COEX™ C3000 4K IP Fixed Camera Station

The COEX™ C3000 4K IP Fixed 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.

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, the camera station is capable of triple-stream H.264 and H.265 encoding for simultaneous live view and recording.

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

COEX camera stations are compatible with a variety of VMS platforms through ONVIF Profile S and T compliance.

Options
- Integral wiper
- COEX FEWS3 wash systems
- IR lamp

SYNNECTICS
Specifications

CERTIFICATIONS / RATINGS

ATEX / IECEx
ATEX II 2GD, Ex db IIb/IIC Db; 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 +50°C (T6), +60°C (T5), +70°C (T4)

CSAus Class / Division
Class I, Div 1, Groups A, B, C, D; Class II, Div 1, 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, UL62388-1, UL60079-0, UL60079-1, UL60079-31

CSAus Certified Temperature
-55°C to +50°C (T6), +55°C / 60°C (T5), +70°C (T4)

CSA Class / Division
Ex db IIIC Gb; Ex tb IIIC Db; Class II, Div 1, Groups E, F, G; Class III, Div 1; T4 / T5 / T6

CSA Standards
C22.2 No. 0, C22.2 No. 60079-0, C22.2 No. 60079-1, C22.2 No. 60079-31, C22.2 No. 600529, C22.2 No. 94.1, C22.2 No. 94.2

CSA Certified Temperature
-55°C to +50°C (T6), +60°C (T5), +70°C (T4)

EMC
EN61000-6-2, EN 61000-6-4 Class A limits

EMC (US & Can.)
FCC CFR47 Part 15 Class A
ICES-003 Class A

CE
IEC60288-1, IEC60625-1

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 IEC600529
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
HD grade toughened glass, thermostatically operated demister [Wiper²]

Mounting Orientation
Upright or inverted

Mounting Base
1 x Ø 12.5 mm / 0.49" fixing hole

Dimensions¹ (W x D x H)
179 x 310 x 235 mm / 7.05" x 12.21" x 9.25"

Weight¹
8 kg / 17.6 lb

Cable Gland Entries
1 x M20

ELECTRICAL

Input Power Options
24 V AC/DC (±10%) 50/60 Hz

Power Consumption¹
8 VA Quiescent
11 VA Operating
24 VA Operating (with heater)
27 VA Max

Wash Control¹
Volt free switched output (24 V 0.75 A max)

Auxiliary Inputs³
1 x contact closure input (5 V pull up) [up to 4 available on request]

Relay Outputs³
1 x volt free switched output (24 V 0.75 A max) [up to 2 available on request]

Audio³
[Line Input]

CAMERA OPERATION

Preset Memory
128 user programmable preset positions (zoom, focus)

Wash/Wipe³
[Optional wash/wipe with auto-wiper off]

ONVIF Control Features
Zoom and 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 Control³
Manual/auto control of a connected IR lamp

IR Focus Compensation³
Manual/auto control of IR focus compensation and automatic compensation of focus preset positions
## Day/Night Camera / Lens

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image Sensor</td>
<td>1/2.5 Exmor-R CMOS sensor</td>
</tr>
<tr>
<td>Signal System</td>
<td>4K 2160p 25/29.97 FPS, FHD 1080p 25/29.97/50/59.94 FPS</td>
</tr>
<tr>
<td>Effective Pixels</td>
<td>8.51 mega pixels</td>
</tr>
<tr>
<td>Zoom Range</td>
<td>20x zoom (up to 240x with digital zoom)</td>
</tr>
<tr>
<td>Focal Length / Aperture</td>
<td>4.4 mm (wide) to 88 mm (tele), F2.0 to F3.8</td>
</tr>
<tr>
<td>Angle of View (H)</td>
<td>70.2° (wide) to 4.1° (tele), 60° (wide) to 3.5° (tele) with image stabilizer on</td>
</tr>
<tr>
<td>Minimum Illumination (ISO, ICR OFF)</td>
<td>0.4 lux (1/30 s), 0.06 lux (1/4 s, 1/3 s)</td>
</tr>
<tr>
<td>Minimum Illumination (ISO, ICR ON)</td>
<td>1.6 lux (1/30 s)</td>
</tr>
<tr>
<td>Electronic Shutter</td>
<td>Auto (1/1 to 1/10 000 s, 28 steps)</td>
</tr>
<tr>
<td>Signal/Noise Ratio</td>
<td>&gt; 50 db (weight on)</td>
</tr>
<tr>
<td>Features</td>
<td>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)</td>
</tr>
<tr>
<td>Image Stabilization</td>
<td>EIS</td>
</tr>
</tbody>
</table>

## Video Encoding

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression Standards</td>
<td>H.264 (MPEG4 part 10/AVC) high, main, base profiles, H.265 (MPEG-H part 2/HEVC), MJPEG</td>
</tr>
<tr>
<td>Bitrate Mode</td>
<td>Constant Bitrate (CBR), Variable Bitrate (VBR)</td>
</tr>
<tr>
<td>Encoding Capability</td>
<td>Up to 3 independently configurable encoded video streams</td>
</tr>
<tr>
<td>Stream Bitrate^4</td>
<td>100 kb/s to 12 Mb/s</td>
</tr>
<tr>
<td>Image Resolution^4</td>
<td>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)</td>
</tr>
<tr>
<td>Image Rate^4</td>
<td>Full, half, quarter, sixth</td>
</tr>
<tr>
<td>GOP Structure</td>
<td>I-frame only, 5 to 240 frames</td>
</tr>
<tr>
<td>Region of Interest (ROI)</td>
<td>Configurable per encoded video stream, ability to crop a selected area of the image source for encoding (variable resolution and aspect ratio)</td>
</tr>
</tbody>
</table>

## Audio Encoding

<table>
<thead>
<tr>
<th>Specification</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Compression Standards</td>
<td>ARM AAACL, ARM AAACL, MPEG2, ARM AACHE, ARM AACHE V2</td>
</tr>
<tr>
<td>Sample Rate</td>
<td>48 kHz, 44.1 kHz, 32 kHz, 16 kHz</td>
</tr>
<tr>
<td>Stream Bitrate</td>
<td>12 to 384 kb/s (AACHE and AACHE V2 32 to 64 kb/s)</td>
</tr>
</tbody>
</table>

## Network Device

<table>
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<tr>
<th>Specification</th>
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<tbody>
<tr>
<td>Interface Options</td>
<td>Ethernet (100Base-T, 10-Base-T), Auto/full/half duplex, Auto/10/100, Configurable MTU Size</td>
</tr>
<tr>
<td>Protocols</td>
<td>TCP/IP, UDP, ICMP, DHCP, DNS, HTTP, HTTPS, NTP, RTSP/RTCP, TSRTSP, RTMP, RTMPS, SRT, IGMP, SNMP, SYNS, SSL, TLS, 802.1x (EAP)</td>
</tr>
<tr>
<td>Control Protocol</td>
<td>SYNS, ONVIF (Profile S, T compliant)</td>
</tr>
<tr>
<td>Video Stream Delivery</td>
<td>RTSP/RTCP (Unicast: UDP/TCPP, Multicast UDP), TSRTSP, RTMP, RTMPS, SRT</td>
</tr>
<tr>
<td>Network Discovery</td>
<td>SYNS, WS-Discovery (ONVIF)</td>
</tr>
<tr>
<td>Device Security</td>
<td>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</td>
</tr>
<tr>
<td>Supported Internet Browsers</td>
<td>Chrome/Firefox/IE/Edge (No Active-X browser components required)</td>
</tr>
<tr>
<td>System Maintenance</td>
<td>Field upgradeable firmware, diagnostic logs</td>
</tr>
</tbody>
</table>

**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.