

COEX™ C3000 4K IP TriMode PTZ Camera Station

The COEX™ C3000 4K IP TriMode PTZ Camera Station has a unique compact and lightweight design developed specifically for hazardous-area applications. C3000 camera stations are designed for both toughness and durability as demanded for operation in the most adverse of environments, providing unprecedented visual feedback in all lighting conditions.



COEX C3000 hazardous-area camera stations operate in the most extreme environments worldwide. Designed for toughness, durability, and certified to perform in ambient temperatures from -55°C to +70°C without compromise, they are ideal for oil and gas, marine, and industrial installations.

This premium-performance camera station combines Full 4K video with 20x optical zoom and the latest thermal imaging technology, providing comprehensive coverage of a wide range of specific site applications where the benefits of using visible and thermal imaging are required.

Featuring the latest encoding technology (3rd generation IP encoder), the camera station is capable of quad-stream H.264 and H.265 encoding for simultaneous live view and recording.



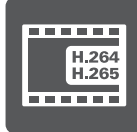



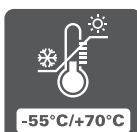




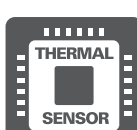


Utilising the advanced radiometry feature, the camera station can provide real-time temperature data and differential temperature monitoring of critical devices and applications.

The C3000 4K IP TriMode PTZ Camera Station has cybersecurity measures built-in, including encrypted video streaming, HTTPS, and 802.1x protocols.

This camera station is compatible with a variety of VMS platforms through ONVIF Profile S and T compliance.

Options

- Integral wiper
- COEX FEWS3 wash systems
- Continuous rotation
- Advanced radiometry[®]

| | | |
|---|---|--|
|  ATEX |  IEC/IECEX |  H.264 H.265 |
|  IP66/IP68 |  316L STAINLESS STEEL |  ONVIF S/T |
|  -55°C/+70°C |  4K UHD |  TRIMODE |
|  RADIOMETRICS |  Quad Streaming |  THERMAL SENSOR |
|  20x ZOOM |  CYBERSECURITY | |

Specifications

| CERTIFICATIONS / RATINGS ⁵ | | [OPTIONS] |
|--|--|---|
| ATEX / IECEx / UKCA | ATEX II 2GD, Ex db IIB/IIC Gb; Ex tb IIIC Db; T4 / T5 / T6 EN60079-0, EN60079-1, EN60079-31, IEC60079-0, IEC60079-1, IEC60079-31 | |
| ATEX / IECEx / UKCA Certified Temperature | -55°C to +40°C (T6), +50°C (T5), +60/70°C (T4) | |
| EMC | EN61000-6-2, EN 61000-6-4, Class A limits | |
| CE / UKCA | IEC62368-1, IEC60825-1 | |
| DNV | TAA00001M2 | |
| INMETRO | BRA 24.GE0010X | |
| ENVIRONMENTAL | | |
| Operating Temperature | -45°C to +70°C / -49°F to +158°F | |
| Storage Temperature | -45°C to +80°C / -49°F to +176°F | |
| Ingress Protection | IP66 & IP68 (30m Submersion for 4 hrs) to IEC60529, Type 6 Enclosure | |
| Salt Mist | IEC60068-2-52 & IEC60945 Section 8.12 | |
| Vibration | 0.7 g to IEC60068-2-6 & IEC60945 | |
| Wind Loading | Operational to 130 km/h, survival to 268 km/h | |
| Humidity | 5% to 95% | |
| MECHANICAL | | |
| Material | Electro-polished 316L stainless steel | |
| Window | Optical: HD grade toughened glass, thermostatically operated demister [Wiper ²] Thermal: Germanium window with DLC (Diamond-Like Carbon) coating and impact guard | |
| Pan Turning Circle | Ø 660 mm / 25.98" | |
| Tilt Turning Circle | Ø 416 mm / 16.38" | |
| Mounting Orientation | Upright or inverted | |
| Mounting Base | 4 x M8 tapped holes, equispaced on a 4" (101.6 mm) P.C.D. | |
| Dimensions* ¹ (W x D x H) | 430 x 310 x 368 mm / 16.93" x 12.21" x 14.49" | |
| Weight* ¹ | 29 kg / 63.9 lb | |
| Cable Gland Entries | 2 x M20 | |
| ELECTRICAL | | |
| Power Requirements | 24 V AC/DC (±10%) 50/60 Hz | |
| Power Consumption* ¹ | 11 VA Quiescent 72 VA Operating 80 VA Operating (with heater) 100 VA Max | |
| Wash Control* ¹ | 24 V AC/DC (0.75 A max) switched output | |
| Auxiliary Inputs* ³ | 1 x contact closure input (5 V pull up) [additional inputs available on request] | |
| Relay Outputs* ³ | 1 x volt free switched output (24 V 0.75 A max) [up to 2 available on request] | |
| Audio* ³ | [Line Input] | |
| CAMERA OPERATION | | |
| | 362° Rotation | [Continuous Rotation] |
| Pan Operation | 0° to 42°/sec, mechanical limits, programmable soft-stops, preset positioning | 0° to 42°/sec, programmable soft-stops, preset positioning |
| Tilt Operation | 180° Rotation, 0° to 21°/sec, mechanical limits, programmable soft stops, preset positioning | |
| Preset Memory | 128 user programmable preset positions (pan, tilt, zoom and focus), preset accuracy <0.05°, absolute positioning | |
| PTZ Features | Proportional pan & tilt control in relation to zoom depth, intelligent focus | |
| Wash/Wipe* ¹ | [Optional wash/wipe with auto-wiper off] | |
| ONVIF Control Features | PTZ control (continuous, relative and absolute), focus control, preset store/recall, auxiliary controls (wash/wipe/auto focus), wash/wipe control mappable to ONVIF presets for control systems that have no support for auxiliary commands, alarm inputs, and relay outputs | |

| DAY/NIGHT CAMERA / LENS | |
|--|--|
| Image Sensor | 1/2.5 Exmor-R CMOS sensor |
| Signal System | 4K 2160p 25/29.97 FPS FHD 1080p 25/29.97/50/59.94 FPS |
| Effective Pixels | 8.51 mega pixels |
| Zoom Range | 20x zoom (up to 240x with digital zoom) |
| Focal Length/Aperture | 4.4 mm (wide) to 88 mm (tele), F2.0 to F3.8 |
| Angle of View (H) | 70.2° (wide) to 4.1° (tele), 60° (wide) to 3.5° (tele) with image stabilizer on |
| Minimum Illumination (50IRE, High Sensitivity Mode) | 0.4 lux (1/30 s) 0.06 lux (1/4 s, 1/3 s) |
| Minimum Illumination (50IRE) | 1.6 lux (1/30 s) 0.21 lux (1/4 s, 1/3 s) |
| Electronic Shutter | 1/1 to 1/10,000 sec, 28 steps |
| Signal/Noise Ratio | > 50 db (weight on) |
| Features | Digital zoom on/off, auto/manual focus, auto/manual iris, auto/manual IR cut filter remove (ICR), auto exposure (AE), automatic gain control (AGC), auto white balance (AWB), backlight compensation (BLC), auto slow shutter, visibility enhancer (VE), defog, highlight compensation (HLC), Noise Reduction (NR) |
| Image Stabilization | EIS |

| OTHER THERMAL IMAGER | T306 | T318 | T614 | T618 | T624 | T636 |
|-------------------------------|---|--------------|---------------|---------------|---------------|--------------|
| Image Sensor | Uncooled LWIR VOx microbolometer | | | | | |
| Pixel Pitch | 12 µm | | | | | |
| Thermal Sensitivity | <50 mK at f/1.0 | | | | | |
| Spectral Response | 8 - 14 µm | | | | | |
| Refresh Rate | <9Hz [$<60\text{Hz}$] [25 Hz / 30 Hz] | | | | | |
| Pixel Resolution ⁶ | 320 x 256 | | | 640 x 512 | | |
| Fixed Focal Length | 6.3 mm f/1.0 | 18 mm f/1.0 | 14 mm f/1.0 | 18 mm f/1.0 | 24 mm f/1.0 | 36 mm f/1.0 |
| Angle of View | 34.1° x 27.3° | 12.7° x 9.7° | 30.7° x 24.8° | 24.3° x 19.5° | 18.2° x 14.6° | 12.2° x 9.8° |
| Features | 8x digital zoom, auto/manual gain mode (AGC), auto/manual FFC(NUC), selectable colour palettes, second generation digital detail enhancement (DDE), image optimisation, active contrast enhancement (ACE), information based histogram equalisation (IBHEQ) | | | | | |
| Advanced Radiometry | When used with Synergy, the advanced radiometry feature provides four regions of interest per preset position that can be individually monitored or compared against one another for temperature threshold changes. | | | | | |

| VIDEO ENCODING | |
|---------------------------------|---|
| Compression Standards | H.264 (MPEG4 part 10/AVC) high, main, base profiles H.265 (MPEG-H part 2/HEVC), MJPEG |
| Bitrate Mode | Constant Bitrate (CBR), Variable Bitrate (VBR) |
| Encoding Capability | Simultaneous streaming of both color and thermal images Up to 2 independently configurable encoded video streams per image sensor |
| Stream Bitrate ⁴ | 100 kb/s to 25 Mb/s |
| Image Resolution ^{4/6} | Day/Night Camera: 4K (3840 x 2160), Full HD 1080p (1920 x 1080), 720p (1280 x 720), D1 (720 x 576/480), 4CIF (704 x 576), CIF (352 x 288) Thermal Imager: Native (640x512 or 320x256), D1 (720 x 576/480), VGA (640 x 480), QVGA (320 x 240) |
| Image Rate ⁴ | Thermal (Full, half, quarter, sixth), 4K (up to 60 IPS) |
| GOP Structure | I-frame only, 5 to 240 frames |
| Region of Interest (ROI) | Configurable per encoded video stream, ability to crop a selected area of the image source for encoding (variable resolution and aspect ratio) |

| AUDIO ENCODING | |
|-----------------------|---|
| Compression Standards | ARM AACLC, ARM AACLC MPEG2, ARM AACHE, ARM AACHE V2 |
| Sample Rate | 48 kHz, 44.1 kHz, 32 kHz, 16 kHz |
| Stream Bitrate | 12 to 384 kb/s (AACHE and AACHE V2 32 to 64 kb/s) |

| NETWORK DEVICE | |
|---|--|
| Interface Options | Ethernet (100Base-T, 10-Base-T), Auto/full/half duplex, Auto/10/100, Configurable MTU Size |
| Protocols | TCP/IP, UDP, ICMP, DHCP, DNS, HTTP, HTTPS, NTP, RTSP/RTP/RTCP, TSRTSP, RTMP, RTMPS, SRT, IGMP, SNMP, SYNS, SSL, TLS, 802.1x (EAP) |
| Control Protocol | SYNS, ONVIF (Profile S, T compliant) |
| Video Stream Delivery | RTSP/RTP (Unicast: UDP/TCP, Multicast UDP), TSRTSP, RTMP, RTMPS, SRT |
| Network Discovery | SYNS, WS-Discovery (ONVIF) |
| Device Security | Multiple users and 7 access levels protecting access to the web interface, ONVIF and RTSP services, HTTPS support, HTTP disable, 802.1x (EAP), video streaming disabled until change of default password, unicast stream disable |
| Supported Internet Browsers ^{*7} | Chrome/Firefox/Edge (No Active-X browser components required) |
| System Maintenance | Field upgradeable firmware, diagnostic logs Hardware system supervisor providing temperature management, cold-start, auto-shutdown and watchdog control |

NOTE: *1 Dependent on certification and equipment fitted. *2 Wipers are consumable items that need regular replacement. Please refer to the manual for recommendations and maintenance. *3 Dependent on cable tail option. *4 Maximum permissible resolution, bitrate and framerate per additional stream will be reduced dependent on the configuration of the primary stream. *5 Exact certification requirements must be specified at the time of order. *6 Dependent on lens selection. *7 Other browsers may be compatible but not tested. *8 Advanced Radiometrics Service Pack 1. Advanced Radiometrics Service Pack 2 with added bonus features to follow.

PART CODE STRUCTURE

C3 - A B C D - E - F G H J

(Example) C3 - 2 V 85 T306 - W - B 1 E X

A - CAMERA HOUSING SIZE
2 Size 2 camera housing

B - FIXED/PTZ
C PTZ - Continuous pan
V PTZ - Non-continuous pan

C - DAY/NIGHT CAMERA
85 4K UHD, 20x zoom

D - THERMAL IMAGING MODULE
T306 Medium resolution, 35° HFOV
T318 Medium resolution, 13° HFOV
T614 High resolution, 32° HFOV
T618 High resolution, 25° HFOV
T624 High resolution, 18° HFOV
T636 High resolution, 12° HFOV

E - WIPER
Without wiper
W Standard wiper
B Brush wiper

J - SPECIAL
Standard build
X Special build

H - OUTPUT TRANSMISSION TYPE
E Ethernet Base-T

G - BASE/MOUNTING TYPE
1 Standard PTZ mounting

F - TECHNOLOGY SERIES
B 3rd Gen, IP encoder