

# COEX™ C3000 4K IP PTZ Camera Station with Integrated Junction Box

The COEX™ C3000 4K IP 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.



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 advanced camera station combines 4K video with a 20x optical zoom to deliver high-quality image and detail capture.

Featuring the latest encoding technology (2<sup>nd</sup> generation IP encoder), the camera station is capable of triple-stream H.264 and H.265 encoding for simultaneous live view and recording.

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

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

This camera station is a versatile choice 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
- IR lamp\*1
- 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 <sup>7</sup>		[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), +50/60°C (T5), +70°C (T4)	
CSAus Class / Division	Class I, Div 1, Groups A, B, C, D; Class II, Div I, Groups E, F, G; T4 / T5 / T6	
CSAus Class / Zone	Class I, Zone 1, AEx db IIC Gb; Zone 21, AEx tb IIIC Db; T4 / T5 / T6	
CSAus Standards	FM3600, FM3615, FM3616, UL50, UL50E, UL62368-1 UL60079-0, UL60079-1, UL60079-31	
CSAus Certified Temperature	-55°C to +40°C (T6), +50/55/60°C (T5), +70°C (T4)	
EMC	EN61000-6-2, EN 61000-6-4 Class A limits	
EMC (US)	FCC CFR47 Part 15 Class A	
CE / UKCA	IEC62368-1, IEC60825-1	
DNV	TAA00001M2	
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	
MECHANICAL		
Material	Electro-polished 316L stainless steel	
Window	4K grade toughened glass, thermostatically operated demister [Wiper <sup>2</sup> ]	
Pan Turning Circle	Ø 560 mm / 22.05"	
Tilt Turning Circle	Ø 360 mm / 14.17"	
Mounting Orientation	Upright or inverted	
Mounting Base	8 x M8 tapped holes, equispaced on a 4" (101.6 mm) P.C.D.	
Dimensions <sup>*1</sup> (W x D x H)	375 x 310 x 443 mm / 14.76" x 12.21" x 17.44"	
Weight <sup>*1</sup>	31 kg / 68.3 lb	
Cable Gland Entries <sup>*3</sup>	3 x M20 / [3 x M25] / [3 x ½" 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 <sup>*1</sup>	40 VA Quiescent 89 VA Operating (with heater) 115 VA Max	9 VA Quiescent 68 VA Operating 81 VA Operating (with heater) 100 VA Max
Wash Control <sup>*1/4</sup>	24 V DC (0.75 A max) switched output [Volt free (2.5 A 250 V AC max) switched output] [Switch live (0.2 A Integrated PSU only) with neutral output]	
Auxiliary Inputs <sup>*3</sup>	1 x contact closure input (5 V pull up) [additional inputs available on request]	
Relay Outputs <sup>*3</sup>	1 x volt free switched output (24 V 0.75 A max) [up to 2 available on request]	
Audio <sup>*3</sup>	[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 and 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/lamps/auto focus), wash/wipe and lamps control mappable to ONVIF presets for control systems that have no support for auxiliary commands, alarm inputs, and relay outputs	
IR Lamp Control*1	Manual/auto control of a connected IR lamp	
IR Focus Compensation*1	Manual/auto control of IR focus compensation and automatic compensation of focus preset positions	

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	Auto (1/1 to 1/10,000 s, 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

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	Up to 3 independently configurable encoded video streams
Stream Bitrate*6	100 kb/s to 25 Mb/s
Image Resolution*6	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)
Image Rate*6	HD (up to 60 IPS), 4K (up to 30 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* <sup>5</sup>	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, 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	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 shut-down and watchdog control

[FIBER OPTICS]* <sup>5</sup>	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	> 16 db	> 26dB	> 19 db	> 13 db	> 13 db
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]* <sup>5</sup>	Ethernet over Coax
Connectivity	Auto-optimizing for 75 Ω coaxial cable: 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. \*4 Wash output relay option shall be specified at the time of order. \*5 Exact interface option and media type must be specified at the time of order. Maximum transmission distance dependent on cable infrastructure quality and integrity. \*6 Maximum permissible resolution, bitrate and framerate per additional stream will be reduced dependent on the configuration of the primary stream. \*7 Exact certification requirements must be specified at the time of order.

## PART CODE STRUCTURE

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

(Example) C3 - 1 V 85 - - W - E 3 E X

### A - CAMERA HOUSING SIZE

1 Size 1 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

N/A

### E - WIPER

Without wiper

### J - SPECIAL

Standard build

X Special build

### H - OUTPUT TRANSMISSION TYPE

C Coax

E Ethernet Base-T

S Singlemode fibre

M Multimode fibre

### G - BASE/MOUNTING TYPE

3 Base type 3 (with PSU)

4 Base type 4 (without PSU)

### F - TECHNOLOGY SERIES

E 2nd Gen, IP encoder