

# COEX™ C3000-1F Ex d Camera Station

The COEX™ C3000 camera series has a unique compact and lightweight design specifically developed for hazardous area applications. The camera stations are designed for toughness and durability to operate in the most adverse environments – from offshore oil and natural gas rigs to FPSO / FSO's and LPG / LNG tanker vessels.



COEX™ C3000 Ex d analog camera stations are manufactured from high grade, corrosion resistant, electro-polished 316 stainless steel – incorporating state of the art cameras, control and transmission modules.

The advanced mechanical design provides a reliable solution for both security and process monitoring in any environmental condition.

Integrated with the latest camera technology, the C3000 camera stations are compatible with a broad range of control systems.

## Features

- ATEX Certification
- CSAus Certification
- IECEx Certification
- CSA Canadian Certification
- EAC-TR CU Certification
- DNV Type Approval
- IP66 & IP68 Rated – Completely Protected Against Dust & Water Ingress, for the Most Demanding Environment
- Type 6 Enclosure
- C-Tick Compliance
- Electro-polished 316 Stainless Steel, for Optimum Corrosion Resistance
- Low Voltage Operation
- Onscreen Menu Display Allowing Easy Configuration and Diagnostics

- Multi-protocol Telemetry for Extensive System Compatibility
- Thermostatically Controlled Window Demister
- Removable Camera Chassis for Ease of Servicing

## Options

- Thermal Imaging
- Integral Wiper [W]
- COEX™ 'FEWS' Ex Pressurised Wash System
- Fiber available with associated junction box
- Integrated IP

# Specifications

CERTIFICATIONS / RATINGS		[OPTIONS]
ATEX / IECEx	ATEX II 2GD, Ex db IIB/IIC Gb; Ex tb IIIC Db; T4 / T5 / T6	
US Class / Division	Class I, Div 1, Groups A, B, C, D; Class II, Div I, Groups E, F, G; T4 / T5 / T6	
US Class / Zone	Class I, Zone 1, AEx d IIC Gb; Zone 21, AEx tb IIIC Db; T4 / T5 / T6	
CAN	Ex d IIC Gb; Ex tb IIIC Db; Class II, Div 1, Groups E, F, G, Class III, Div 1; T4 / T5 / T6	
EMC	CFR 47, 15.109 and 15.107, EN55022, EN55024, EN61000-6-4, EN 61000-6-2	
CE	CE Compliant	
Ingress Protection	IP66 & IP68 (30m Submersion for 4 hrs) to IEC 60529, Type 6 Enclosure	
DNV	A-13470	
EAC	RU C-GB.ГБ06.В00398	
C-Tick	On Request	

ENVIRONMENTAL	
Rated Temperature	-55°C to +60°C (T5) [+70°C (T4)] -67°F to 140°F (T5) [158°F (T4)]

MECHANICAL	
Material	Electro-polished 316 stainless steel
Window	Toughened glass, thermostatically operated demister [Wiper*3]
Mounting	1 x Ø 10.5 mm / 0.41"
Dimensions (W x D x H)	179 x 235 x 310 mm / 7.05" x 9.25" x 12.20"
Weight*1	8 kg / 17.5 lb

ELECTRICAL	
Power Requirements	24Vac 50 / 60Hz or 24Vdc (±10%)
Power Consumption	20VA maximum

TELEMETRY	
Interface	RS485 serial asynchronous data
Protocols*2	Synectics™, Pelco® and other industry standard protocols available
Functions*1	Zoom, focus, wipe, wash, Aux1, [Aux2] and Aux In
Day / Night Camera Functions*1	Optical zoom, digital zoom, BLC, manual / automatic focus, Color / mono (IRC Filter), manual / automatic iris, frame integration, white balance
OSD	Password protected on-screen menu system for camera station configuration and diagnostics

CAMERA / LENS	C3000-1F18 [W]	C3000-1F36 [W]
Video Output	1.0 Vpk-pk CVBS into 75Ω; Color PAL 50Hz [NTSC 60Hz]	
Image Sensor	¼" EXview HAD CCD	
Resolution	>550TVL	
S/N Ratio	>50dB	
Zoom Range	18x zoom (up to 216x with digital zoom)	36x zoom (up to 432x with digital zoom)
Minimum Illumination	0.7 lux (0.07 lux with ½ sec integration) 0.01 lux mono (with ½ sec integration)	1.4 lux (0.10 lux with ½ sec integration) 0.01 lux mono (with ½ sec integration)
Focal Length	4.1 to 73.8 mm	3.4 to 122.4 mm
Angle of View (H)	48° to 2.8°	57.8° to 1.7°
Aperture	F1.4 to 3.0	F1.6 to 4.5

FIBER OPTICS	
Fibers Required	Single Fiber
Optical Interface	Analog Video and Data
Standard Optical Link Budget	>17dB: >3 km on multimode fiber @ 1310nm (fiber bandwidth limited) >14dB: >30 km on singlemode fiber @ 1310nm (fiber loss limited)
Transmitter Optical Power	-10 to -5dBm into multimode fiber -13 to -6dBm into singlemode fiber
Transmitter Sensitivity	<-32dBm
Transmitter Saturation	>-3dBm
Receiver Optical Power	-9 to -4dBm into multimode fiber -10 to -5dBm into singlemode fiber
Receiver Sensitivity	<-27dBm
Receiver Saturation	>-3dBm

NOTE: \*1 Dependant on equipment fitted. \*2 Refer to Synectics for availability and compatibility with other control systems. \*3 Wipers are consumable items that need regular replacement. Please refer to the manual for recommendations and maintenance.

## Synectics

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Specifications subject to change. E & OE.

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MANUFACTURER OF



CAMERA STATIONS

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