

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.

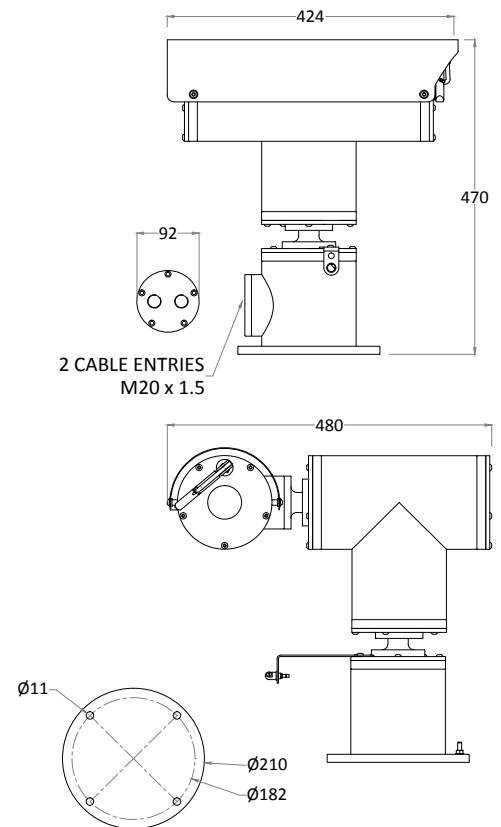
Features

- 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

Features	
Sun shield	Standard stainless steel 316L mirror finish
Integral wiper	Optional (silicone wiper blades that are resistant and do not perish after long exposure to ozone, UV, ice, snow, heat or cold)
Integral demister	Standard
Washer systems	Compatible with Oxalis SW Washer tanks (see separate datasheets)
Pan speed (maximum)	45° per second
Tilt speed (maximum)	24° per second
Pre-set positional accuracy	64 presets: positional accuracy $\pm 0.1^\circ$
Telemetry receiver	Integral - pelco D
Rotation	Continuous pan or 350° rotation (+/- 175° from straight ahead)
Integral IP encoder	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.
IP direct fibre out options	Optional media converter, simplex singlemode 9/125 μ m or multimode 50/125 μ m, 10/100Mb ethernet, IEEE 802.3.
IP over coax	Optional integrated IP ethernet-over-coax converter (must be used with compatible Rx equipment)
Electrical	
Supply voltage options	24 VAC, 110 or 230 VAC, 50/60Hz
Power consumption	85W maximum (143W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Two M20 entries located in base
Mechanical	
Body material	Electro-polished 316L stainless steel on all welded assemblies
Fixings material	A4 Stainless Steel
Camera station window	Internal AR and external carbon coated germanium (50 or 90mm \varnothing)
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60°C to +60°C (model dependent)
Weight	Up to 34Kg depending on configuration
Ingress protection rating	IP66/67
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, 25 μ 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), 17 μ 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, 25 μ 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), 17 μ 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)
100mm lens	FoV 4.6° x 3.4° (324 x 256) / FoV 6.2° x 5.0° (640 x 512). Detection of object 4m x 1.5m: 5300m (324 x 256) / 6000m (640 x 512). $\varnothing 102$ 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
T320 7.5-8.3Hz	1
T640 7.5-8.3Hz	2
T320 25-30Hz	3
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