

XF40 dual imager analogue series - UL range

Fixed camera station,
hazardous location



Overview

The Oxalis XF40 thermal imager is an explosion protected fixed camera housing for use in hazardous areas in onshore, offshore, marine and heavy industrial environments. The dual imaging configuration of optical and thermal is used for continued vision in ultra-low light conditions, such as fog or smoke.

The camera housings are designed specifically for the Americas markets or where UL standards on Class and Division have been specified. The camera utilises NPT entries as standard to maximise compatibility with existing fixed conduit installations.

Our camera stations are designed and manufactured for longevity in harsh environments, require minimal maintenance and are fully certified to UL standards as required by OSHA in both safe and hazardous areas.

See separate datasheet for ATEX/IECEX & other zone certification ranges.

Features

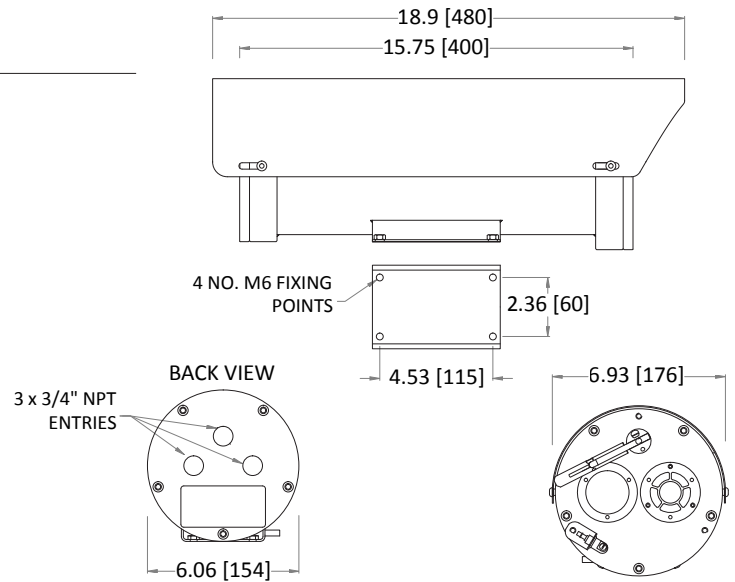
- Class 1 Division 1 and Zone 1 certified
- Electro-polished 316L stainless steel on all welded assemblies
- Camera station window in toughened glass
- Pole or wall mounting options (see separate datasheets)
- NPT entries as standard
- 4 different size lens options
- 4 resolution/frequency rating options
- Various camera module options
- Options also available for IP, analogue, hybrid, IP over Coax and direct fibre out* - see specific data sheet
- Supply voltage options (24 VAC)
- Certified temperature from -58°F to +158°F* (ranging from T4 - T6)
- IP66/67

*Model dependent

Certifications

UL C1/D1	Class I, Division 1, Groups B, C, D, T4A(T5 & T6 On Request) Class II, Division 1, Groups E, F, G IP67 Class 1 Zone 1 A Ex d IIB + Hydrogen T4 (T5 On Request)
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General arrangement drawing (dimensions in inches and mm)



Specifications

Certification part number	Housing options OXALIS-UL2410-DI-02
Features	
Sun shield	Standard stainless steel 316L mirror finish
Integral wiper	Optional (for day-night camera window only) (silicone wiper blades that are resistant and do not perish after long exposure to ozone, UV, ice, snow, heat or cold)
Integral demister	Standard
Telemetry receiver	Integral - Pelco D standard protocols (others to specification)
Analogue direct fibre out	Optional singlemode 9/125µm or multimode 50/125µm video and data fibre optic transmission, mounted inside the camera station
Electrical	
Supply voltage options	24 VAC
Power consumption	37W maximum (65W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	3 x 3/4" NPT located in rear flange
Mechanical	
Body material	Electro-polished 316L stainless steel on all welded assemblies
Fixings material	A4 stainless steel
Camera station window	Toughened glass / internal AR and external carbon coated germanium with protective grill
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -58°F to +158°F (model dependent)
Weight (lb)	Up to 35lb depending on configuration
Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)
Type approval	DNV 2.4 2006 ABCD (copper transmission only)
Camera options	
1/4" CCD 36x zoom camera	
Image sensor	1/4" EXview HAD CCD (Progressive Scan)
Resolution	High Resolution Mode On: 530 TV lines (default)
Lens	36x zoom 3.4-122.4 mm F1.6 to F4.5, Horizontal Angle of View 57.8° - 1.7°, 12X digital zoom, Auto Focus, Auto Iris
Min. illumination	1/60 s, 1/50 s mode: 1.4 Lux, 1/4 s, 1/3 s mode: 0.1 Lux, 1/4 s, 1/3 s mode & ICR On: 0.01 Lux
S/N ratio	>50dB
Features	ATW, Day & Night Auto/Colour / BW (IR-Cut Filter Removable), Camera Title ON/OFF
Thermal core module options	
T320 7.5-8.3Hz	Uncooled VOx microbolometer thermal imaging camera, including TCI Interface PCB for functionality over standard RS485 protocol Commands 324 x 256 resolution, 25µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
T640 7.5-8.3Hz	Uncooled VOx microbolometer thermal imaging camera, including TCI Interface PCB for functionality over standard RS485 protocol Commands 640 x 512 resolution (PAL), 17µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
T320 25-30Hz	Uncooled VOx microbolometer thermal imaging camera, including TCI Interface PCB for functionality over standard RS485 protocol Commands 324 x 256 resolution, 25µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing
T640 25-30Hz	Uncooled VOx microbolometer thermal imaging camera, including TCI Interface PCB for functionality over standard RS485 protocol Commands 640 x 512 resolution (PAL), 17µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing
Thermal core lens options	
19mm lens	FoV 24° x 18° (324 x 256) / FoV 32° x 26° (640 x 512). Detection of object 4m x 1.5m: 1280m (324 x 256) / 1550m (640 x 512)
25mm lens	FoV 18° x 14° (324 x 256) / FoV 25° x 20° (640 x 512). Detection of object 4m x 1.5m: 1650m (324 x 256) / 2200m (640 x 512)
35mm lens	FoV 13° x 10° (324 x 256) / FoV 18° x 14° (640 x 512). Detection of object 4m x 1.5m: 2250m (324 x 256) / 3000m (640 x 512)
50mm lens	FoV 9.1° x 6.9° (324 x 256) / FoV 12.4° x 9.9° (640 x 512). Detection of object 4m x 1.5m: 3100m (324 x 256) / 3900m (640 x 512)

Ordering requirements

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box

XF40														
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Housing type	Code
Dual imaging housing	D

Wiper options	Code
Integral wiper with switched 24VAC for external washer pump	E
No wiper	N

Video type	Code
Analogue video	A

Day/night module	Code
1/4" CCD 36x zoom camera	4

Thermal core module	Code
T320 7.5-8.3Hz	1
T640 7.5-8.3Hz	2
T320 25-30Hz	3
T640 25-30Hz	4

Thermal core lens	Code
19mm lens	1
25mm lens	2
35mm lens	3
50mm lens	4

Video system	Code
PAL	P
NTSC	N

Supply voltage	Code
24 VAC \pm 10% 50/60 Hz	1
Special - price on application	S

Camera rotation	Code
Not applicable	N

Protocol requirements	Code
Pelco D protocol, baud rate 2400bps	D
Special - price on application	S

Certification	Code
UL Class I Div I	L

Temperature type	Code
T4A -4°F to +158°F	E
T4A -58°F to +158°F	F
T6 -4°F to +122°F*	G
T6 -58°F to +122°F*	H

*Subject to restrictions

Transmission type	Code
Standard electrical	0
Simplex singlemode 9/125 μ m video/data*	1
Simplex multimode 50/125 μ m video/data*	2
Customer specific transmission device*	C

*Subject to configuration restrictions