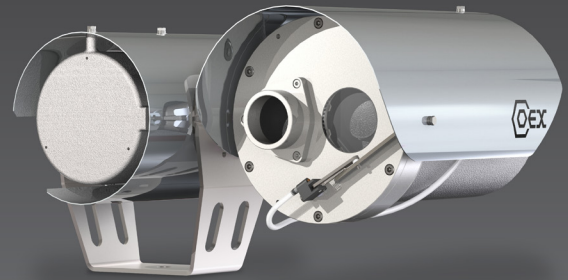


COEX™ C3000 4K IP TriMode Fixed Camera Station with Integrated Junction Box

The COEX™ C3000 4K IP TriMode Fixed 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 4K video with a 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 (2nd 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 4K IP TriMode Fixed 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
- Various voltage options 24 V AC/DC and (100 to 240) V AC
- Ethernet Extender (Coax or Twisted Pair)
- Advanced radiometry
- Integral fiber optic transmission



Specifications

CERTIFICATIONS / RATINGS ⁹		[OPTIONS]
ATEX / IECEx	ATEX II 2GD, Ex db IIB/IIC Gb; Ex tb IIIC Db; T4 / T5 / T6 EN60079-0, EN60079-1, EN60079-28, EN60079-31, IEC60079-0, IEC60079-1, IEC60079-28, IEC60079-31	
ATEX / IECEx 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	IEC62368-1, IEC60825-1	
DNV	Pending	
C-TICK	On Request	

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 200 km/h

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
Mounting Orientation	Upright or inverted
Mounting Base	1 x Ø 13.5 mm / 0.53" fixing hole
Dimensions ^{*1} (W x D x H)	402 x 310 x 239 mm / 15.83" x 12.21" x 9.41"
Weight ^{*1}	23.5 kg / 51.8 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 ^{*1}	40 VA Quiescent 50 VA Operating (with heater) 115 VA Max	9 VA Quiescent 14 VA Operating 22 VA Operating (with heater) 27 VA Max
Wash Control ^{*1/6}	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	
Preset Memory	128 user programmable preset positions (zoom, focus)
Wash/Wipe ^{*1}	[Optional wash/wipe with auto-wiper off]
ONVIF Control Features	Zoom and 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, wide dynamic range (WDR), anti-shake, defog, on-screen text display (OSD), image invert
Image Stabilization	EIS

THERMAL IMAGER	T315	T345	T625	T650
Image Sensor	Uncooled LWIR VOx microbolometer			
Pixel Pitch	17 µm			
Thermal Sensitivity	<50 mK at f/1.0			
Spectral Response	7.5- 13.5 µm			
Refresh Rate	7.5 Hz / 8.3 Hz [25 Hz / 30 Hz]			
Pixel Resolution	336 x 256		640 x 512	
Fixed Focal Length	9 mm f/1.25	25 mm f/1.1	25 mm f/1.1	50 mm f/1.2
Angle of View	35° x 27°	13° x 10°	25° x 20°	12.4° x 9.9°
Depth of Field	1.1 m	11 m	11 m	36 m
Hyperfocal Distance	2.1 m	21 m	21 m	71 m
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)			
Human Detection*4/5	~285 m	~930 m	~930 m	~1700 m

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*8	100 kb/s to 12 Mb/s
Image Resolution*8	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 (640 x 512, 336 x 256), D1 (720 x 576/480), VGA (640 x 480), QVGA (320 x 240)
Image Rate*8	Full, half, quarter, sixth
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*7	Ethernet (100Base-T, 10-Base-T), Auto/full/half duplex, Auto/10/100, Configurable MTU Size [Fiber optic SFP connectivity] [Ethernet Extender]
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]*7	100FxpLP	100Fx	100WLFxA	1000Lx	1000WLxA	1000WLxB
Optical Interface	100Base-Fx	100Base-Fx	100Base-Fx	1000Base-Lx	1000Base-Lx	1000Base-Lx
Fibers Required	Dual	Dual	Single	Dual	Single	Single
Wavelength	1310 nm	1310 nm	Tx 1310 nm Rx 1550 nm	1310 nm	Tx 1310 nm Rx 1550 nm	Tx 1550 nm Rx 1310 nm
Transmit Optical Power	(-20 to -10) dBm	(-15 to -8) dBm	(-14 to -8) dBm	(-9 to -3) dBm	(-9 to -3) dBm	(-9 to -3) dBm
Receive Sensitivity	< -31 dBm	< -31 dBm	< -33 dBm	< -22 dBm	< -22 dBm	< -22 dBm
Standard Optical Link Budget	> 11dB	> 16dB	> 19dB	> 13dB	> 13dB	> 13dB
Optical Connector	LC	LC	SC	LC	SC	SC
Fiber Management	Integral fiber management with termination capacity for spare fiber cores					
Features	[Link loss forwarding, fault detection]			Link loss forwarding, fault detection		

[ETHERNET EXTENDER]*7	Coax	Single Pair UTP
Connectivity	Extended range Ethernet connectivity up to 610 m (2 000 ft)	Extended range Ethernet connectivity up to 305 m (1 000 ft)
Interface Data Rate	100 Mb/s	100 Mb/s
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 Based on Johnson criteria and best conditions. *5 Human detection values shown are nominal values and should be used as estimates only. Exact human detection calculations depend on a wide variety of environmental conditions, video encoding parameters and type of monitor or display used. *6 Wash output relay option shall be specified at the time of order. *7 Exact interface option and media type must be specified at the time of order. Maximum transmission distance dependent on cable infrastructure quality and integrity. *8 Maximum permissible resolution, bitrate and framerate per additional stream will be reduced dependent on the configuration of the primary stream. *9 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 - 2 F 85 T315 - W - E 3 E X

A - CAMERA HOUSING SIZE

2 Size 2 camera housing

B - FIXED/PTZ

F Fixed

C - DAY/NIGHT CAMERA

85 4k UHD, 20x zoom

D - THERMAL IMAGING MODULE

T315 Medium resolution, 35° HFOV

T345 Medium resolution, 13° HFOV

T625 High resolution, 25° HFOV

T650 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

C Coax

U UTP

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

Synectics

sales@synecticsglobal.com

synecticsglobal.com

Specifications subject to change. E & OE.

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MANUFACTURER OF



CAMERA STATIONS

Reference Number:

06DS 0545 Iss 2