DUAL- VISION CAMERA FOR AUTOMATIC INCIDENT DETECTION
ITS-Series Rail

The FLIR ITS-Series Rail is an integrated thermal camera and detector for people and obstacle detection in public transportation environments. The FLIR ITS-Series Rail camera does not need light to operate, but uses thermal energy to detect vehicles, people and large animals in the darkest of nights, over a long range and in the most difficult weather conditions. The result is reliable, 24/7 detection for a wide range of applications.

PLATFORM, TUNNEL AND TRACK SAFETY
FLIR ITS-Series Rail provides reliable detection of people falling off a platform, entering a tunnel or walking on rail tracks.

OBSTACLE DETECTION AT LEVEL CROSSINGS
FLIR ITS-Series Rail detects vehicles that got stuck on a level crossing and are blocking the passage of an approaching train.

FIRE DETECTION IN TUNNELS
FLIR ITS-Series Rail measures the temperature of any object in its field of view, which allows it to detect fires at an early stage.

SPECIFICATION

System Overview	
Detector type	Focal Plane Array (FPA) uncooled VOx microbolometer
Spectral range	7.5 to 13.5 µm
Resolution	640 x 512
Field of View	90° x 69° 69° x 56° 44° x 36° 32° x 26° 25° x 19° 17° x 14°
Image processing	Automatic Gain Control (AGC), Digital Detail Enhancement (DDE)
System Features	
Automatic heater	Clears ice from windows. Automatic deicing
Fire Detection	Early fire detection in tunnels
Image presentation	
Video over Ethernet	Two independent channels of H.264 or M-JPEG
Analog video output	Configurable NTSC and PAL
Analytics	
Trackside Monitoring	Automatic detection of people on and alongside the tracks with advanced train filtering
Level crossing safety	Detection of stopped vehicles on a level crossing
Fire Detection	Early Fire detection in tunnels

Power Consumption						
Consult product manuals for detailed power requirements	Source	POE (802.3af)	POE+ (802.3at)	12VDC	24VDC	24VAC(VA)
	Heater off	<5.5W	<5.5W	<5.5W	<5.5W	<8W
	Heater on (@ 100%)	N/A	<25W	<25W	<25W	<32W

Environmental	
IP Rating	IP66 & IP67
Operating Temperature Range	-50°C to 70°C (continuous operation) -40°C to 70°C (cold start)
Storage Temperature Range	-50°C to 85°C/-58°F to 185°F
Humidity	0-95% relative humidity
Shock	MIL-STD-810G "Transportation"
Vide	IEC 60068-2-27
Approval	
Approvals	CE: EN55022 Class A; FCC 47 CFR Part 15, Subpart B, Class A (within CISPR 22:2008 Class A limits)
Surge Immunity on AC Power Lines	EN 55024: 2010 and 55022: 2010 to 4.0kV on AC aux power lines;
Surge Immunity on Signal Lines	EN 50130-4:2011; IEC 62599-2:2010
Standard package	
Thermal imaging camera, operator manual	