Hazardous Area Product Guide

IV&C

INDUSTRIAL
VIDEO & CONTROL
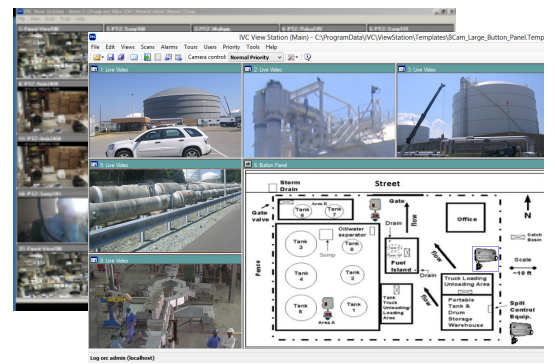
Welcome to the IVC
Industrial Hazardous Area Video Product Guide

This guide has been developed to give you a sense of our comprehensive hazardous area video solutions. Get complete product specifications, information about our solutions, and application notes by visiting our web site, www.ivcco.com, or by calling 617-467-3059.
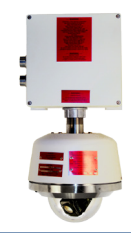
IVC Cameras - IVC is an industry leader in the development of state-of-the-art video surveillance and monitoring systems that are built to operate reliably in demanding environments. IVC's customer list includes leading petrochemical and manufacturing companies, major military contractors, and municipal port authorities. Our camera line includes high speed PTZ domes, megapixel, fixed auto-zoom, and thermal cameras. All camera types are shipped IP-ready and can accommodate fiber, copper, or wireless network connections.

Should our standard product offering not fit your needs, we can work with your engineers to design a custom solution that exactly meets your requirements. IVC has manufactured custom solutions to meet a wide variety of unique environmental and operational demands.

Camera Management Software - IVC's software suite provides a state-of-the-art framework for controlling and monitoring video from geographically dispersed networks of cameras. Our software allows you to view live and stored video from a web-based client or user-configured fat client. IVC's software also includes sophisticated alarm management that provides a mechanism for easily integrating other process and security components with the video system.

IVC Software includes APIs to facilitate the integration of video and camera controls into SCADA HMI control screens or custom applications.

Camera Model	AMZ-3041-2	AMZ-HD41-2	APTZ-3045-04	APTZ-3045-07	APTZ-341-22
Rating	Class I Division 1 Class 2 IECEx	Class I Division 1 Class 2 IECEx	Class I Division 1	Class I Division 1	Class I Division 2
Enclosure Options	Stainless steel Cast aluminum	Stainless steel Cast aluminum	Stainless steel	Stainless steel	Stainless steel dome All stainless steel option available
Imager	1/3" DPS CMOS	1/2.8 Progressive Scan CMOS	1/4" Sony ExView CCD	1/2.8" CMOS	1/4" Sony ExView CCD
Resolution	525 TV lines (NTSC) 625 TV lines (PAL)	1920 x 1080 pixels	550 TV lines	1920 x 1080 pixels	704 x 480 pixels 352 x 240 pixels
Field of View	Multiple fixed- and vari-focal lens options available	33.2° - 83.7°	1.7° - 57.8°	2.11° - 58.9°	1.7° - 57.8°
Zoom Ratio	N/A	3x Optical	36x Optical	30x Optical	36x Optical
Video	NTSC/PAL	MJPEG, H.264	NTSC/PAL	MJPEG, H.264	MJPEG, H.264
Ethernet	N/A	100BASE-T	N/A	100BASE-T	100BASE-T 100BASE-FX 1000BASE-FX
Frame Rate	30 FPS	30 FPS	30 FPS	30 FPS	30 FPS
Voltage Required	12 VDC or 24 VAC	12 VDC, 24 VAC, 802.3af PoE	90-240 VAC 50/60 Hz	90-240 VAC 50/60 Hz	100 - 120 VAC 220 - 240 VAC
Operating Temperature	-40° - 60°C	-29° - 50°C -10° - 50°C (PoE)	-40° - 60°C	-25° - 50°C	-29° - 50°C

Compact HD Fixed Camera

AMZ-HD41-2

- 1080p IP video

- 3x motorized zoom

- Integrated IR illuminators

- 12 VDC; 24 VAC; PoE

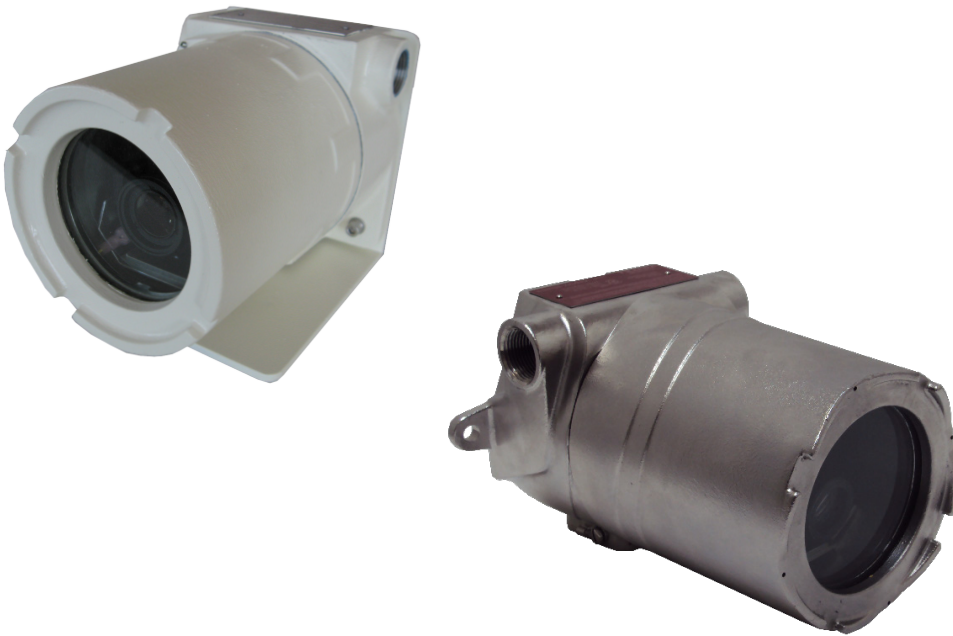- Wide dynamic range

- Certified for use in hazardous areas

Imager	1/2.8" Progressive Scan CMOS
Resolution	1920 x 1080
Shutter	1 to 1/10,000 Seconds
Minimum Illumination	0 lux to 25m with illuminators
WDR	On/Off/Auto
Image Features	Auto Exposure, Auto White Balance, Auto and Manual Iris, Back Light Compensation
Focus	Auto
Zoom Ratio	3x Optical Zoom
View Angle	33.2° - 83.7°
Focal Length	3 – 9 mm
F-number	1.2 - 2.1
Network	10/100 BASE-T (RJ-45)
Frame Rate	30 FPS
Protocols	TCP/IP, HTTP, FTP, SMTP
Weight	8.1 lbs. (Aluminum Enclosure) 10.2 lbs. (Stainless Steel Enclosure)

Voltage Required	12VDC, 24VAC (Outdoor versions), IEEE 802.3af PoE (Indoor version)
Power Consumption	25 W Max (Outdoor version) 10.5 W Max (Indoor version)
Operating Temperature	-29° to 50° C (Outdoor version) -10° to 50° C (Indoor version)
Dimensions	5.50" H x 5.50" W x 7.75" D (Aluminum) 5.50" H x 5.50" W x 8" D (Stainless Steel)
Mount	Wall Mount Standard
Protection Class	NEMA Type 4x, IP66
Regulatory Approvals	
Safety	Conforms to UL STD 61010-1 + UL1203 Certified to CSA STD CSA22.2 NO.30 + CAN/CSA C22.2 No. 25 EN 60079-0:2012, EN 60079-1:2007, EN 60079-31:2009. ATEX 94/9/EC.
Hazardous Area	Class I Groups B, C & D, Class II Groups E, F & G, Class III Type 4x Class I Zone 1 AEx d IIC Ex d IIC IEC 60529, T6

Compact Analog Fixed Camera

AMZ-3041-2

- -40° to 60° range of operation

- Integrated IR illuminator options

- 12 VDC and 24 VAC versions

- Wide dynamic range

- Certified for use in hazardous areas

Imager	1/3" DPS CMOS
Resolution	525 TV lines (NTSC) 625 TV lines (PAL)
Auto Iris	DC iris
Minimum Illumination	0 lux to 25m with illuminators
WDR	On/Off/Auto
White Balance	Auto
Gain	Auto
S/N Ratio	50 dB (p-p/rms) or better
F-number	1.4
Focal Length	Multiple lens options
Video Output	VBS 1.0V p-p/75 Ohms
Weight	8.1 lbs. (Aluminum Enclosure) 10.2 lbs. (Stainless Steel Enclosure)

Voltage Required	12 VDC or 24 VAC
Power Consumption	19.2 W Max.
Operating Temperature	-40° to 60° C
Dimensions	5.50" H x 5.50" W x 7.75" D (Aluminum) 5.50" H x 5.50" W x 8" D (Stainless Steel)
Mount	Wall Mount Standard
Protection Class	NEMA Type 4x, IP66
Regulatory Approvals	
Safety	Conforms to UL STD 61010-1 + UL1203 Certified to CSA STD CSA22.2 NO.30 + CAN/CSA C22.2 No. 25 EN 60079-0:2012, EN 60079-1:2007, EN 60079-31:2009. ATEX 94/9/EC.
Hazardous Area	Class I Groups B, C & D, Class II Groups E, F & G, Class III Type 4x Class I Zone 1 AEx d IIC Ex d IIC IEC 60529, T6

Stainless Steel PTZ

PTZ-3045-XX

- HD or SD video

- 30x or 36x motorized zoom

- IP or analog

- 90 - 240 VAC

- 316L stainless steel

- Certified for use in hazardous areas

Image Features	Auto Exposure, Auto White Balance, Auto and Manual Iris, Auto Focus
Pan Angle	360°
Pan Speed	40° per second
Tilt Angle	-90° to 90° (180° view range)
Tilt Speed	40° per second
Voltage Required	90 - 240 VAC
Current	≤ 500mA
Operating Temperature	-25° to 50° C
Weight	48.5 lbs.
Dimensions	15.3" H x 13.4" W x 9.2" D
Mount	Pedestal
Protection Class	NEMA Type 4
Regulatory Approvals	
Hazardous Area	Class I Division 1 Groups B, C, & D T6 Tamb +50°C (+122°F) Class I Zone 1 Group IIB H2 ATEX (pending)

APTZ-3045-04 - Analog SD PTZ	
Imager	1/4" Sony ExView CCD
Resolution	550 TV lines
Shutter	1 to 1/10,000 Seconds
Minimum Illumination	0.7 Lux (Color); 0.01 Lux (B/W)
Zoom Ratio	36x Optical Zoom
View Angle	1.7° - 57.8°
Focal Length	3.4 - 122.4 mm
F-number	1.6 to 4.5

APTZ-3045-07 - IP HD PTZ	
Imager	1/2.8" CMOS
Resolution	1080p
Shutter	1/25 to 1/10,000 seconds
Minimum Illumination	Color: 0.05 Lux; B/W: 0.02 Lux
Zoom Ratio	30x Optical Zoom
View Angle	2.34° - 59.8°
Focal Length	4.5 – 144.0 mm
F-number	1.6 - 4.8
Network	10/100 BASE-T (RJ-45)
Frame Rate	30 FPS
Protocols	TCP/IP, HTTP, FTP, SMTP

High-speed IP PTZ Dome

APTZ-3142-22

- Day/night switching; IR sensitive

- 36x Optical Zoom

- 115 VAC or 230 VAC versions

- Fiber connection options

- Certified for use in hazardous areas

Imager	1/4" Sony ExView CCD
Resolution	704 x 480 and 352 x 240 pixels
Shutter	1 to 1/10,000 seconds
Minimum Illumination	0.7 Lux (Color); 0.01 Lux (B/W)
Image Features	Auto Exposure, Auto White Balance, Auto and Manual Iris, Auto Focus
Zoom Ratio	36x optical
View Angle	1.7° - 57.8°
Focal Length	3.4 - 122.4 mm
F-number	1.6 to 4.5
Pan Angle	360°
Pan Speed	360° per second
Tilt Angle	-90° to 0° (113° view range)
Tilt Speed	360° per second
Network	100Base-TX/10BaseT (RJ-45), 100Mb or 1 Gb Fiber

Frame Rate	30 FPS
Protocols	TCP/IP, HTTP, FTP, SMTP
Compression	MJPEG, H.264
I/O	1 input, 1 output
Voltage Required	110-120 VAC, or 220-240 VAC
Power Consumption	120 W max.
Operating Temperature	-29° to 50° C
Weight	22 lbs.
Dimensions	21.625" H x 10" W x 11.5" D
Mount	Wall Mount Standard
Protection Class	NEMA Type 4x
Regulatory Approvals	
Hazardous Area	Class I Division 2, Groups A-D, T4

Applications

Since 2001, IVC has manufactured comprehensive video solutions for surveillance and monitoring of industrial facilities, military installations, and municipal sites. Because we bring networking, video, manufacturing, and software expertise to every project, IVC can tailor a video solution that exactly meets your needs. Our ruggedized cameras and camera management software are being used in a variety of applications including:

- Industrial Security/Process Monitoring
  - Refineries
  - Chemical Plants
  - Metals Manufacturing
  - Mines
  - Pipelines
- Marine
  - Oil & Gas Platforms
  - Offshore Missile Platform
  - Coast Guard Cutters
  - Navy Support Vessels
- Traffic Monitoring

- Utilities
  - Water Treatment
  - Electrical Substations
- Homeland Security
  - Ports/Harbors
  - Locks / Dams / Waterways
  - Airports
  - Military Bases
- Government Facilities
  - Schools
  - Prisons
  - Parks

MADE IN THE USA

ISO 9001 Certified

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