COEX™ C3000 HD IP TriMode PTZ Camera Station with Integrated Junction Box

The COEX C3000 HD IP TriMode PTZ Camera Station with Integrated Junction Box has been 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 HD (1080p) video with 30x 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.

Utilizing the advanced radiometry feature, the camera station can provide real-time temperature data and differential temperature monitoring of critical devices and applications. The C3000 HD IPTriMode PTZ Camera Station with Integrated Junction Box has cybersecurity measures built-in, including encrypted video streaming, HTTPS, and 802.1x protocols.

Providing the capability for the direct entry and termination of field cables, the self-contained junction box also accommodates the management of fiber optic cores, power supply, and optional media converters for signal transmission.

This camera station is a versatile option for pre-existing systems, ensures a straightforward installation process, and is compatible with a variety of VMS platforms through ONVIF Profile S and T compliance.

Options

- Integral wiper
- COEX FEWS3 wash systems
- Advanced radiometry
- Continuous rotation
- Integral fiber optic transmission
- Various voltage options 24 V AC/DC and (100 to 240) V AC
- Media converter (Coax)

































Specifications

CERTIFICATIONS / RATINGS*8		[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	Pending	
INMETRO	BRA 21.GE0018X	

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];
VVIIIdovV	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	8 x M8 tapped holes, equispaced on a 4" (101.6 mm) P.C.D.
Dimensions*1 (W x D x H)	429 x 310 x 443 mm / 16.89" x 12.21" x 17.44"
Weight*1	33 kg / 72.8 lbs
Cable Gland Entries*3	3 x M20 / [3 x M25] / [3 x 1/2" NPT]

ELECTRICAL	Integrated PSU	(Without Integrated PSU)		
Input Power Options	(100 to 240) V AC 50/60 Hz 24 V AC/DC (±10%) 50/60 Hz			
Power Rating	1.5 A max @ 100 V (Inrush 30 A max)	-		
Power Consumption	40 VA Quiescent 99 VA Operating (with heater) 115 VA Max	11 VA Quiescent 72 VA Operating 80 VA Operating (with heater) 100 VA Max		
Wash Control*1/5	24 V DC (0.75 A max) switched output [Volt free (2.5 A 240 V AC max) switched output] [Switched live (0.2 A) with neutral 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	0° to 42°/sec, programmable soft-stops,			
Tan Operation	soft-stops, preset positioning	preset positioning			
Tilt Operation	180° rotation, 0° to 21°/sec, mechanical limits, p	rogrammable soft stops, preset positioning			
Preset Memory	128 user programmable preset positions (pan, tilt, zoom and focus), preset accuracy <0.05°,				
Treset Memory	absolute positioning				
PTZ Features	Proportional pan & tilt control in relation to zoom depth, Intelligent focus				
Wash/Wipe*1/2	[Optional wash/wipe with auto-wiper off]				
	PTZ control (continuous, relative and absolute), foci	us control, preset store/recall, auxiliary controls			
ONVIF Control Features	(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	1/2.8" 2MP Starvis 2 CMOS sensor
Signal System	1080p 25/30/50/60 FPS
Effective Pixels	Approximately 2.13 megapixels
Zoom Range	30x zoom (up to 360x with digital zoom)
Focal Length/Aperture	4.3 mm (wide) to 129 mm (tele), F1.6 to F4.7
Angle of View (H)	Approx. 64.0° (Wide) to 2.4° (Tele)
Minimum Illumination (50% IRE, High Sensitivity Mode ON)	ICR-OFF mode: 0.009 lx (Shutter Speed: 1/30 s), 0.0012 lx (Shutter Speed: 1/4 s or 1/3 s) ICR-ON mode: 0.00008 lx (Shutter Speed: 1/30 s)
Minimum Illumination (50% IRE, High Sensitivity Mode OFF)	ICR-OFF mode: 0.09 lx (Shutter Speed: 1/30 s), 0.012 lx (Shutter Speed: 1/4 s or 1/3 s) ICR-ON mode: 0.00063 lx (Shutter Speed: 1/30 s)
Minimum Illumination (30% IRE, High Sensitivity Mode ON)	ICR ON mode: 0.000005 lx (Shutter Speed: 1/4 s or 1/3 s, 30%)
Wide Dynamic Range	On/off
Electronic Shutter	Auto 1/1 to 1/10,000 sec, 22 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, wide dynamic range (WDR), defog, on-screen text display (OSD), image invert
Image Stabilization	Super Image Stabilizer (Super/Super+)

THERMAL IMAGER	T306	T318	T618	T636
Image Sensor		Uncooled LWIR VC	Ox microbolometer	
Pixel Pitch		12	μm	
Thermal Sensitivity		<50 mk	Cat f/1.0	
Spectral Response		8 - 14	4 μm	
Refresh Rate		>9Hz [>60Hz]	[25 Hz / 30 Hz]	
Pixel Resolution*9	320 x	256	640 ×	: 512
Fixed Focal Length	6.3 mm f/1.0	18 mm f/1.0	18 mm f/1.0	36 mm f/1.0
Angle of View	34.1° × 27.3°	12.7° × 9.7°	24.3° x 19.5°	12.2° x 9.8°
Depth of Field	1.0 m	8.1 m	8.1 m	32.4 m
Features	8x digital zoom, auto/manual gain mode (AGC), auto/manual FFC (NUC), selectable color palettes, second generation digital detail enhancement (DDE), image optimization, active contrast enhancement (ACE), information based histogram equalization (IBHEQ)			
Advanced Radiometry	, 0,	•	ture provides four regions of ir	the state of the s

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 day/night and thermal images Up to 2 independently configurable encoded video streams per image sensor
Stream Bitrate*7	100 kb/s to 25 Mb/s
Image Resolution*7/9	Day/Night Camera: 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*7	Thermal (Full, half, quarter, sixth), HD (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*6	Ethernet (100Base-T, 10-Base-T), Auto/full/half duplex, Auto/10/100, Configurable MTU Size [Fiber optic SFP connectivity] [Media converter]
Protocols	TCP/IP, UDP, ICMP, DHCP, DNS, HTTP, HTTPS, NTP, RTSP/RTP/RTCP, TSRTP, 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), TSRTP, 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	Chrome/Firefox/IE/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

[FIBER OPTICS]*6	100FxLP	100Fx/20km	100Fx/30km	100WLFxA	1000Lx	1000WLxA
Optical interface	100Base-Fx	100Base-Fx	100Base-Fx	100Base-Fx	1000Base-Lx	1000Base-Lx
Fibers Required	Dual	Dual	Dual	Single	Dual	Single
Wavelength	1310 nm	1310 nm	1310nm	Tx 1310 nm Rx 1550 nm	1310 nm	Tx 1310 nm Rx 1550 nm
Transmit Optical Power	(-20 to -10) dBm	(-15 to -8) dBm	(-5 to 0) dBm	(-14 to -8) dBm	(-9 to -3) dBm	(-9 to -3) dBm
Receive Sensitivity	< -31 dBm	< -31 dBm	< -31 dBm	< -33 dBm	< -22 dBm	< -22 dBm
Standard Optical Link Budget	> 11 db	> 16dB	> 26dB	> 19dB	> 13dB	> 13dB
Optical Connector	LC	LC	LC	SC	LC	SC
Fiber Management	Integral fiber management with termination capacity for spare fiber cores					
Features	[Link loss forwarding, fault detection] Link loss forwarding, fault detection					

[MEDIA CONVERTER]*6	Ethernet over Coax
	Auto-optimizing for 75 Ω coaxial cable:
Connectivity	280m (920ft) full-rate over video-grade RG-59 (Up to 350m depending on cable quality)
	350m (1150ft) full-rate over RG-6
	500m (1640ft) full-rate over RG-11
Interface Data Rate	Auto-configuring for speed (10BASE-T or 100BASE-T) and duplex
Features	Retrofit existing analog CCTV installations to Ethernet-based systems, allow the connectivity of camera stations outside the permitted run length of 100Base-Tx Ethernet cabling

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. *5 Wash output relay option shall be specified at the time of order. *6 Exact interface option and media type must be specified at the time of order. Maximum transmission distance dependent on cable infrastructure quality and integrity. *7 Maximum permissible resolution, bitrate and framerate per additional stream will be reduced dependent on the configuration of the primary stream. *8 Exact certification requirements must be specified at the time of order. *9 Dependent on lens selection.

PART CODE STRUCTURE СЗ Α В С D Е F G Н J (Example) \bigvee 95 T306 \bigvee В A - CAMERA HOUSING SIZE J-SPECIAL Size 2 camera housing Standard build X Special build B - FIXED/PTZ H-OUTPUT TRANSMISSION PTZ - Continuous pan TYPE PTZ - Non-continuous pan C Coax Ε Ethernet Base-T C-DAY/NIGHT CAMERA Singlemode fibre 95 HD (1080p), 30x zoom M Multimode fibre **D-THERMAL IMAGING MODULE** G-BASE/MOUNTING TYPE T306 Medium resolution, 34.1° HFOV T318 Medium resolution, 12.7° HFOV Base type 3 (with PSU) T618 High resolution, 24.3° HFOV Base type 4 (without PSU) High resolution, 12.2° HFOV T636 F-TECHNOLOGY SERIES E-WIPER B 3rd Gen, IP encoder Without wiper W Standard wiper В Brush wiper