

# XP40 thermal image IP hybrid series - UL range

PTZ camera station,  
hazardous location



## Overview

The Oxalis XP40 thermal imager is an explosion protected PTZ camera station for use in hazardous areas in onshore, offshore, marine and heavy industrial environments where thermal imaging is required for specific process or security applications.

The camera housings are designed specifically for the Americas markets or where UL standards on Class and Division have been specified.

The base unit carries dual NPT cable entries with easy access for cable termination during installation as standard, maximising compatibility and ease of use 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

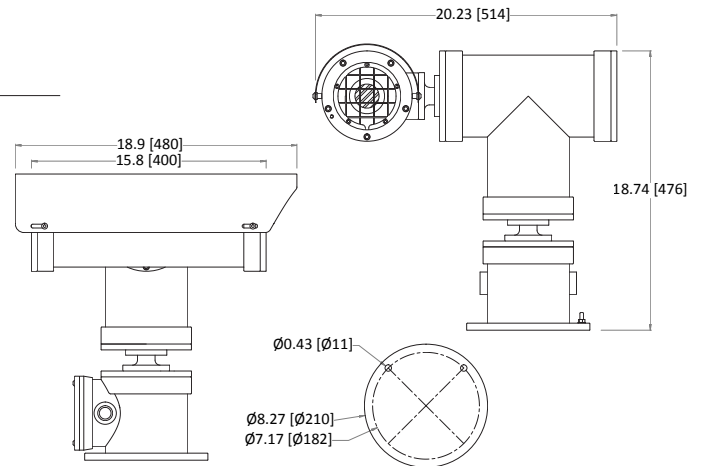
- Class 1 Division 1 and Zone 1 certified
- Electro-polished 316L stainless steel on all welded assemblies
- Camera station window in toughened glass
- Pole or wall mounting options (see separate datasheets)
- NPT entries as standard
- 5 different size lens options
- 4 resolution/frequency rating options
- 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, 110 or 230 VAC, 50/60Hz)
- Certified temperature from -58°F to +158°F\* (ranging from T4 - T6)
- IP66/67

\*Model dependent

## Certifications

UL CI/DI	Class I, Division 1, Groups B, C, D, T4+ -50°C to +70°C (-58°F to +158°F)
	Class II, Division 1, Groups E, F, G IP67
	Class 1 Zone 1 A Ex d IIB + Hydrogen T4 (T5 On Request)
	On Request: T5 -50°C to +70°C (-58°F to +158°F), T6 -50°C to +50°C (-58°F to +122°F)
	UL Listing: E477542

## General arrangement drawing (dimensions in inches and mm)



## Specifications

<b>Certification part number</b>	P&T OXALIS-UL2420-01, Housing options OXALIS-UL1410-10-TI-50, 1410-10-TI
<b>Features</b>	
<b>Sun shield</b>	Standard stainless steel 316L mirror finish
<b>Integral demister</b>	Standard
<b>Pan speed (maximum)</b>	45° per second
<b>Tilt speed (maximum)</b>	24° per second
<b>Pre-set positional accuracy</b>	64 presets: positional accuracy $\pm 0.1^\circ$
<b>Telemetry receiver</b>	Integral - Pelco D protocol (others to specification)
<b>Rotation</b>	Continuous pan or 350° rotation (+/- 175° from straight ahead)
<b>Integral IP encoder</b>	Includes integral video encoder, H.264 / M-JPEG/MPEG-4, low latency, triple streaming, D1, 2CIF, CIF and VGA resolution, 25fps (30fps - NTSC) for use with analogue camera modules Optional nonstandard encoder, subject to acceptance, conformity to regulation and testing
<b>IP over coax</b>	Optional integrated IP ethernet-over-coax converter (must be used with compatible Rx equipment)
<b>Direct fibre out</b>	Optional ,simplex singlemode 9/125 $\mu$ m or multimode 50/125 $\mu$ m, 10/100Mb ethernet, IEEE 802.3
<b>Electrical</b>	
<b>Supply voltage options</b>	24 VAC, 110 or 230 VAC, 50/60Hz
<b>Power consumption</b>	85W maximum (143W with low temperature operation)
<b>Electrical connections</b>	Terminal block for power, data and video specific to camera configuration
<b>Cable entry</b>	2 x $\frac{3}{4}$ " NPT located in base
<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>	Internal AR and external carbon coated germanium (50 or 102mm $\varnothing$ ) with protective grill
<b>Mounting options</b>	Pole or wall (see separate datasheets)
<b>Operating temperature</b>	From -58°F to +158°F (model dependent)
<b>Weight (lb)</b>	Up to 117lb depending on configuration
<b>Ingress protection rating</b>	IP66/67
<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, 17 $\mu$ 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), 17 $\mu$ 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, 17 $\mu$ 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), 17 $\mu$ 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
<b>100mm lens</b>	FoV 3.3° x 2.5° (336 x 256) / FoV 6.2° x 5.0° (640 x 512) Detection of object 4m x 1.5m: Typical 6000m. $\varnothing 102$ Germanium housings only

# 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

XP40

Housing type	Code
Thermal imaging housing with 50mm germanium window	T
Thermal imaging housing with 102mm germanium window no camera	H

Wiper options	Code
No wiper	N

Video type	Code
Integral IP video encoder	H
Hybrid analogue IP system with nonstandard IP encoder	S

Day/night module	Code
No D/N camera fitted	N

Thermal core module	Code
T336 7.5-8.3Hz	8
T640 7.5-8.3Hz	2
T336 25-30Hz	9
T640 25-30Hz	4
Customer specific thermal camera	C

Thermal core lens	Code
19mm lens	1
25mm lens	2
35mm lens	3
50mm lens	4
100mm lens	5
Customer specific thermal imaging lens	C

Video system	Code
PAL	P
NTSC	N

Supply voltage	Code
24 VAC ±10% 50/60 Hz	1
110 VAC ±10% 50/60 Hz	2
230 VAC ±10% 50/60 Hz	3
Special - price on application	S

Camera rotation	Code
Continuous rotation	1
Pan rotation restricted to +/- 175°	2

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 9/125µm ethernet	3
Simplex multimode 50/125µm ethernet	4
IP over coax	5
Customer specific transmission device	C