



#### Starvis™ Sensor

The Orion DX 2 is a full HD IP speed dome camera featuring Sony's Starvis™ back-illuminated pixel technology CMOS image sensor producing a colour sensitivity down from 0.20 lux in colour to 0.02Lux offering a massive improvement in light sensitivity. The dome also includes an integrated motorised 30x optical zoom with autofocus.

## **Ultra Wide Dynamic Range**

The Orion DX 2 benefits from 120dB Ultra Wide Dynamic Range performance making this dome ideal for surveillance in areas with strong variations in light, for instance close to large windows and entrances or where the sunlight creates both very bright zones and dark shadows.

# **Designed For Constant Use**

The camera is designed for round-the-clock pan/tilt/zoom operation in outdoor environments, and can be automatically directed to 256 pre-set positions, With endless 360° pan, they enable surveillance of an extremely wide area.

# **Low Light Speed Dome**

**Orion DX 2 Low Light Edition** 

- Starvis™ CMOS Sensor 0.02 Lux Colour
- 60fps @ 1080p 30fps @ 1080p
- Wide Dynamic Range 120dB
- EIS Ernitec Image Stabilization
- 30x P-Iris Zoom Lens
- De-Fog
- Quad Stream
- PoE + (IEEE 802.3at)
- OnVif
- 3 year Warranty

#### **Hi-POE**

Orion DX 2 offers easy and reliable installation with High Power over Ethernet (PoE+ ultra) which simplifies installation since only one cable is needed to carry power as well as video and PTZ controls. The camera mount is designed with easy bayonet mounting enabling connection to the wide range of Ernitec mounting accessories, including ceiling, wall, pole or corner installations.

## **Ernitec Image Stabilization**

The new Orion DX2 version is equipped with EIS (Ernitec Image Stabilization) which enables the speed dome to capture objects at distance with very high precision without the image shake you get from other dome cameras.

#### **Environment Protection**

Orion DX 2 domes are IP66 protection against dust, rain and snow and can operate in extreme cold temperatures. The cameras' extreme cold control function ensures safe start-up from -40 °C (-40 °F) with a maximum operating temperature of 60 °C (-49 °F  $^{\sim}$  140 °F)

#### **Ernitec Orion DX Series**

#### 30x Optical Zoom

Fitted with 30x optical and 12x digital zoom including autofocus lens. Using the tour guard function enables the camera to patrol the area. Whereby the camera can automatically go to different preset positions to check on different areas of a scene. When the camera is fully zoomed out you get a fantastic wide angle overview image from the dome when running full HD.





#### **UWDR** (Ultra wide dynamic range)

The domes come fitted as standard with ultras wide dynamic range enabling the dome to be fitted in extreme lighting conditions. With excellent colour reproduction.

#### Fast, Reliable and easy installation

The cameras support high Power over Ethernet (PoE) IEEE 802.3at, enabling easy installation. The cameras simply connect to either a PoE-enabled switch or via a PoE mid-span to a switch using one network cable to carrying power, video and PTZ controls.



# SETTING I/O 1 2 3 4 5 6 7 8 9 101112 AC24 AC24V AC24V

#### **Auto Tracking**

The cameras support auto tracking, features include; Built-in Video Intelligence Program, Adjustable Maximum Tilt and Pan Angle Setting, Adjustable Detection Area Percentage / Sensitivity, Home Function Support, Guard Timer Setting.

Function Activation by License Key. EDP No: 0070-10015

## **Auto Tracking License**

One license per PTZ unit

Part number 0070-10015





## **Gooseneck Mount**

Dimensions: 384×104×136.5 mm

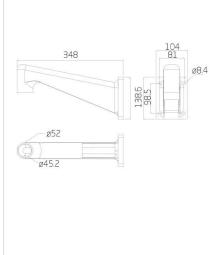
Weight: 1.75 kg

Supplied with rubber washer and 4x

M8x12 screw.

Part number 0070-10101



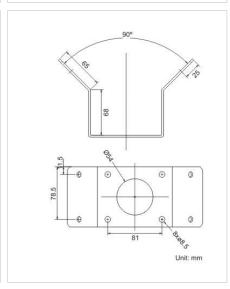


#### **Corner Plate**

For mounting with Mini Gooseneck Dimensions: 270×166×95 mm Supplied with washer-8 x4, spring washer-8 x4, M8x16 screw x4 and M8 nut x4.

Part number 0017-05203





## Mini Gooseneck Mount

Dimensions: 184×104×115.2 mm

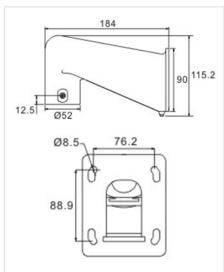
Weight: 0.6 kg

Supplied with rubber washer and 4x

M8x12 screw.

Part number 0070-10007



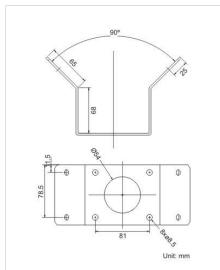


## **Mini Corner Plate**

For mounting with Mini Gooseneck Dimensions: 270×166×95 mm Supplied with washer-8 x4, spring washer-8 x4, M8x16 screw x4 and M8 nut x4.

Part number 0070-10004





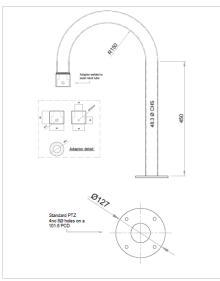
#### **Swan Neck Pole Mount**

Dimensions: 450 mm to Bend

Diameter: 48.3mm Weight: 2.7 kg

Part number 0017-05220



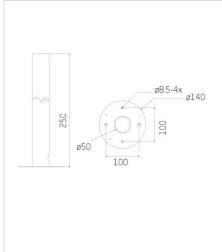


#### **Straight Tube 25CM**

ORION 25CM STRAIGHT TUBE Dimensions Ø 50 x 250 x Ø 140 mm

Part number 0070-10025





### Straight Tube 50CM and 100CM

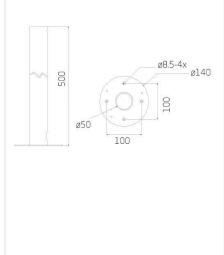
**ORION 50CM STRAIGHT TUBE** 

Part number 0017-05208

Dimensions Ø 50 x 500 x Ø 140 mm

Part number 0070-10100 Dimensions Ø 50 x 1000 x Ø 140 mm





## **New Dome Cover Options**

Vandal Proof water repelling hemisphere Part number 0070-10021

Smoked hemisphere
Part number 0070-10014





## **Pole Mount Thin**

Dimensions: 232×136×60 mm Diameter: 112~130 mm

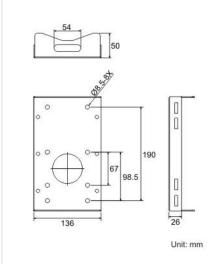
Weight: 0.7 kg

Supplied with stainless steel straps x4, M8x16 screw x4, washer x4 and

spring washer-8 x4.

Thin: Part number 0070-10002





## **Pole Mounting Wide**

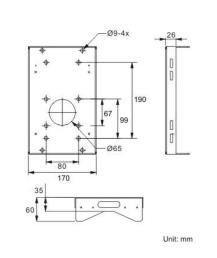
Dimensions: 270×170×60 mm Diameter: 112~140 mm

Weight: 1 kg

Supplied with M8x16 screw x4, washer x4, stainless steel straps x4

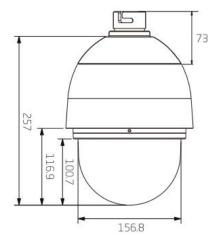
and spring washer-8 x4.
Part number 0070-10003





## **Orion Housing**

Orion housing drawing with dimensions.



#### **Orion DX INDOOR KIT**

Indoor Conversion Kit Converts from Outdoor to Indoor

Weight: 0.5 kg

Part number 0070-10103



Before



## In-Ceiling (T-Bar) Mount

For In-Ceiling Installation.

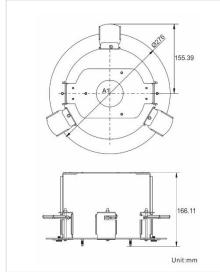
Height: 58 mm

Diameter: Ø103 / Ø189 mm

Weight: 0.8 kg

Part number 0070-10102





## **Electra POE+**

PoE + Injector for low temperatures below -20 °C

Part number ELECTRA-P-60W





# **Technical Specification Orion DX 822OPH**

Camera	
Camera type	Outdoor PTZ day / night
**	(ICR Type)
Effective Pixels	1920 (H) x 1080 (V)
Image Sensor	1/2.8" Sony Starvis™ Sensor
Electronic Shutter Speed	1~1/10.000 sec.
Min. Illumination	0.02 Lux (Colour), 0.005 Lux
	(B/W), F1.4
Day/night switching	Mechanical IR-cut
Video	
Video Compression	H.264 Main Profile and MJPEG
Video Streaming	Multiple streams, H.264 +
	MJPEG / H.264 + H.264
Frame Rate	30 fps @ 1080P
	60 fps @ 1080P
Resolution	Full HD1080p/SXGA/HD720p
	XGA/SVGA/ D1/ VGA/ CIF/QVGA
Brightness	On / Off
AGC Control	Auto / Manual
White Balance	Manual / ATW/ Auto
Digital Zoom	Yes
UWDR	Up to 120dB
2D / 3D Noise	On/Off
Image Stabilization (ESI)	On/Off
De-Fog	On/Off
Privacy Zone	16
Motion detection	Motion Detection Window
2	x 4 sets
Operation	
Pan Travel	360° endless
Pan Travel Tilt Travel	360° endless -10 ° ~ 190°
Pan Travel Tilt Travel Manual Speed	360° endless -10° ~ 190° 0.5° ~ 90°/s
Pan Travel Tilt Travel Manual Speed Presets	360° endless -10° ~ 190° 0.5° ~ 90°/s 256
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225°
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt Resume after Power Loss	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio)
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt Resume after Power Loss	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan,
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt Resume after Power Loss Home Function	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function Zone Title	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network Network Interface	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16 Ethernet (RJ45) 1 Gbps
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network Network Interface	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16 Ethernet (RJ45) 1 Gbps IPv4/v6, TCP/IP, UDP, RTP, STPS,
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network Network Interface	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16 Ethernet (RJ45) 1 Gbps IPv4/v6, TCP/IP, UDP, RTP, STPS, HTTP, HTTPS, ICMP, FTP, SMTP,
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network Network Interface	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16 Ethernet (RJ45) 1 Gbps IPv4/v6, TCP/IP, UDP, RTP, STPS, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPOE, Upnp, IGMP, SNMP, QoS, ARP Internet Explorer (6.0+),
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network Network Interface Supported protocol	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16 Ethernet (RJ45) 1 Gbps IPv4/v6, TCP/IP, UDP, RTP, STPS, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPOE, Upnp, IGMP, SNMP, QoS, ARP Internet Explorer (6.0+), Chrome, Firefox, Safari
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network Network Interface Supported protocol  Internet Browser	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16 Ethernet (RJ45) 1 Gbps IPv4/v6, TCP/IP, UDP, RTP, STPS, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPOE, Upnp, IGMP, SNMP, QoS, ARP Internet Explorer (6.0+), Chrome, Firefox, Safari User / Administrator
Pan Travel Tilt Travel Manual Speed Presets Preset Resolution Preset Speed Sequence Auto-Pan Cruise Proportional Pan & Tilt  Resume after Power Loss Home Function  Zone Title Network Network Interface Supported protocol	360° endless -10° ~ 190° 0.5° ~ 90°/s 256 0.225° 0.5° ~ 400°/s 8 4 8 On / Off (Pan and tilt speed is proportional to zoom ratio) Yes Preset, Sequence, Auto-Pan, Cruise 16 Ethernet (RJ45) 1 Gbps IPv4/v6, TCP/IP, UDP, RTP, STPS, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPOE, Upnp, IGMP, SNMP, QoS, ARP Internet Explorer (6.0+), Chrome, Firefox, Safari

Lens	
Lens type	Motorized with P-iris
Focal Length	4.4~ 132 mm
Zoom Ratio	30x (12 x Digital)
Focus Mode	Auto / Manual
Iris Range	F1.4-360
Iris	Auto / Manual
FOV	60.5° (Wide) - 2.3° (Tele)
General	
OnVif	Yes, OnVif profile S
Edge Storage	SD/ SDXC card slot
Audio	Two-way /G.711 /G.726
Digital In/out	4/2
Analog Video Output	1Vpp, 75Ω, PAL BNC connector
Thatog viaco Catput	class 2
Power Voltage	802.3at PoE+ (60W)/ AC 24V ±
Tower voitage	10%
Power Consumption	Max. 25W / 55W (w/ Heater)
Power Connector	3 pins terminal block / RJ45
Fan & Heater	Heater 24VAC / POE + 55W)
Fan	Yes
Environmental Casing	Weatherproof IP66
Languages	DE, ES, FR, IT, PT, RU, UK
Sustained Operating	-40°C ~ 50°C (-40°F ~ 122°F)
Temperature	
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Absolute maximum 4 hours	
Humidity	10% ~ 90% RH
Dimensions	ø192 x 282mm
Weight (Net)	Approx. 2320g
Warranty	3 years
Included accessories	Installation and Management
	software DVD, 24V AV 3A PSU
Part number	0070-05822
Optional accessories	
Auto Tracking License	0070-10015
1ch video management softwa	
Mini Gooseneck	0070-10002
Corner Plate Mini	0070-10004
Swan Neck Bracket	0017-05220
Pole Thin Direct Mounting	0070-10002
Pole Wide Direct Mounting	0070-10003
Vandal Proof Dome cover	0070-10021
60 Watt Power Injector	ELECTRA-P-60W
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