

ZCAM4-DI

GEN3 - HAZARDOUS AREA DUAL IMAGING PTZ CAMERA

DS-108 Issue 02

ZIZCAM Ltd are a UK based manufacturer of CCTV Cameras for use in the Hazardous Oil, Gas and Petrochemical industries.

Consequently our products are very robust and designed to comply with international standards.

Please do not hesitate to contact us for further information on our products we look forward to working with you on a project soon...

ZIZCAM FOR HAZARDOUS AREAS

Dual Full HD IP Visual & Thermal Imaging Camera

Continuous 360 degree rotation

Direct drive, Zero backlash Brushless DC motors

Outstanding accuracy and dynamic range

AISI 316L Stainless Steel

ONVIF Profile S & T compliant

Direct Fibre output or Ethernet



The ZCAM4-DI Dual Imager uses technology new to the CCTV industry, providing outstanding and ultra-reliable performance. Each axis is driven directly without intermediate belts or gears by our unique brushless DC digital servo drives to give a previously unattainable level of positional accuracy, repeatability, zero backlash, smoothness and silent operation, resulting in long life and maintenance free device with low cost of ownership.

The ZCAM4-DI motors have positional intelligence and will maintain or recover to its correct position immediately in heavy winds or being knocked out of position.

The ZCAM4-DI is constructed entirely from AISI 316L stainless steel for low maintenance and protection from corrosion, small in appearance, lightweight and designed for easy installation and maintenance.

Certified for use in ATEX/IECEX hazardous gas and dust environments, the ZCAM4-DI range provides for all requirements of safety and surveillance monitoring for hazardous areas.

ZIZCAM LIMITED

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Technical Specifications

General Specifications	
ATEX Hazardous Area Rating:	II 2 G Ex db, eb, op-pr, IIC T6-T4, Gb, Tamb -60°C to +70°C II 2 D Ex tb IIIC T135°C Db
IECEX Hazardous Area Rating:	Ex db, eb, op-pr, IIC T6-T4, Gb, Tamb -60°C to +70°C Ex tb IIIC T135°C Db
CE Approval:	CE Compliant to ATEX 2014/34/EC and EMC 2014/30/EU Directives
Construction:	Stainless Steel AISI 316L
Supply Voltage:	48VDC 2.0A max (Optional factory fitted 85-264VAC Mains PSU in base)
Power Consumption:	72 Watts max
Cable Entries:	1 x M20 1xM25 Ex d barrier gland entry at base, Power, Ethernet CAT6 or Fibre Optic field cables
Weight:	26Kg
Mounting:	4 x M10 fixings on 164mm PCD
Certified Temperature Rating:	-60°C to +70°C
Operating Temperature:	-20°C to +60°C standard (-40°C & -60°C option on request)
Ingress Protection:	IP66, IP67 & IP68
Pan Tilt Unit	
Pan Angle:	360° continuous rotation
Tilt Angle:	+90°/-90° max from horizontal (360° continuous rotation option)
Pre-set positions:	200 Fitted as standard, optical encoder.
Positioning accuracy:	+/-0.05°
Speed:	Variable 0.05 to 180°/sec Pan and Tilt (nominal) zero backlash. Proportional Pan/Tilt control, continually matches pan and tilt speeds to zoom position
Telemetry Control Receiver Driver	
Pan Tilt Motor Drive:	48VDC variable speed, brushless DC servo drives
Lens Control:	Via integral IP ONVIF interface
Communication:	ONVIF Ethernet to VMS or Web browser, internal RS485 telemetry control for PTZ and wash wipe
Wiper:	Fitted as standard (integrated control)
Telemetry & Auxiliary relay Protocols:	Pelco P and D as standard, or to customer specification, configured via web page or VMS
Auxiliary Relays:	1 x 24VDC relay for washer system, connected in base mount.

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Zoom Camera Module: Sony HD IP 2MP 30x Zoom	
Imager:	1/2.8" Type Exmor R CMOS Sensor
Effective Pixels:	2.13 Megapixels
Output Pixels H x V:	1920x1080, 1280x720
Signal system:	HD: 1080p/60, 1080p/59.94, 1080p/50, 1080p/30, 1080p/29.97, 1080p/25, 1080i/60, 1080i/59.94, 1080i/50, 720p/60, 720p/59.94, 720p/50, 720p/30, 720p/29.97, 720p/25
Optical Zoom:	30x
Digital Zoom:	OFF/ON (max. 12x)
Focal Length:	f = 4.3 (WIDE) to 129.0 (TELE) mm - (F1.6 to F4.7)
Horizontal angle of view:	Approx. 63.7 degree (WIDE end), Approx. 2.3 degree (TELE end)
Focussing system:	Auto (Sensitivity: normal, low), One-push AF, Manual, Infinity, Interval AF, Zoom Trigger AF, Near Limit, Focus Compensation with IR lighting
Day & Night:	Auto/Manual (ICR) Colour / B/W
AE Control:	Full Auto, Shutter Priority, Iris Priority, Manual, Exposure Compensation, Slow AE, Back Light Compensation, Slow Shutter - Auto/Manual, Min shutter limit
Wide Dynamic Range:	O (DOL method, (90dB 1080p60, 130dB 1080p30)
Noise Reduction:	Yes 6 steps (2DNR 3DNR separate mode)
Shutter speed:	1/1 to 1/10000 sec. (22 steps)
White Balance:	Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium Vapor Lamp Fix/Auto/outdoor, One-push, Manual
Sensitivity:	Colour: 0.01L (1/30 sec, 50% IRE, High Sens ON) Mono: 0.0015L (1/30 sec, 50% IRE, High Sens ON)
Image Stabilisation:	Yes

Thermal Imager Module:	Low Resolution	High Resolution
Imager:	Uncooled VOx Microbolometer, PAL/NTSC Composite Video	
Spectral Range:	7.5 to 13.5µm, Long wave infra red (LWIR)	
Resolution:	324 x 256 pixels	640 x 512 pixels
Frequency:	9Hz thermal scan rate, encoded via H.264 IP encoder	
Sensitivity:	<30mK sensitivity, Histogram, Mean, Meridian AGC modes	
Imaging modes:	White hot/ Black hot imaging modes	
Lens options:	50mm 9.1° HFOV (standard), 35mm 13° HFOV,	50mm 12.4° HFOV (standard), 35mm 18° HFOV,
Digital Zoom:	Yes	Yes

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Networking features :	
Ethernet connection:	RJ-45 (10/100,1000Mps) single output from dual encoder for 2 Camera channels. or Direct Single Mode Fibre Optic output from media converter in base mount.
Video Codecs:	Full HD IP encoder, up to 1080p at 60 fps, H.265(HEVC), H.264 (AVC) and MJPEG
Encoder Resolutions:	Channel1 - 1080p (2MP), 1280x1024, 720p (1MP), 480p, 576p, 1024x576, 704x576, 640x480, 640x360, 420x380, 352x576, 352x288, 352x240, 320x240, 320x180. Channel2 Thermal Camera – 320x180 to 640x480.
Video bitrate:	2K to 100Mbps max.
Streaming:	Supports Unicast and Multicast streaming
Output format:	RTP, RTSP, UDP, TSRTSP, TSFILE, RTMP, RTMPS, MP4
Security:	Login authentication, Password protected, User Log
Operation:	Via Web Page, ONVIF® Profile S & T Compliant, various VMS clients.

Models

Low Resolution Thermal Models:

ZCAM4-DI-TIL-*** Exd IIC Integrated Pan Tilt variable speed 0 to 180°/sec, with dual sensor housing, complete with 30x zoom HD IP visual camera module, Low resolution 324 x 256 pixels Thermal imager Camera, with integral heater demister and sunshield.

ZCAM4-DI-W-TIL-*** Exd IIC Integrated Pan Tilt variable speed 0 to 180°/sec, with dual sensor housing, complete with 30x zoom HD IP visual camera module, Low resolution 324 x 256 pixels Thermal imager Camera, with integral window wiper, heater demister and sunshield.

High Resolution Thermal Models:

ZCAM4-DI-TIH-*** Exd IIC Integrated Pan Tilt variable speed 0 to 180°/sec, with dual sensor housing, complete with 30x zoom HD IP visual camera module, High resolution 640x512 pixels Thermal imager Camera, with integral heater demister and sunshield.

ZCAM4-DI-W-TIH-*** Exd IIC Integrated Pan Tilt variable speed 0 to 180°/sec, with dual sensor housing, complete with 30x zoom HD IP visual camera module, High resolution 640x512 pixels Thermal imager Camera, with integral window wiper, heater demister and sunshield.

*Add suffix ****

HV1, for integral 85-264VAC Mains PSU option.

Blank for standard 48VDC supply option.

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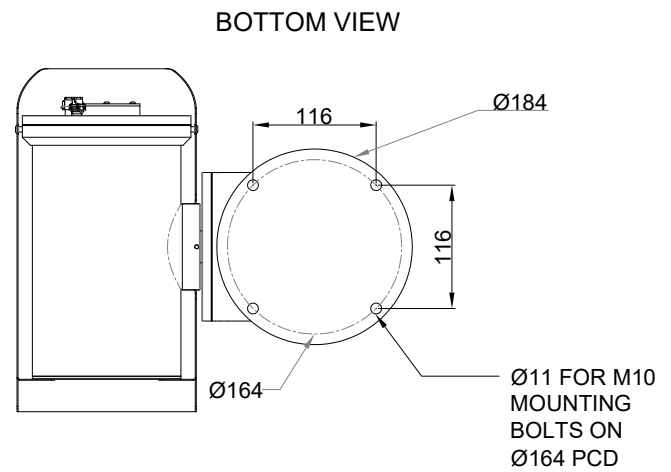
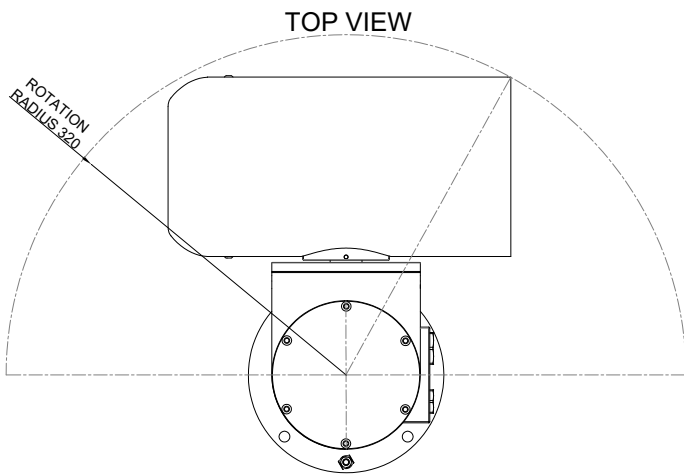
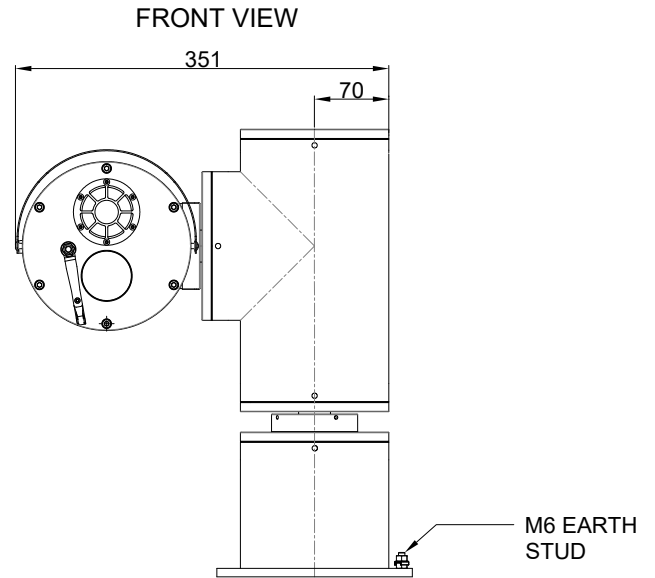
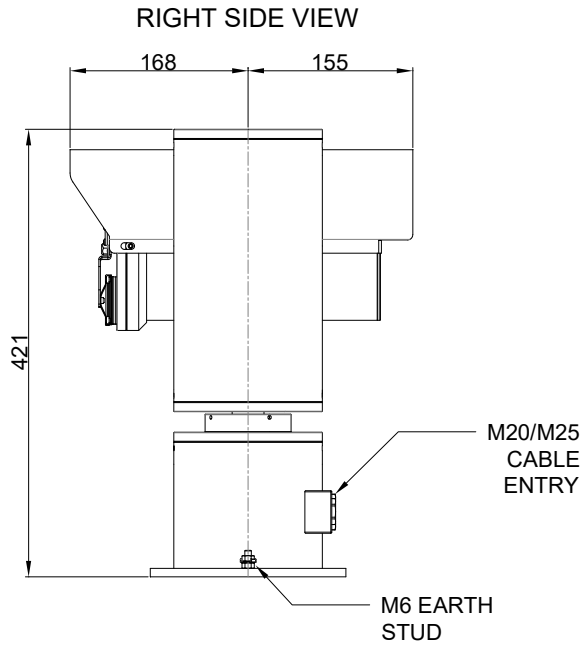
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Dimensions (model shown ZCAM4-DI-W)



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