

# SP40 TI IP hybrid series

Thermal image, PTZ  
camera station



## Overview

The Oxalis SP40 is a PTZ camera station, for use in designated safe areas in onshore, offshore, marine and heavy industrial environments. The camera stations are designed for longevity in harsh environments with minimal maintenance. This datasheet covers the thermal imaging configurations.

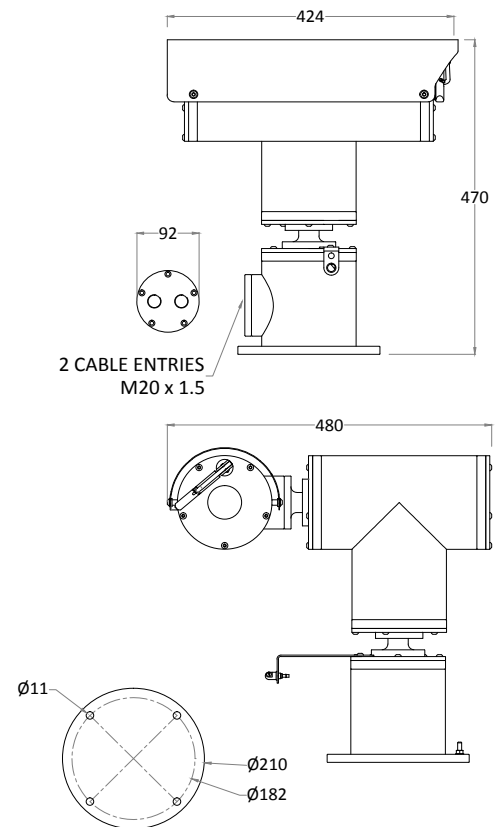
## Features

- Electro-polished 316L stainless steel on all welded assemblies
  - Pole or wall mounting options (see separate datasheets)
  - Supply voltage options (24 VAC, 110 or 230 VAC, 50/60Hz)
  - Operating temperature -60°C to +60°C\*
  - IP66/67
- \*Model dependent

## Specification

<b>Features</b>	
<b>Sun shield</b>	Standard stainless steel 316L mirror finish
<b>Integral wiper</b>	Optional (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>Washer systems</b>	Compatible with Oxalis SW Washer tanks (see separate datasheets)
<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
<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 direct fibre out options</b>	Optional media converter, simplex singlemode 9/125 $\mu$ m or multimode 50/125 $\mu$ m, 10/100Mb ethernet, IEEE 802.3.
<b>IP over coax</b>	Optional integrated IP ethernet-over-coax converter (must be used with compatible Rx equipment)
<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>	Two M20 entries 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 90mm $\varnothing$ )
<b>Mounting options</b>	Pole or wall (see separate datasheets)
<b>Operating temperature</b>	From -60°C to +60°C (model dependent)
<b>Weight</b>	Up to 34Kg 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. $\varnothing 90$ Germanium housings only

## General arrangement drawing (all dimensions in mm)



# 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

SP40														
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Housing type	Code
Thermal imaging housing with 50mm germanium window	T
Thermal imaging housing with 90mm germanium window no camera	H

Wiper options	Code
Integral wiper with switched 24VAC for external washer pump	E
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 restriction to +/- 175°	2

Protocol requirements	Code
Pelco D protocol, baud rate 2400bps	D

Certification	Code
No Ex certification required	N

Temperature type	Code
-20°C to +60°C	1
-40°C to +60°C	2
-60°C to +40°C	3

Transmission type	Code
Standard electrical	0
Simplex singlemode 9/125µm ethernet	3
Simplex multimode 50/125µm ethernet	4
IP over coax	5
Customer specific fibre transmission device	C