

# XF40 dual imager analogue series

Explosion proof, fixed camera station



## Overview

The Oxalis XF40 is an explosion protected fixed camera housing for use in hazardous areas in onshore, offshore, marine and heavy industrial environments.

The camera housings are designed for longevity in harsh environments with minimal maintenance.

This datasheet cover the dual imaging configuration for continued vision in ultra-low light or harsh environmental conditions such as fog or smoke.

## Features

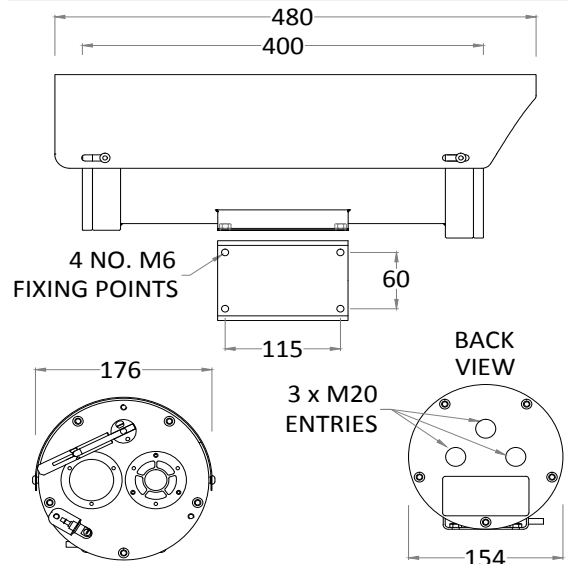
- ATEX, IECEx, Class 1 Division 1 and Zone 1 certified
- Electro-polished 316L stainless steel on all welded assemblies
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options 24 VAC
- Operating temperature from -60°C to +70°C\*
- IP66/67 (IP68)



## Certifications

<b>ATEX</b>	II 2 G Ex db (op pr) IICT4 Gb -60°C to +70°C II 2 D Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: ITS16ATEX101021X	<b>cLC CSA</b>	Ex d IICT4 (T5 On Request) LC1311396 -60°C ≤Ta ≤ +60°C. CAN CSA-C22.2 No.60079-0:2011 & 60079-1-2012 Certificate: 11396-1S-CSA
<b>IECEX</b>	Ex db (op pr) IICT4 Gb -60°C to +70°C Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: IECEX ITS 15.0068X	<b>TR CU, EAC</b>	1 Ex db (op pr) IICT4 Gb -60°C to +70°C Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: TCRUCGB.IT504.B00587
<b>INMETRO</b>	Ex db (op pr) IICT4 Gb -60°C to +70°C Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: ULBR 17.0063X	<b>CCOE</b>	Ex db (op pr) IICT4 Gb -60°C to +70°C Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: P400546/1
<b>LCus CI/ZI</b>	Class 1 Zone 1 A Ex d IICT4 (T5 On Request) LC13A11396 Gb -60°C ≤Ta ≤ +60°C. UL 60079-0:2009 & 60079-1:2010 Certificate: 11396-1S-UL	<b>CNEX</b>	Ex db (op pr) IICT4 Gb -60°C to +70°C Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: 17.1235X
<b>cLCus CI/DI</b>	Class I, Division 1, Groups B, C, D, -60°C ≤Ta ≤ 60°C T4 Class II, Division 1, Groups E, F, G IP67 CSA-C22.2 No:30-M1986 No:25-1966(R2009) CSA-C22.2 No:60065-03(R2012) & UL1203,UL60065(ED.7) Certificate: 11671-1S (Gas) / 11677-1S (Dust)	<b>CERTEX</b>	Ex db (op pr) IICT4 Gb -60°C to +70°C Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: S-XLP/170244X

## General arrangement drawing (all dimensions in mm)



## Specifications

<b>Certification part number</b>	Housing options 2410-DI-02
<b>Features</b>	
<b>Sun shield</b>	Standard stainless steel 316L mirror finish
<b>Integral wiper</b>	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)
<b>Integral demister</b>	Standard
<b>Telemetry receiver</b>	Integral - Pelco D, P standard protocols (others to specification)
<b>Analogue direct fibre out</b>	Optional singlemode 9/125µm or multimode 50/125µm video and data fibre optic transmission, mounted inside the camera station
<b>Ingress protection rating</b>	IP66/67, IP68 (1.5m for 24 hours)
<b>Type approval</b>	DNVGL-CG-0339, 2016 (copper transmission only)
<b>Electrical</b>	
<b>Supply voltage options</b>	24 VAC
<b>Power consumption</b>	37W maximum (65W with low temperature operation)
<b>Electrical connections</b>	Terminal block for power, data and video specific to camera configuration
<b>Cable entry</b>	Three M20 entries located in housing rear flange
<b>Mechanical</b>	
<b>Body material</b>	Electro-polished 316L stainless steel on all welded assemblies
<b>Fixings material</b>	A4 stainless steel
<b>Camera station window</b>	Toughened glass / internal AR and external carbon coated germanium with protective grill
<b>Mounting options</b>	Pole or wall (see separate datasheets)
<b>Operating temperature</b>	From -60°C to +70°C (model dependent)
<b>Weight (Kg)</b>	Up to 16Kg depending on configuration
<b>Camera options</b>	
<b>¼" CCD 36x zoom camera</b>	
<b>Image sensor</b>	1/4" EXview HAD CCD (Progressive Scan)
<b>Resolution</b>	High Resolution Mode On: 530 TV lines (default)
<b>Lens</b>	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
<b>Min. illumination</b>	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
<b>S/N ratio</b>	>50dB
<b>Features</b>	ATW, Day & Night Auto/Colour / BW (IR-Cut Filter Removable), Camera Title ON/OFF
<b>Thermal core module options</b>	
<b>T336 7.5-8.3Hz</b>	Uncooled VOx microbolometer thermal imaging camera, including TCI Interface PCB for functionality over standard RS485 protocol Commands 336 x 256 resolution, 17µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
<b>T640 7.5-8.3Hz</b>	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
<b>T336 25-30Hz</b>	Uncooled VOx microbolometer thermal imaging camera, including TCI Interface PCB for functionality over standard RS485 protocol Commands 336 x 256 resolution, 17µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing
<b>T640 25-30Hz</b>	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
<b>Thermal core lens options</b>	
<b>19mm lens</b>	FoV 17° x 13° (336 x 256) / FoV 32° x 26° (640 x 512) Detection of object 4m x 1.5m: Typical 1550m
<b>25mm lens</b>	FoV 13° x 10° (336 x 256) / FoV 25° x 20° (640 x 512) Detection of object 4m x 1.5m: Typical 2200m
<b>35mm lens</b>	FoV 9.3° x 7.1° (336 x 256) / FoV 18° x 14° (640 x 512) Detection of object 4m x 1.5m: Typical 3000m
<b>50mm lens</b>	FoV 6.5° x 5° (336 x 256) / FoV 12.4° x 9.9° (640 x 512) Detection of object 4m x 1.5m: Typical 3900m

# 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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<b>Housing type</b>	<b>Code</b>
Dual imaging housing	D

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

<b>Video type</b>	<b>Code</b>
Analogue video	A

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

<b>Thermal core module</b>	<b>Code</b>
T336 7.5-8.3Hz	8
T640 7.5-8.3Hz	2
T336 25-30Hz	9
T640 25-30Hz	4

<b>Thermal core lens</b>	<b>Code</b>
19mm lens	1
25mm lens	2
35mm lens	3
50mm lens	4

<b>Video system</b>	<b>Code</b>
PAL	P
NTSC	N

<b>Supply voltage</b>	<b>Code</b>
24 VAC ±10% 50/60 Hz	1
Special - price on application	S

<b>Camera rotation</b>	<b>Code</b>
Not applicable	N

<b>Transmission type</b>	<b>Code</b>
Standard electrical	0
Simplex singlemode 9/125µm video/data	1
Simplex multimode 50/125µm video/data	2
Customer specific transmission device	C

<b>Temperature type</b>	<b>Code</b>
T4, -20°C to +70°C*	A
T4, -40°C to +70°C*	B
T4, -20°C to +60°C	1
T4, -40°C to +60°C	2
T4, -60°C to +40°C	3
T5, -20°C to +65°C*	C
T5, -40°C to +65°C*	D
T5, -20°C to +60°C*	4
T5, -40°C to +60°C*	5
T5, -60°C to +40°C*	6
T6, -20°C to +40°C*	7
T6, -40°C to +40°C*	8
T6, -60°C to +40°C*	9

\*Subject to configuration restrictions

<b>Certification</b>	<b>Code</b>
ATEX	A
IECEX	I
INMETRO	M
LCus C1, Z1	U
cLCus C1, D1	Z
cLC CSA	C
TR CU, EAC	R
CCOE	D
CNEX	X
CERTEX	T

<b>Protocol requirements</b>	<b>Code</b>
Pelco D protocol, baud rate 2400bps	D