FFT Secure Pipe

HIGH PERFORMANCE PIPELINE PROTECTION

FFT Secure Pipe detects and locates intrusions and Third Party Interference anywhere along thousands of kilometres of buried pipeline, in real-time, before actual pipeline damage occurs.

FFT Secure Pipe uses a fibre optic cable installed above the pipeline as the sensor, detecting and pinpointing intrusion location to within between 25 metres (80 feet) for intrusions close to the sensing cable up to 150 metres (500 feet) for intrusion activity away from the cable.

FFT's industry leading advanced signal processing minimises nuisance alarms, without compromising the sensitivity of the system.
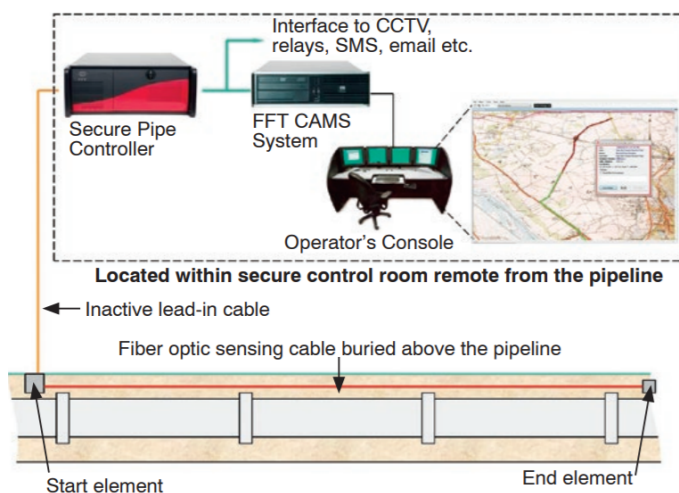
HOW IT WORKS

Event analysis is used to identify different events within the detected signal, differentiating between potential intrusions and background noise, removing those nuisance events while retaining legitimate intrusion information.

FFT Secure Pipe delivers the precise information your security staff need, combined with the ability to interface with and activate CCTV camera systems, lighting, SCADA, plus a broad range of external devices and systems.

Connecting FFT Secure Pipe to FFT CAMS, the location of an intrusion along with the GPS co-ordinates is instantly displayed onto an overlay map and the event logged to a secure database.

KEY BENEFITS

- Simple installation and virtually maintenance free operation delivers a cost effective yet flexible pipeline protection solution without compromising on performance.

- Detect digging activities and vehicle movements occurring above the pipeline—before the pipeline is breached or damaged.

- Know exactly where to dispatch your security and maintenance staff to ensure rapid response.

- Each controller protects up to 40km (25 miles) of pipeline. Using FFT supplied and already installed fibre optic cable.

- Powerful interfacing options through FFT CAMS™ to other FFT products, plus third party devices and systems.

- Peace of mind with FFT's two year warranty backed up by a global network of offices providing support in more than 69 countries.

Interface to CCTV, relays, SMS, email etc.

Secure Pipe Controller

FFT CAMS System

Operator's Console

Located within secure control room remote from the pipeline

← Inactive lead-in cable

Fiber optic sensing cable buried above the pipeline

Start element

End element

KEY FEATURES

- Provides valuable real-time warning of Third Party Interference (TPI) activities
- A single system protects up to 40km (25 miles) of sensor cable
- Locate intrusions to within 25 metres to 150 meters (80 feet to 500 feet)
- Low total cost of ownership (TCO)
- No electronics or power in the field—intrinsically safe
- Two year warranty

SPECIFICATIONS

Fibre Optic Sensor	Can use existing dark single mode fibres if suitable, or FFT's custom single mode fibre optic sensor cable. Expected life > 20 years.
Sensing Configuration	Distributed sensor with up to 40km or 25 miles of sensor cable protected per controller, total power budget of 25dB. Multiple systems can be networked to protect longer pipelines—up to thousands of kilometres.
Location Accuracy	Within 25 meters (80 feet) for close activity, up to within 150 meters (500 feet) for detecting activity away from the sensor cable.
Zone Length and Number	Infinitely variable 'Virtual Zones' are created in the FFT CAMS software to suit specific site requirements.
Operating Temperature Range	FFT Sensor Cables: -55°C to +70°C (-67°F to +160°F) Controller (head end): 0°C to +45°C (32°F to +113°F)
Controller Dimensions/Weight	177mm H x 482mm W x 497mm D (7.0"H x 19.0"W x 19.6"D) 19" rack mounted, 4U high, weight 24kg (53lbs)
Electrical Specifications	Input voltage 110–240V AC, 50–60Hz, auto ranging, 148W consumption, internal redundant power supplies. Optional 48V DC available. Note: All field-installed components are passive and require no power, communications, or electronics on the pipeline.
System Interface	Interface (via TCP/IP and FFT CAMS) to more than 40 security, video and access control management systems and to a wide range of devices including security cameras, lighting, PLCs, SNMP, email and text messaging. Optional dry contacts.
Warranty	Comprehensive two year warranty with ongoing warranty extension program available for the life of the product.
Seasonal Calibration	No seasonal calibration or adjustments required.
Regulatory Certification	CE certified, FCC Part 15 subpart B Class B.