



# FLIR D-Series ITS

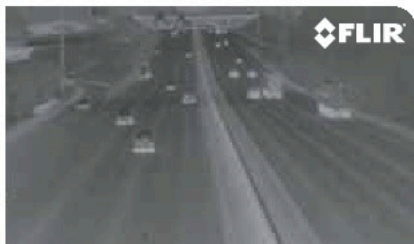
## Thermal Traffic Cameras In Outdoor Dome Enclosures

D-Series thermal imaging cameras make it possible to observe traffic clearly in total darkness and in bad weather. The D-Series outdoor dome enclosure provides precision pan/tilt control. Combined with FLIR's video detection analytics, the FLIR D-Series ITS offers an advanced incident detection and data collection system.

Fully enabled for control and operation over IP and serial networks, D-Series systems deploy a 640 x 480 pixel thermal imager along with a day/night 36x zoom color CCD camera.

FLIR's D-Series thermal multi-sensor traffic dome cameras are the perfect replacement for day/night dome cameras, providing clear 24/7 imaging capability in an attractive, discrete dome-style enclosure.

All versions are equipped with a long range daylight/low light camera. The daylight camera offers an 36x optical zoom.



Traffic monitoring



Automatic Incident Detection

### PRECISE PAN/TILT MECHANISM

All D-Series ITS thermal imaging cameras come with a precision pan/tilt mechanism. It allows the user to rotate the camera 360° continuously and to tilt it +20° to -90°. This drastically increases situational awareness. The Pan/Tilt has 128 preset positions. Ideal if you want to scan an area continuously.

### IP CONTROL

The D-Series can be integrated in any existing TCP/IP network and controlled over a PC. No additional cables are required. Using this configuration, you can monitor all traffic over the network, even when you are thousands of kilometers away.

Multiple channels of streaming digital video are available in H.264, MPEG-4, or M-JPEG formats. Simultaneous digital and composite video output is standard.

### CONTINUOUS E-ZOOM

The optionally available continuous e-zoom provides enhanced alarm assessment and optimization of camera field of view.



## Imaging Specifications

System Overview		FLIR D-Series ITS	
<b>Thermal:</b>			
Detector type	Focal Plane Array (FPA), uncooled Vanadium Oxide microbolometer		
Number of pixels	640 x 480		
Spectral range	7.5 to 13.5 $\mu\text{m}$		
Thermal sensitivity	<50 mK f/1.0		
Image frequency	NTSC: 30Hz or 7.5Hz PAL: 25Hz or 8.33Hz		
Focus	Focus free, athermal lens		
Electronic zoom	2x, 4x		
Image processing	Automatic Gain Control (AGC), Digital Detail Enhancement (DDE)		
<b>Visual:</b>			
Built-in digital video	1/4" Exview HAD CCD		
Effective pixels	380,000		
Standard lens performance	FOV: 57.8° (H) to 1.7° (V) f=3.4mm (wide) to 122.4 mm (tele), F1.6 to F4.5		
Optical zoom	36x		
Electronic zoom	12x Up to 4x continuous E-zoom for 640 x 480 models optionally available		
<b>Sensor resolution</b>			
Name/Focal length/Field of view	D-645: 13 mm lens - FOV: 45° (H) x 37° (V) D-625: 25 mm lens - FOV: 25° (H) x 20° (V) D-618: 35 mm lens - FOV: 18° (H) x 14° (V)		
<b>Pan- Tilt</b>			
Pan angle / speed	Continuous 360°; 0.1° to 60°/sec		
Tilt angle / speed	Ball-Up +90 to -90, Ball-Down +23 to -90		
Tilt Speed	0.5 to 60deg/sec		
Programmable presets	128		
<b>System features</b>			
Automatic heater	Clears ice from windows Automatic deicing, tested according to MIL-STD-810F Method 521.1		
<b>Image presentation</b>			
Video output	PAL thermal and visible - NTSC thermal and visible		
Video over Ethernet	Two independent channels for each camera (4 total) of streaming MPEG-4, H.264, or M-JPEG		
Streaming Resolutions	NTSC: D1 (720x480), 4SIF (704x480), VGA (640x480), SIF (352x240) and QVGA (320x240) PAL: D1 (720x576), 4CIF (704x576), CIF (352x288)		
Thermal AGC Modes	Auto AGC, Manual AGC, Plateau Equalization AGC, Linear AGC, Auto Dynamic Detail Enhancement (DDE), Max Gain Setting.		
Thermal AGC Region of Interest (ROI)	Default, Presets and User definable to insure optimal image quality for subjects of interest		
<b>Power</b>			
Requirements	24 VAC (21-30 VAC) 24 VDC (20-30 VDC)		
Consumption	24 VAC: 85 VA max. 24 VDC: 75 W max.		
<b>Environmental specification</b>			
Operating temperature range	-25°C to +70°C		
Storage temperature range	-55°C to +85°C		
Encapsulation	IP56 (IEC 60529)		
Vibration	Mil-Std-810F transportation		
Shock	IEC 60068-2-27		

Physical characteristics	
Camera Weight	8.3 kg
Camera Size (W x H)	203 x 432 mm
Shipping weight (camera + packaging)	9.5 kg
Shipping size (camera + packaging) (L x W x H)	495 mm x 305 mm x 305 mm
<b>Interfaces</b>	
TCP/IP	Yes
RS-422	Yes
RS-232	Yes
Pelco D	Yes
Bosch	Yes
<b>Network</b>	
Supported Protocols	IPv4, HTTP, Bonjour, UPnP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, ICMP, IGMP, DHCP, ARP, SCP
Network Application Programming Interfaces (APIs)	Nexus SDK for comprehensive system control and integration Nexus CGI for http command interfaces ONVIF compatible
<b>Approvals</b>	
EN 61000-6-4: 2007 Class A/CISPR 22: 2005 Class A	
EN 61000-3-3: 1995+A1:2001+A2:2005	
EN 61000-3-2: 2006	
EN 50130-4: 1996+A1:1998+A2:2003	
FCC Part 15, Subpart B, Class A	
IP 56 (IEC 60529)	
IEC 60068-2-27	
<b>Standard package</b>	
Thermal imaging camera, operator manual, FLIR Sensors Manager single sensor CD	

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