaging camera at all times, however the thermal images are automatically displayed on his screen once he reaches a pre-determined speed (this differs from site to site). In this case we want him to look at the thermal images regularly. Not only during the night, but also in daytime since the PathFindIR assists vision in dusty, as well as foggy weather conditions, Eddie Smith further elaborates.

Potential for thermal imaging

"The first installations were carried out on vehicles operating on open cast coal mines, however it is of no consequence if the vehicle is being utilized for coal, gold, diamond or any other type of mining operation. In all applications there will almost always be dusty conditions and all will benefit from having a thermal imaging camera installed. Other big and heavy equipment such as excavators, wheel dozers etc which are required to operate in dusty conditions can also easily be equipped with thermal imaging."

"Mining equipment utilized for underground applications also have to deal with dusty and dark conditions and they too can be equipped with thermal imaging cameras."

"Compared to the cost of a vehicle and the money that is subsequently lost due to involvement in mining accidents, the cost of installing a PathFindIR thermal imaging camera is a minor and negligible expense. For this reason more and more companies are considering the installation of PathFindIR thermal imaging cameras on their vehicles", concludes Eddie Smith.



The thermal images produced by the PathFindIR are displayed on a 7" LCD display inside the trucks cabin. They help the driver to avoid accidents.



CALL: 1 888 434 0253
CONTACT: SALES@PROVIX.NET
VISIT: WWW.PROVIX.NET

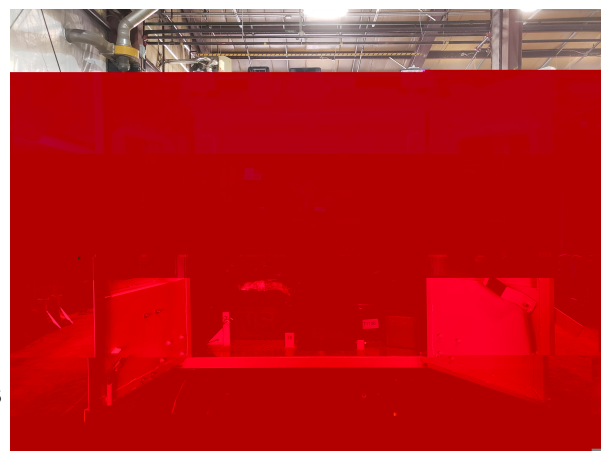


Vehicle Mounted Thermal Imaging and Gas Detection System



Options/ Add On's:

- ✓ Thermal Imaging
- ✓ Video Overlay
- ✓ PTZ Cams (optional)
- ✓ -
- ✓ Sensors by Draeger or Conspec
- ✓ Multiple Sensor Options



Provix Gas Detection systems are deployed on Mine Rescue vehicles across Canada. Contact us for references at SALES@PROVIX.NET!

Detectable Gasses

Technical Specifications

SENSORS

- 3 Plug-and-Play Electrochemical sensors
 - Factory preconfigured and calibrated
 - CO, O₂, NO₂, NO, H₂S, and more
- 3 NDIR sensors
 - CH₄, CO₂, and more
- Remotely wired up to 100ft (30m)
- 6 Analog sensor inputs (4-20mA/0-2.0V)

ALARMS

- 4 Custom Alarm Levels with hysteresis and hold times
- Sensor Fail-High and Fail-Low
- Ability to associate relay outputs to alarm levels from a single sensor, or multiple sensors using logical "AND/OR"

COMMUNICATION INTERFACES

- RS485, CONSPEC Trunk, Wireless
- Modbus RTU (wired/wireless)
- Mesh or Star Network

MENU & DISPLAY

- Intuitive menu navigation
- Password protected
- Quick info screen shows device settings
- Slide-show of real-time gas readings
- Graphical LCD display
- Dimmable RGB backlight
- Backlight color indicates monitor status

USER INTERFACE

- IR remote control
- 4 simple buttons

INPUT POWER OPTIONS

- 6 - 56V AC/DC
- D-Cell Battery Operation (1 year)
- 100 - 240VAC 50/60Hz

POWER CONSUMPTION

- 2mA @ 24VDC
- Sleep modes with battery operation

TEMPERATURE & HUMIDITY RANGE

- 20 to 60°C, 0-95 RH non-condensing

CONFIGURATION

- Local Menu Display
- Modbus Register Map or Wireless

APPROVALS

- Class I Division I Groups ABCD, NEMA 4X
- Class I, Zone I, AEx d IIC, IP66
- IECEX Ex d II C, IP68
- ATEX 94/9/EC, EN50014, EN 50018
- SIL-1 (pending)

IO CAPABILITIES

- 6 Digital input/output
- 6 Relay Ports
- 2 channels 4-20mA outputs (V_{in,max} 32V)

WIRELESS FEATURES

- 1 year battery life (single D-cell)
- 2 miles (3.2 km) using external antenna
- 0.5 miles (0.8 km) using low cost internal antenna (break proof)
- Dual Band Support: 433MHz or 915MHz
- Modbus RTU over Wireless
- Self-healing, Self-forming, Mesh or Star
- Up to 250 Modbus Gateway nodes
- Each Gateway can support up to 32 wireless multi-gas monitors

WARRANTY

- Two years standard warranty



PTZ THERMAL CAMERA

- Type & Material: 320 x 240 Uncooled Microbolometer
- Field of View: 35° H x 27° V
- Spectral Band: 8-14 Microns Long Wave Infrared (LWIR)
- Pan / Tilt: 370° Rotation / 135° Tilt
- Speed: Fast / Slow
- Operation: Wired / Wireless Remote Control Options
- Power Requirement: 9-16 VDC Power: 12 VDC
- Video Output: NTSC / Pal
- Dimension: 6.76" x 7.25" x 8" Weight: 4 lbs.
- Video: BNC / RCA Quick Disconnect
- Warranty: 1 Year Limited
- Hertz: 30 Hertz for North America Not For Export.
- Export Model Available in 9 HZ.



PathFindIR II

See Clearly in Total Darkness

PathFindIR II is a powerful thermal night vision system that lets you see road hazards clearly in total darkness, detecting and alerting you to nearby vehicles, people, and animals.

See Farther Than Ever Before

Headlights usually only let you see about 450' straight ahead, but PathFindIR II sees heat not light, so you can see everything in front of you up to four times farther down the road. Now you can see clearly, night and day, in good weather and bad, without being blinded by the glare of oncoming headlights.

And when you can see farther you have more time to react. More time means more options, smoother driving in emergencies and more room to stop. It's the one thing that can help you avoid traffic accidents. With PathFindIR, you can see pedestrians, cars, animals, and virtually any other hazard from farther away, and as they approach the road from either side.

Benefits of PathFindIR II:

- See in total darkness
- Automatic detection and alerts of Pedestrians and Animals
- See pedestrians and vehicles past the glare of oncoming headlights
- See many hazards over four times farther away than with headlights
- See through dust and smoke
- Have more time to react
- Help avoiding accidents and staying safe



Specifications



PathFindIR II

KEY PERFORMANCE CHARACTERISTICS

Thermal Imager

Sensor Type	320 x 240 Uncooled Microbolometer
Field-of-View	24° (h) x 18° (v)
Spectral Band	8-14 microns (LWIR)
Outputs	NTSC

Power

Power Requirements	12 VDC
Power Consumption	2 W (6 W w/heater on) 1.8 A max. system current

Environmental

Operating Temperature	-40°C to 80°C
Weather Resistance (Camera)	Hermetically Sealed, Automotive Qualified
Weather Resistance (ECU)	Non-Hermetic; Passenger Compartment mount required
Window	High-Impact Resistant Optic w/ Built-in Automatic Heating Element Replaceable Window

Physical

Camera Dimensions	2.6" x 3.4" x 3.2" (60 x 86 x 82 mm)
Camera Weight	0.6 lb (300 g)
ECU Dimensions	5.8" x 4.3" x 0.9" (148 x 110 x 24 mm)
ECU Weight	0.7 lb (350 g)

COMPACT, EASY TO INSTALL

PathFindIR II is compact and installs easily into almost any vehicle. All you need is a display with an auxiliary NTSC video input.

ADDITIONAL OPTIONS

An optional Installation Kit is also available, which includes mounting brackets and a compatible monitor.





K-SERIES



Like the vital protective gear you wear and tools you carry, a thermal imaging camera has become essential firefighting equipment.

Imagine if everyone on the crew could pack a TIC to help them maneuver more safely, attack fires more strategically, and save lives. With FLIR K-Series and the new K2, a TIC for every firefighter is now more feasible than ever before.

Model	FLIR K2	FLIR K45	FLIR K55	FLIR K65
IR Resolution	160 x 120 pixels	240 x 180 pixels	320 x 240 pixels	
Contrast optimization	MSX	Digital image enhancement using FSX		
Sensitivity (NETD)	< 100 mK @ +86°F	< 40 mK @ +86°F	< 30 mK @ +86°F	
NFPA Compliant		—		✓

FLIR K-SERIES FEATURES

So affordable, now more fire trucks and firefighters can carry one

FLIR develops and manufactures more thermal imaging cameras than any other company. This integrated capability allows us to offer the K-Series at an extremely affordable price to help you stretch your department's budget.

Clear and crisp thermal images

The maintenance-free uncooled IR sensor and FSX enhancement produces detail-rich thermal images at 320 x 240 pixels (K65 and K55) or 240 x 180 pixels (K45), brightly displayed on the large 4" K-Series LCD, helping you navigate better and expedite critical decisions.

Rugged & reliable

K-Series TICs are designed to withstand the toughest firefighting conditions. They can take a 2-meter drop onto a concrete floor, are water resistant (IP67), and remain fully operational up to +500°F (5 minute duration). The K65 complies fully with the NFPA 1801 2013 standard for firefighting thermal imaging cameras.

Produce simple reports

Save up to 200 thermal images to the internal memory of the K45, K55, and K65. Review them later from the camera or export them and create a report to recap what happened at the scene.

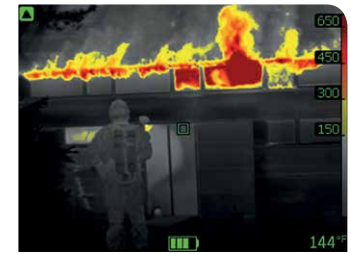
Easy to use, even with gloves on

3 large buttons on the K45, K55, and K65 provide quick access to the intuitive and simple K-Series user interface so you can stay focused on the challenging and fast-changing job at hand.

In-Camera video storage (K55 & K65)

The K55 and K65 can record 200 thermal video clips (up to 5 minutes each) that you can replay on the camera LCD or export for future reference – ideal for onsite review and for training purposes.

TI BASIC



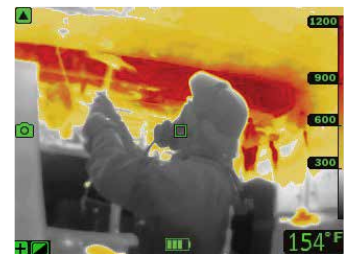
For initial fire attack and life rescuing operations.

BLACK AND WHITE FIRE FIGHTING



Same as the TI Basic mode but a grey scale image.

FIRE



For use in context with higher background temperatures where a lot of open flames are present, particularly in structural fires.

SEARCH & RESCUE



For use with lower temperature situations, such as initial rescue efforts after traffic accidents, searches in wooded landscapes, etc.

HEAT DETECTION



Used for finding hotspots. The hottest 20% of the scene is colored in red.



FLIR K2

A TIC for Every Firefighter that Saves More than Just Money
So Every Firefighter Goes Home

FLIR is on a mission to make thermal imaging cameras standard issue equipment. Not just one TIC for every truck, but for each crew member in it.

Without sacrificing capability, ruggedness or reliability, the K2's \$1,295 price tag makes that more possible than ever. But extreme affordability is just one benefit.

Multi-spectral dynamic imaging (MSX®)

The K2 uses FLIR's patented MSX technology that embosses key details from the built-in visible camera onto thermal images, providing you with the extra perspective to help you stay oriented and safer while saving others.

Compact and easy to use

FLIR K2's compact design makes it light and easy to attach to turnouts. And a single large button makes the camera simple to activate even with heavy gloves on so you can start seeing your way through dark, smoky conditions immediately.

Rugged & reliable

Engineered to survive tough operating conditions, the K2 withstands a 2-meter drop onto concrete, is water resistant (IP67) and is fully operational up to +500°F (for up to 3 minutes).

Multiple image modes

FLIR K2 can be set to one of seven different thermal imaging modes depending on the primary use of the camera. Switch between them using FLIR Tools software that you can download free from www.flir.com.

Multiple firefighting applications

Fire up the K2 as soon as you arrive on scene for the 360 size-up. Take it inside to see your way through smoke, keep track of others, and determine where to focus fire attack efforts. Find stranded victims faster. And scan for hot spots during overhaul.

A new level of affordability

The K2's economical price makes powerful thermal imaging more accessible to more firefighters – a small investment that can help pay big dividends when it comes to safety, saving lives, and protecting property.



PTZ THERMAL CAM FOR MINE RESCUE



See Through Smoke, Dust, and Fog!

See in the Dark!!



FLIR INSIDE

What's in the Box?

A complete system

- 7" color LCD high resolution screen with 2X Zoom Capability and RAM mount
- 25' System Power and Video Cable and 12 volt Power cable
- Mounting Hardware And Pan Tilt Assembly
- Integrated FLIR Thermal Camera
- Wireless Dash Control/Remote



-The **Thermal PTZ** is a low cost, high resolution thermal imaging system that allows the user to see in total darkness. Utilizing a 320 x 240 resolution FLIR Camera, the system can easily see man sized targets from over 1500 feet. The thermal core uses long-wave infrared sensor technology and can easily see through smoke, fog, rain and many other atmospheric conditions that could not easily be penetrated with other technologies

-The **Thermal PTZ camera** offers full 360° rotation and 135° tilt for complete situational awareness. Models include either a hard wired toggle control or wireless handheld or dash mounted remote controls. The RF wireless remote controls can be programmed to a desired frequency for uninterrupted use with one or multiple systems. The **system** is easily mounted using an innovative mounting plate with underlocking interface, a simple two step mounting process. The pan/tilt enclosure uses high torque motors with encased metal gears for trouble free operation.

-The **Thermal PTZ** is enclosed in a weatherproof housing that is UV Ray and saltwater resistant for both land and sea applications. The entire system operates on a 12V DC platform and is ideally suited for vehicles and watercraft. Whether used for Law Enforcement, First Responders or Surveillance and Security applications, the **system** is the product of choice based on price and performance.

FLIR PathFindIR Inside

- Type & Material: 320 x 240 Uncooled Microbolometer-
- Field of View: 35° H x 27° V
- Spectral Band: 8-14 Microns Long Wave Infrared (LWIR)
- Pan / Tilt: 370° Rotation / 135° Tilt
- Speed: Fast / Slow
- Operation: Wired / Wireless Remote Control Options
- Power Requirement: 9-16 VDC Power: 12 VDC
- Video Output: NTSC / Pal
- Dimension: 6.76" x 7.25" x 8" Weight: 4 lbs.
- Video: BNC / RCA Quick Disconnect
- Warranty: 1 Year Limited
- Hertz: 30 Hertz for North America Not For Export.
- Export Model Available in 9 HZ.

Classification Information: 30 Hz. Version

These products are controlled for export under US Department of Commerce (DOC), Export Administration Regulations (EAR), Export Control Classification Number (ECCN) 6A003.b.4.b. These cameras contain a focal plane array controlled to 6A002.a.3.f. U.S. Government authorization may be required for all destinations except Canada

Classification Information: 9 Hz. Version

These products are controlled for export under US Department of Commerce, Export Administration Regulations (EAR), Export Control Classification Number (ECCN) 6A993. They may be exported under ECCN 6A993, NLR (No License Required) to all countries except terrorist supporting countries (Country Group E:1), unless otherwise prohibited.



MINE RESCUE: WE SEE IN THE DARK

WINSTED GROUP INC.
6436 Hwy 89 RR2
ALLISTON, ON
1-866-542-1343

HAND HELD THERMAL IMAGING SYSTEM FOR MINE RESCUE

FLIR HANDHELD

LOW-COST, HIGH-PERFORMANCE LINE OF
HANDHELD PERSONEL CAMERAS

USING THE SAME TECHNOLOGY AS FLIR'S OTHER BEST-IN-CLASS THERMAL NIGHT VISION SYSTEMS, FLIR HANDHELDS GIVE WORKERS THE INFORMATION THEY NEED TO SEE, IN SITUATIONS WHERE VISIBILITY IS LIMITED, IN ORDER TO STAY SAFE.

◀ SEE CLEARLY IN TOTAL DARKNESS – UNLIKE OTHER NIGHT VISION SYSTEMS, FLIR HANDHELDS REQUIRES NO LIGHT AT ALL.

◀ IDENTIFY PERSONNEL DISABLED IN THE DARK, SEE HOT SPOTS ON CONVEYOR BEARINGS BEFORE THEY GO, AND INSTANTLY IDENTIFY ANYTHING WARMER THAN THE AIR TEMPERATURE

◀ WALK WITH CONFIDENCE IN DARKNESS OR SMOKE KNOWING THAT YOU CAN SEE WHAT LIES AHEAD.



E
X
A
M
P
L
E



AVAILABLE FOR LESS THAN \$3,000, FLIR HANDHELDS ARE AFFORDABLE ENOUGH FOR EVERY CREW.

ABOUT THERMAL NIGHT VISION

FLIR HANDHELD THERMAL NIGHT VISION CAMERAS DISPLAY IMAGES BY DETECTING AND DISPLAYING TINY DIFFERENCES IN HEAT, NOT LIGHT. EVEN THE FRICTION FROM A PERSON'S FINGER, AND THE HEAT FROM A HAND ON A WALL LEAVES ENOUGH THERMAL ENERGY BEHIND TO SHOW UP CLEARLY TO THE FLIR HANDHELD.

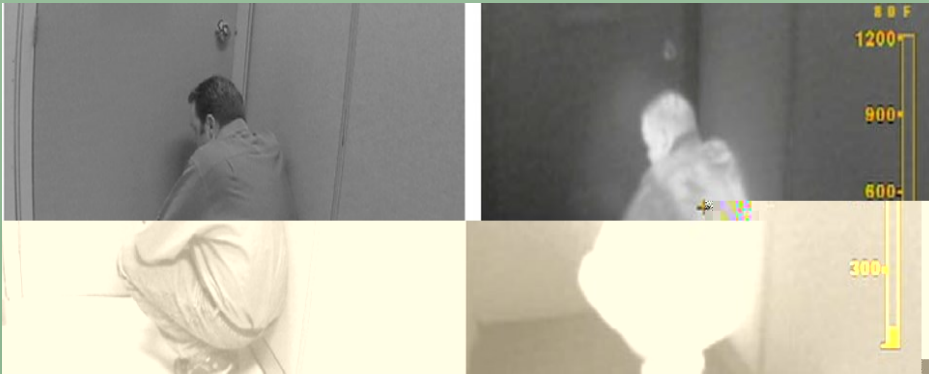
EVERYTHING GENERATES THERMAL ENERGY, EVEN ICE! AND EVEN THOUGH THERMAL ENERGY IS INVISIBLE TO THE NAKED EYE, FLIR HANDHELD THERMAL NIGHT VISION CAMERAS CAN DETECT IT AND TURN IT INTO A VIDEO IMAGE THAT IS EASY TO UNDERSTAND, ALLOWING YOU TO SEE WHAT YOUR EYES NEVER COULD.



www.MOBILESAFETY.NET
www.EQUIPMENTCAMERA.COM
CONTACT SALES@MOBILESAFETY.NET

Downhole Thermal Rescue Camera

Combines the benefits of remote thermal imaging and BW video into a downhole system



Camera:

- Rugged, weather-resistant
- Built-in covert infrared illumination
- Switch Between Thermal and BW Video Camera instantly
- Suited for both tactical and rescue missions

Cable Reel:

- 166 feet (50 M) of video and audio signal transmission cable spooled onto one compact reel
- Slip rings provide constant video and audio signals to monitor even while cable is being spooled on or off reel.
- Portable and extremely rugged to withstand any rescue mission

Integrated Monitor with Case:

- Rugged and weatherproof
- Adjustable display viewing angle
- Body-worn with supplied harness
- On screen camera illumination scale and battery life indicators
- Simple knob adjustments for screen brightness, contrast, color and image mirror

Audio Module:

- Audio Module connects between cable or pole and camera.

1 Rescue Reel



2 Dual Mode Thermal Camera



3 Integrated Monitor with Case



4 Audio Module



Explosion Proof Cameras



- Explosion Proof Cameras
- IP66 Waterproof/Dustproof
- High Resolution 700 TVL Cameras
- SONY ExView Super HAD II Sensor
- Epoxy Coated Die Cast Housing
- CSA/FM/ATEX/IEC Approvals



Certifications

FM Approvals

Explosion-proof for Class I, Division 1, Groups B, C and D; Dust ignition-proof for Class II/III, Division 1, Groups E, F and G, hazardous (classified) locations, indoors and outdoors (Type 4X/IP66)

CSA

Explosion-proof for Class I, Division 1, Groups B, C and D; Dust ignition-proof for Class II/III, Division 1, Groups E, F and G, hazardous (classified) locations, indoors and outdoors (Type 4X/IP66)

ATEX

Ex tD A21, II 2 G D, Ex d II
IP68, Ta: -40°C to +85°C

IEC-EX

Ex d I C, Ex A21 I D, IP68
Ta: -40°C to +85°C

Explosion Proof IP Series OTI-C3-IP2MVF



Features

- 2 Megapixel CMOS Sensor
- 2.8~12mm Varifocal Auto-Iris Lens
- Max. 30fps @ 2MP (1920x1080)
- Dual Stream(H.264, MJPEG)
- PoE or 12V DC Power
- CSA / FM / ATEX / IEC Approvals
- IP66 Waterproof / Dustproof

System Integration

Protocols: HTTP, RTP/RTSP, TCP/IP, FTP, Telnet, RARP, PPPoE, SNMP, PAP, CHAP, DHCP, NTP, SMTP client, uPNP, and etc.

Supports both ONVIF (Profiles) and PSIA(v1.0) standards

System Hardware

32bit Embedded CPU / Embedded Linux / 128MByte SDRAM / 128MByte NAND Flash

Alarm Management

Trigger Conditions: Video loss / Video recovered / Motion detection (144 area) / Boot finished / Schedule

Enclosure Certifications

FM Approvals

Explosion-proof for Class I, Division 1, Groups B, C and D;

Dust ignition-proof for Class II/III, Division 1, Groups E, F and G, hazardous (classified) locations, indoors and outdoors (Type 4X/IP66)

CSA

Explosion-proof for Class I, Division 1, Groups B, C and D;

Dust ignition-proof for Class II/III, Division 1, Groups E, F and G, hazardous (classified) locations, indoors and outdoors (Type 4X/IP66)

Camera with Vibration Mount



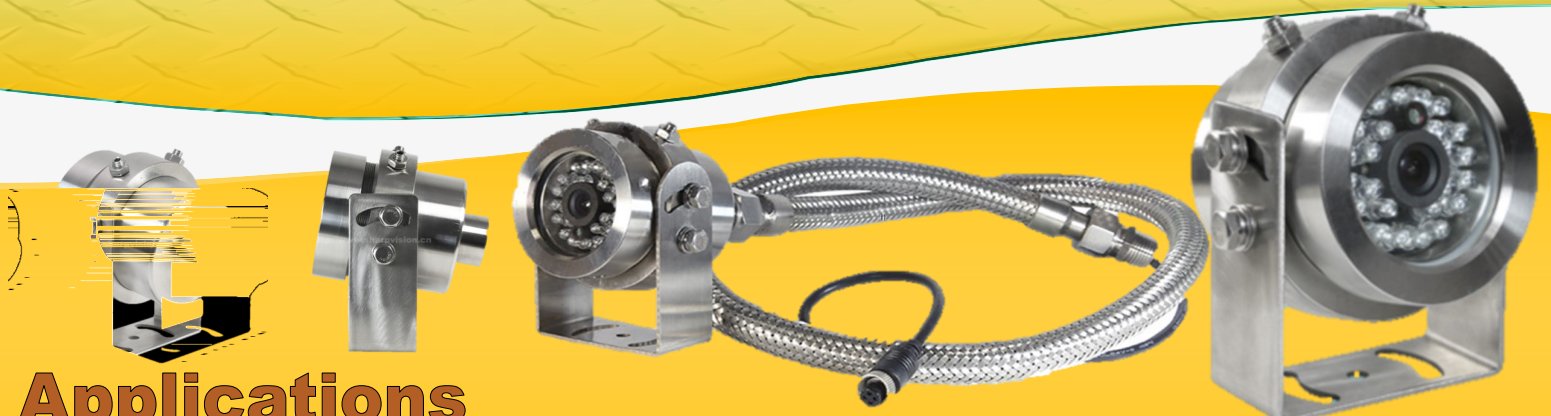
Specifications	OTI-C3-IP2MVF
Video Encoding	H.264/MJPEG(simultaneous dual stream)
	H.264/H.264 (true H.264 dual streaming)
	Simultaneous streaming with independent control
Resolution	1920x1080, 1280x720,640x352, 320x176, 160x96
Serial Interface	Console, By-pass command to control UART device
Bandwidth Management	Frame rate control / Bandwidth control / CBR / VBR
External Interface	10/100-Base-T Ethernet (auto-sensing), 1 DI/DO(3.3V TTL),
Image Sensor	1/2.9" progressive scan CMOS
	Total number of pixels: 2000Hx1241V=2.48M
	Pixel size : 2.5 8 (H) μm × 2.5 8 (V) μm
	Color filter Bayer arrangement of primary colors: R, G, B
	Bit number of internal ADC: 10/12 bits
	Parallel output: 37.125 MHz, 10/12 bits
Image Controls	Day & Night (Auto/B&W/Off), AWB, Noise Filter (Off/On),
Illumination	0.0016 Lux
Lens	3.8mm, Fixed, F2.0
Housing	Epoxy Coated Die Cast Aluminum (Copper Free)
Power	POE or 12V DC (4.8W Max. Consumption)
Color	Pantone 293 Blue
Ground Screws	Internal & External
Cover Set Screw	Tamper Resistant Cover Set Screws
O Ring	Buna N
Conduit Connections	2 x 1/2" NPT Standard Connections
External Mounting Holes	2 x 0.33in / 8.4mm
Dimensions (H x W)	4.86 x 5.65 inches / 12.4 x 14.4 cm
Weight	5 lbs (2.27 kg)
Operation Temp.	-40C ~ 50C

Explosion Proof Camera

WATERPROOF

DUSTPROOF

ANTI-SHOCK



Applications

With its high resolution, stainless steel exterior and built-in 15m infrared lamp; the Explosion Proof Camera is perfect for Chemical Factories, Oil & Biogas Plants, Refineries, and all mining applications.



Marine Surveillance



Tanker & Transport Trucks

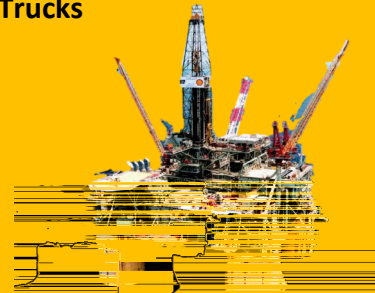
Chemical Factories, Oil & Biogas Plants, Refineries, and all mining applications.



Coal Mining



Chemical Factories



Oil Rigging

Specifications:

Image Device: 1/3" SONY EXview HAD CCD II

TV System: PAL/ NTSC

Effective Pixels: 976(H)*582(V)/ 976(H)*494(V)

Sensing Area: 5.58mmx4.67mm

Scanning System: 2:1 Interlace

Resolution: 700TV Lines



Explosion proof camera on the side of a Tanker truck



Explosion proof camera on the back of a Tanker truck



MSHA APPROVED 

UNIFICATION SYSTEM

