

XF60 HD IP series

Explosion proof, fixed
camera station



Overview

The Oxalis XF60 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.

The large format housing allows the installation of custom specified camera, lens and transmission equipment subject to conformity to certification, physical fit and acceptance.

Features

- ATEX and IECEx certified
- Electro-polished 316L stainless steel on all welded assemblies
- Wall mounting options (see separate datasheets)
- Supply voltage options (24 VAC, 110 or 230 VAC, 50/60Hz or 24VDC)
- Operating temperature from -60°C to +70°C*
- IP66/67 (IP68)

*Model dependent



Powering Business Worldwide

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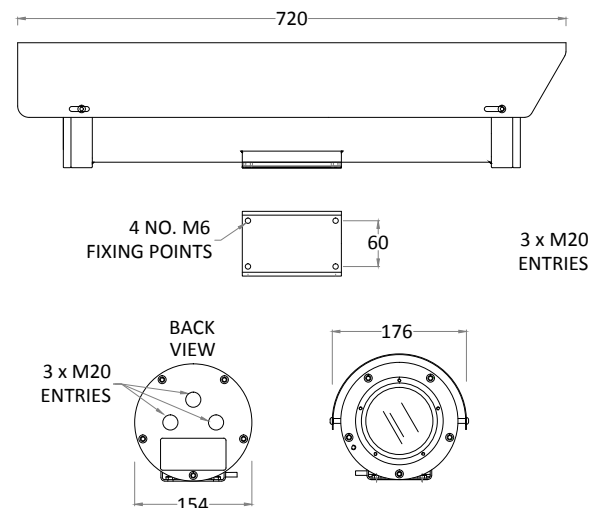
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Certifications			
ATEX	II 2 G Ex db (op pr) IICT4 Gb -60°C to +70°C II 2 D Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: ITS16ATEX101021X	INMETRO	Ex db (op pr) IICT4 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 170063X
IECEX	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	CCOE	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: P529141

General arrangement drawing (all dimensions in mm)



Specifications			
Features		Electrical	
Sun shield	Standard stainless steel 316L mirror finish	Supply voltage options	24 VAC, 110 or 230 VAC, 50/60Hz
Integral wiper	Optional (Silicone wiper blades that are resistant and do not perish after long exposure to ozone, UV, ice, snow, heat or cold)	Power consumption	37W Maximum (65W with low temperature operation)
Integral demister	Standard	Electrical connections	Terminal block for power, data and video specific to camera configuration
Integral washer pump	Optional	Cable entry	Three M20 entries located in housing rear flange or one M20 side entry with integral pump
Washer systems	Compatible with Oxalis XW or XWP washer tanks (see separate datasheets)	Mechanical	
Telemetry receiver	Integral - Pelco D, P	Body material	Electro-polished 316L stainless steel on all welded assemblies
IP direct fibre out options	Optional media converter, simplex singlemode 9/125µm or multimode 50/125µm, 10/100Mb Ethernet, IEEE 802.3	Fixings material	A4 stainless steel
IP over coax	Optional integrated IP Ethernet-over-coax converter (must be used with compatible Rx equipment)	Camera station window	Toughened glass
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)	Mounting options	Pole or wall (see separate datasheets)
Ingress Protection Rating	IP66/67, IP68 (1.5m for 24 hours)	Operating temperature	From -60°C to +70°C (model dependent)
		Weight (Kg)	Up to 21 Kg depending on configuration

Camera options			
32x XNZ-6320 HP IP camera		22x zoom 3MP HD IP camera	
Image sensor	Progressive scan CMOS 1/2.8"	Image sensor	Progressive scan CMOS 1/2.8"
Resolution	Resolution: 1920x1080 @60fps to 320x240	Resolution	2304 x 1296 @ 30fps
Lens	32x optical 32x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 61.8° - 2.19°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 53.74° - 2.96°
Min. illumination	Colour : 0.05Lux (1/30sec, F1.6, 50IRE), B/W : 0.005Lux (1/30sec, F1.6, 50IRE)	Min. illumination	Colour : 0.002Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	H.264, H.265 MJPEG dual codec, multiple streaming, VBR/CBR	Streaming	Triple streams in H.264, H.265
Features	Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), auto focus, auto Iris, AGC, SSDR, ATW, SSNR, BLC, DIS, Defog	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards protocols	ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour	Standards protocols	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
33x zoom 3MP HD IP camera		22x zoom 5MP HD IP camera	
Image Sensor	Progressive scan CMOS 1/2.8"	Image Sensor	Progressive scan CMOS 1/2.7"
Resolution	2304 x 1296 @ 60fps	Resolution	2880 x 1620 @ 30fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 62.93° - 3.67°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 55.46° - 3.09°
Min. Illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)	Min. Illumination	Colour : 0.003Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	Five streams in H.264, H.265	Streaming	Triple streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP	Standards Protocols	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

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

XF60

Housing type

Visual camera housing

Visual camera housing with integral washer pump

Code

V

P

Wiper options

Integral wiper with switched 24VAC for external washer pump

Integral wiper

No wiper

Code

E

W

N

Video type

IP

Code

I

Day/night module

32x zoom 2MP HD IP camera

22x zoom 3MP HD IP camera

33x zoom 3MP HD IP camera

22x zoom 5MP HD IP camera

Code

P

U

V

W

Thermal core module

No thermal core

Code

N

Thermal core lens

No thermal imaging lens

Code

N

Video system

IP

Code

I

Supply voltage

24 VAC ±10% 50/60 Hz

110 VAC ±10% 50/60 Hz

230 VAC ±10% 50/60 Hz

24 VDC +/- 10% (-ve Earthed)

24 VDC +/- 10% (-ve isolated from Earth)

Special - price on application

Code

1

2

3

4

9

S

Camera rotation

Not applicable

Code

N

Transmission type

Standard electrical

Simplex singlemode 9/125µm ethernet

Simplex multimode 50/125µm ethernet

IP over coax

Customer specific transmission device

Code

0

3

4

5

C

Temperature type

T4, -20°C to +70°C*

T4, -40°C to +70°C*

T4, -20°C to +60°C

T4, -40°C to +60°C

T4, -60°C to +40°C

T5, -20°C to +65°C*

T5, -40°C to +65°C*

T5, -20°C to +60°C*

T5, -40°C to +60°C*

T5, -60°C to +40°C*

T6, -20°C to +40°C*

T6, -40°C to +40°C*

T6, -60°C to +40°C*

Code

A

B

1

2

3

C

D

4

5

6

7

8

9

*Subject to configuration restrictions

Certification

ATEX

IECEX

INMETRO

CCOE

Code

A

I

M

D

Protocol requirements

Pelco D protocol, baud rate 2400bps

Code

D

XF60 thermal image analogue series

Explosion proof, fixed
camera station



Overview

The Oxalis XF60 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.

The large format housing allows the installation of custom specified camera, lens and transmission equipment subject to conformity to certification, physical fit and acceptance.

This datasheet covers the thermal imaging configurations.

Features

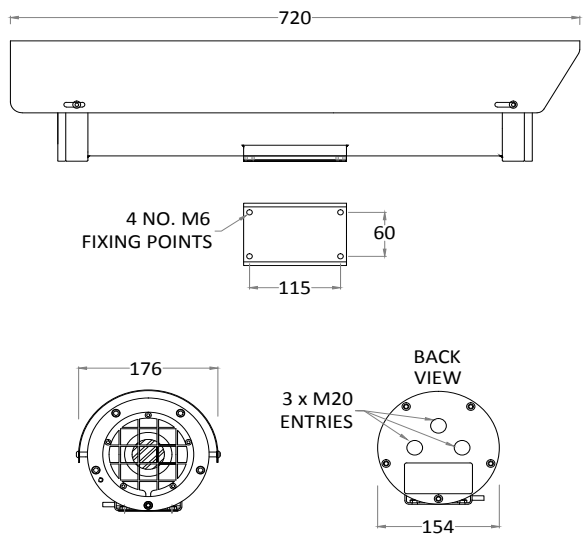
- ATEX, IECEx, Class 1 Division 1 and Zone 1 certified
- Electro-polished 316L stainless steel on all welded assemblies
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options (24 VAC, 110 or 230 VAC, 50/60Hz)
- Operating temperature from -60°C to +70°C*
- IP66/67 (IP68)

*Model dependent



Certifications			
ATEX	II 2 G Ex db (op pr) IIC T4 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	cLC CSA	Ex d IIC T4 (T5 On Request) LC1311396 -60°C ≤Ta ≤ +60°C. CAN CSA-C22.2 No.60079-0:2011 & 60079-1-2012 Certificate: 11396-1S-CSA
IECEx	Ex db (op pr) IIC T4 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	TR CU, EAC	1 Ex db (op pr) IIC T4 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.ITB04.B00587
INMETRO	Ex db (op pr) IIC T4 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	CCOE	Ex db (op pr) IIC T4 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
LCus CI/ZI	Class 1 Zone 1 A Ex d IIC T4 (T5 On Request) LC13A11396 Gb -60°C ≤Ta ≤ +60°C. UL 60079-0:2009 & 60079-1:2010 Certificate: 11396-1S-UL	CNEX	Ex db (op pr) IIC T4 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
cLCus CI/DI	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)	CERTEX	Ex db (op pr) IIC T4 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

Certification part number	Housing options 2410-TI, 2410-TI-50
Features	
Sun shield	Standard stainless steel 316L mirror finish
Integral demister	Standard
Telemetry receiver	Integral - Pelco D, P standard protocols (others to specification)
Analogue direct fibre out	Optional singlemode 9/125µm or multimode 50/125µm video and data fibre optic transmission, mounted inside the camera station
Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Electrical	
Supply voltage options	24 VAC, 110 or 230 VAC, 50/60Hz
Power consumption	37W maximum (65W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Three M20 entries located in housing rear flange
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 102mm Ø) with protective grill
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60°C to +70°C (model dependent)
Weight (Kg)	Up to 18 Kg depending on configuration
Thermal core module options	
T336 7.5-8.3Hz	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
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), 17µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
T336 25-30Hz	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
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), 17µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing
Thermal core lens options	
19mm lens	FoV 17° x 13° (336 x 256) / FoV 32° x 26° (640 x 512) Detection of object 4m x 1.5m: Typical 1550m
25mm lens	FoV 13° x 10° (336 x 256) / FoV 25° x 20° (640 x 512) Detection of object 4m x 1.5m: Typical 2200m
35mm lens	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
50mm lens	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
100mm lens	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. Ø102 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

XF60

Housing type

Thermal imaging housing with 50mm germanium window

Thermal imaging housing with 102mm germanium window no camera

Code

T

H

Wiper options

No wiper

Code

N

Video type

Analogue video

Code

A

Day/night module

No D/N camera fitted

Code

N

Thermal core module

T336 7.5-8.3Hz

T640 7.5-8.3Hz

T336 25-30Hz

T640 25-30Hz

Customer specific thermal camera

Code

8

2

9

4

C

Thermal core lens

19mm lens

25mm lens

35mm lens

50mm lens

100mm lens

Customer specific thermal imaging lens

Code

1

2

3

4

5

C

Video system

PAL

NTSC

Code

P

N

Supply voltage

24 VAC ±10% 50/60 Hz

110 VAC ±10% 50/60 Hz

230 VAC ±10% 50/60 Hz

Special - price on application

Code

1

2

3

S

Transmission type

Standard electrical

Simplex singlemode 9/125µm video/data

Simplex multimode 50/125µm video/data

Customer specific transmission device

Code

0

1

2

C

Temperature type

T4, -20°C to +70°C*

T4, -40°C to +70°C*

T4, -20°C to +60°C

T4, -40°C to +60°C

T4, -60°C to +40°C

T5, -20°C to +65°C*

T5, -40°C to +65°C*

T5, -20°C to +60°C*

T5, -40°C to +60°C*

T5, -60°C to +40°C*

T6, -20°C to +40°C*

T6, -40°C to +40°C*

T6, -60°C to +40°C*

Code

A

B

1

2

3

C

D

4

5

6

7

8

9

*Subject to configuration restrictions

Certification

ATEX

IECEX

INMETRO

LCus C1, Z1

cLCus C1, D1

cLC CSA

TR CU, EAC

CCOE

CNEX

CERTEX

Code

A

I

M

U

Z

C

R

D

X

T

Protocol requirements

Pelco D protocol, baud rate 2400bps

Pelco P protocol, baud rate 4800bps

Vicon protocol, baud rate 4800bps

HERNISTM protocol

Coe protocol

Special - price on application

No control protocol required

Code

D

P

V

H

C

S

N

Camera rotation

Not applicable

Code

N

XF40 day/night HD IP 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.

Features

- ATEX and IECEx certified
- Electro-polished 316L stainless steel on all welded assemblies
- Camera station window in toughened glass
- Pole or wall mounting options (see separate datasheets)
- Supply voltage (24 VAC or 24VDC)
- Operating temperature -60°C to +70°C*
- IP66/67 (IP68)

*Model dependent



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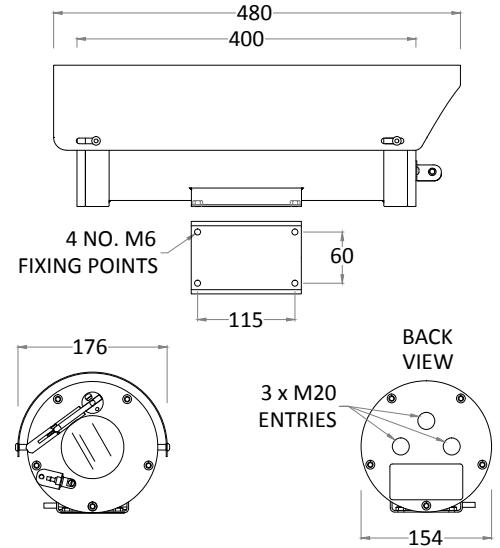
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Certifications

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IECEx	Ex db (op pr) IIC T4 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	CCOE	Ex db (op pr) IIC T4 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: P529141

General arrangement drawing (all dimensions in mm)



Specifications

Features	Electrical
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 XW or XWP washer tanks (see datasheets)
Telemetry receiver	Integral - Pelco D, P
IP direct fibre out options	Optional media converter, simplex singlemode 9/125µm or multimode 50/125µm, 10/100Mb Ethernet, IEEE 802.3
IP over coax	Optional integrated IP Ethernet-over-coax converter (must be used with compatible Rx equipment)
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)
Weight (Kg)	Up to 15Kg depending on configuration
	Electrical connections
	Terminal block for power, data and video specific to camera configuration
	Cable entry
	Three M20 entries located in housing rear flange
	Mechanical
	Body material
	Electro-polished 316L stainless steel on all welded assemblies
	Fixings material
	A4 stainless steel
	Camera station window
	Toughened glass
	Mounting options
	Pole or wall (see separate datasheets)
	Operating temperature
	From -60°C to +70°C (model dependent)

Camera options

32x XNZ-6320 HP IP camera	22x zoom 3MP HD IP camera
Image sensor	Progressive scan CMOS 1/2.8"
Resolution	Resolution: 1920x1080 @60fps to 320x240
Lens	32x optical 32x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 61.8° - 2.19°
Min. illumination	Colour : 0.05Lux (1/30sec, F1.6, 50IRE), B/W : 0.005Lux (1/30sec, F1.6, 50IRE)
Streaming	H.264, H.265 MJPEG dual codec, multiple streaming, VBR/CBR
Features	Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), auto focus, auto Iris, AGC, SSDR, ATW, SSNR III, BLC, DIS, Defog
Standards protocols	ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, RTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
33x zoom 3MP HD IP camera	22x zoom 5MP HD IP camera
Image Sensor	Progressive scan CMOS 1/2.8"
Resolution	2304 x 1296 @ 60fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 62.93° - 3.67°
Min. Illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)
Streaming	Five streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
	Image Sensor
	Progressive scan CMOS 1/2.7"
	Resolution
	2880 x 1620 @ 30fps
	Lens
	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 55.46° - 3.09°
	Min. Illumination
	Colour : 0.003Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
	Streaming
	Triple streams in H.264, H.265
	Features
	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
	Standards Protocols
	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

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

Housing type

Visual camera housing

Code

V

Wiper options

Integral wiper with switched 24VAC for external washer pump
No wiper

Code

E
N

Video type

IP

Code

I

Day/night module

32x zoom 2MP HD IP camera
22x zoom 3MP HD IP camera
33x zoom 3MP HD IP camera
22x zoom 5MP HD IP camera

Code

P
U
V
W

Thermal core module

No thermal core

Code

N

Thermal core lens

No thermal imaging lens

Code

N

Video system

IP

Code

I

Supply voltage

24 VAC ±10% 50/60 Hz
24 VDC +/- 10% (-ve Earthed)
24 VDC +/- 10% (-ve isolated from Earth)
Special - price on application

Code

1
4
9
S

Transmission type

Standard electrical
Simplex singlemode
9/125µm ethernet
Simplex multimode
50/125µm ethernet
IP over coax
Customer specific transmission device

Code

0
3
4
5
C

Temperature type

T4, -20°C to +70°C*
T4, -40°C to +70°C*
T4, -20°C to +60°C
T4, -40°C to +60°C
T4, -60°C to +40°C
T5, -20°C to +65°C*
T5, -40°C to +65°C*
T5, -20°C to +60°C*
T5, -40°C to +60°C*
T5, -60°C to +40°C*
T6, -20°C to +40°C*
T6, -40°C to +40°C*
T6, -60°C to +40°C*

Code

A
B
1
2
3
C
D
4
5
6
7
8
9

Certification

ATEX
IECEX
INMETRO
CCOE

Code

A
I
M
D

Protocol requirements

Pelco D protocol, baud rate 2400bps

Code

D

Camera rotation

Not applicable

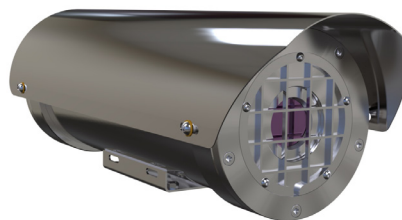
Code

N

*Subject to configuration restrictions

XF40 thermal image 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 covers the thermal imaging configurations

Features

- ATEX, IECEx, Class 1 Division 1 and Zone 1 certified
- Electro-polished 316L stainless steel on all welded assemblies
- Standard stainless steel 316L mirror finish
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options (24 VAC, 110 or 230 VAC, 50/60Hz)
- Operating temperature -60°C to +70°C*
- IP66/67 (IP68)

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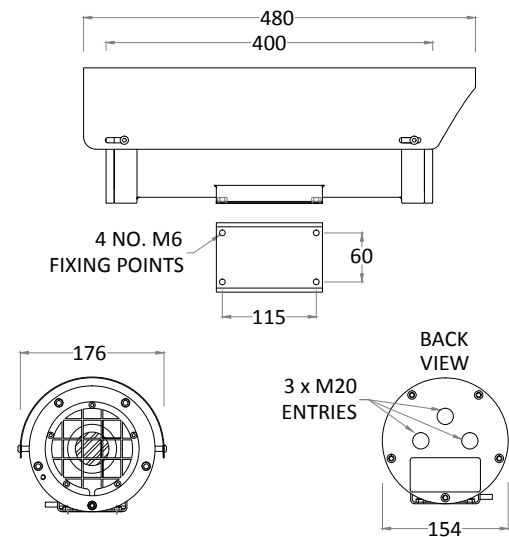
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Certifications			
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IECEx	Ex db (op pr) IICT T4 Gb -60°C to +70°C Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: IECEx ITS 15.0068X	TR CU, EAC	1 Ex db (op pr) IICT T4 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.ITB04.B00587
INMETRO	Ex db (op pr) IICT T4 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	CCOE	Ex db (op pr) IICT T4 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
LCus CI/ZI	Class 1 Zone 1 A Ex d IICT T4 (T5 On Request) LC13A11396 Gb -60°C ≤Ta ≤ +60°C. UL 60079-0:2009 & 60079-1:2010 Certificate: 11396-1S-UL	CNEX	Ex db (op pr) IICT T4 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
cLCus CI/DI	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)	CERTEX	Ex db (op pr) IICT T4 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

Certification part number	Housing options 1410-TI, 1410-TI-50
Features	
Sun shield	Standard stainless steel 316L mirror finish
Integral demister	Standard
Telemetry receiver	Integral - Pelco D, P standard protocols (others to specification)
Analogue direct fibre out	Optional singlemode 9/125µm or multimode 50/125µm video and data fibre optic transmission, mounted inside the camera station
Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Electrical	
Supply voltage options	24 VAC, 110 or 230 VAC, 50/60Hz
Power consumption	37W maximum (65W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Three M20 entries located in housing rear flange
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 102mm Ø) with protective grill
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60°C to +70°C (model dependent)
Weight (Kg)	Up to 15 Kg depending on configuration
Thermal core module options	
T336 7.5-8.3Hz	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
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), 17µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
T336 25-30Hz	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
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), 17µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing
Thermal core lens options	
19mm lens	FoV 17° x 13° (336 x 256) / FoV 32° x 26° (640 x 512) Detection of object 4m x 1.5m: Typical 1550m
25mm lens	FoV 13° x 10° (336 x 256) / FoV 25° x 20° (640 x 512) Detection of object 4m x 1.5m: Typical 2200m
35mm lens	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
50mm lens	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
100mm lens	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. Ø102 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

XF40

Housing type

Thermal imaging housing with 50mm germanium window

Thermal imaging housing with 102mm germanium window no camera

Code

T

H

Wiper options

No wiper

Code

N

Video type

Analogue video

Code

A

Day/night module

No D/N camera fitted

Code

N

Thermal core module

T336 7.5-8.3Hz

T640 7.5-8.3Hz

T336 25-30Hz

T640 25-30Hz

Customer specific thermal camera

Code

8

2

9

4

C

Thermal core lens

19mm lens

25mm lens

35mm lens

50mm lens

100mm lens

Customer specific thermal imaging lens

Code

1

2

3

4

5

C

Video system

PAL

NTSC

Code

P

N

Supply voltage

24 VAC ±10% 50/60 Hz

110 VAC ±10% 50/60 Hz

230 VAC ±10% 50/60 Hz

Special - price on application

Code

1

2

3

S

Transmission type

Standard electrical

Simplex singlemode 9/125µm video/data

Simplex multimode 50/125µm video/data

Customer specific transmission device

Code

0

1

2

C

Temperature type

T4, -20°C to +70°C*

T4, -40°C to +70°C*

T4, -20°C to +60°C

T4, -40°C to +60°C

T4, -60°C to +40°C

T5, -20°C to +65°C*

T5, -40°C to +65°C*

T5, -20°C to +60°C*

T5, -40°C to +60°C*

T5, -60°C to +40°C*

T6, -20°C to +40°C*

T6, -40°C to +40°C*

T6, -60°C to +40°C*

Code

A

B

1

2

3

C

D

4

5

6

7

8

9

*Subject to configuration restrictions

Certification

ATEX

IECEX

INMETRO

LCus C1, Z1

cLCus C1, D1

cLC CSA

TR CU, EAC

CCOE

CNEX

CERTEX

Code

A

I

M

U

Z

C

R

D

X

T

Protocol requirements

Pelco D protocol, baud rate 2400bps

Pelco P protocol, baud rate 4800bps

Vicon protocol, baud rate 4800bps

HERNISTM protocol

Coe protocol

Special - price on application

No control protocol required

Code

D

P

V

H

C

S

N

Camera rotation

Not applicable

Code

N

XF26 HD IP series

Explosion proof, fixed
camera station



Overview

The Oxalis XF26 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.

Features

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

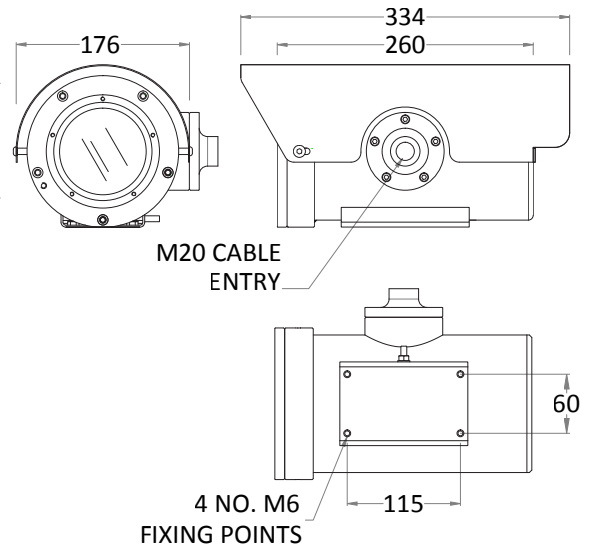
*Model dependent



Certifications

ATEX	II 2 G Ex db (op pr) IIC T4 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	INMETRO	Ex db (op pr) IIC T4 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 170063X
IECEX	Ex db (op pr) IIC T4 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	CCOE	Ex db (op pr) IIC T4 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: P529141

General arrangement drawing (all dimensions in mm)



Specifications

Features		Electrical	
Sun shield	Standard stainless steel 316L mirror finish	Supply voltage options	24 VAC
Integral wiper	No wiper	Power consumption	18W Maximum (45W with low temperature operation)
Integral demister	Standard	Electrical connections	Terminal block for power, data and video specific to camera configuration
Washer systems	No washer	Cable entry	One M20 side entry
IP over coax	Optional integrated IP Ethernet-over-coax converter subject to configuration restrictions (must be used with compatible Rx equipment)	Mechanical	
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)	Body material	Electro-polished 316L stainless steel on all welded assemblies
Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)	Fixings material	A4 stainless steel
		Camera station window	Toughened glass
		Mounting options	Pole or wall (see separate datasheets)
		Operating temperature	From -60°C to +70°C (model dependent)
		Weight (Kg)	Up to 8Kg depending on configuration

Camera options

32x XNZ-6320 HP IP camera		22x zoom 3MP HD IP camera	
Image sensor	Progressive scan CMOS 1/2.8"	Image sensor	Progressive scan CMOS 1/2.8"
Resolution	Resolution: 1920x1080 @60fps to 320x240	Resolution	2304 x 1296 @ 30fps
Lens	32x optical 32x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 61.8° - 2.19°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 53.74° - 2.96°
Min. illumination	Colour : 0.05Lux (1/30sec, F1.6, 50IRE), B/W : 0.005Lux (1/30sec, F1.6, 50IRE)	Min. illumination	Colour : 0.002Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	H.264, H.265 MJPEG dual codec, multiple streaming, VBR/CBR	Streaming	Triple streams in H.264, H.265
Features	Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), auto focus, auto Iris, AGC, SDDR, ATW, SSNR III, BLC, DIS, Defog	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards protocols	ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour	Standards protocols	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
33x zoom 3MP HD IP camera		22x zoom 5MP HD IP camera	
Image Sensor	Progressive scan CMOS 1/2.8"	Image Sensor	Progressive scan CMOS 1/2.7"
Resolution	2304 x 1296 @ 60fps	Resolution	2880 x 1620 @ 30fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 62.93° - 3.67°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 55.46° - 3.09°
Min. Illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)	Min. Illumination	Colour : 0.003Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	Five streams in H.264, H.265	Streaming	Triple streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP	Standards Protocols	ONVIF Profiles G, S & T, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

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

XF26

Housing type

Visual camera housing

Code

V

Wiper options

No wiper

Code

N

Video type

IP

Code

I

Day/night module

32x zoom 2MP HD IP camera
22x zoom 3MP HD IP camera
33x zoom 3MP HD IP camera
22x zoom 5MP HD IP camera

Code

P
U
V
W

Thermal core module

No thermal core

Code

N

Thermal core lens

No thermal imaging lens

Code

N

Video system

IP

Code

I

Supply voltage

24 VAC ±10% 50/60 Hz
24 VDC +/- 10% (-ve Earthed)
24 VDC +/- 10% (-ve isolated from Earth)
PoE
Special - price on application

Code

1*
4
9
5**
S

Transmission type

Standard electrical
IP over coax

Code

0
5

Temperature type

T4, -20°C to +70°C*
T4, -40°C to +70°C*
T4, -20°C to +60°C
T4, -40°C to +60°C
T4, -60°C to +40°C
T5, -20°C to +65°C*
T5, -40°C to +65°C*
T5, -20°C to +60°C*
T5, -40°C to +60°C*
T5, -60°C to +40°C*
T6, -20°C to +40°C*
T6, -40°C to +40°C*
T6, -60°C to +40°C*

Code

A
B
1
2
3
C
D
4
5
6
7
8
9

Certification

ATEX
IECEX
INMETRO
CCOE

Code

A
I
M
D

Protocol requirements

Pelco D protocol, baud rate 2400bps
No control protocol required

Code

D
N

Camera rotation

Not applicable

Code

N

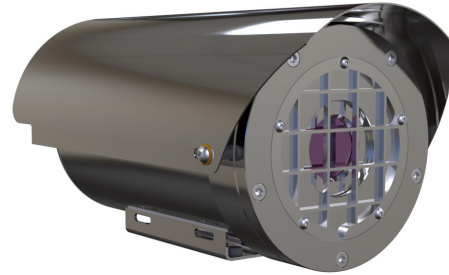
*Not camera P

**Not cameras U, V, W

DSOX0034/J 06/24

XF26 thermal image analogue series

Explosion proof, fixed
camera station



Overview

The Oxalis XF26 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 covers the thermal imaging configurations

Features

- ATEX, IECEx, Class 1 Division 1 and Zone 1 certified
- Electro-polished 316L stainless steel on welded assembly
- Camera station window in internal AR and external carbon coated germanium 50 mm Ø with protective grill
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options (24 VAC)
- Operating temperature -60°C to +70°C*
- IP66/67 (IP68)

*Model dependent



ATEX IECEx



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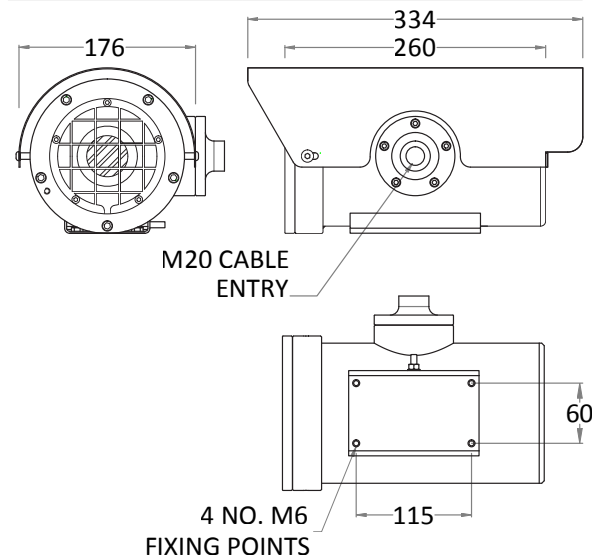
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Certifications			
ATEX	II 2 G Ex db (op pr) IIC T4 Gb -60°C to +70°C II 2 D Ex tb (op pr) IIIC T140°C Db IP6x On Request: T5 -60°C to +65°C, T6 -60°C to +40°C On request: T135 -60°C to +65°C Certificate: ITS16ATEX101021X	cLC CSA	Ex d IIC T4 (T5 On Request) LC1311396 -60°C ≤Ta ≤ +60°C. CAN CSA-C22.2 No.60079-0:2011 & 60079-1:2012 Certificate: 11396-1S-CSA
IECEx	Ex db (op pr) IIC T4 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	TR CU, EAC	1 Ex db (op pr) IIC T4 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.IT'E04.B00587
INMETRO	Ex db (op pr) IIC T4 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	CCOE	Ex db (op pr) IIC T4 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
LCus CI/ZI	Class 1 Zone 1 A Ex d IIC T4 (T5 On Request) LC13A11396 Gb -60°C ≤Ta ≤ +60°C. UL 60079-0:2009 & 60079-1:2010 Certificate: 11396-1S-UL	CNEX	Ex db (op pr) IIC T4 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
cLCus CI/DI	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)	CERTEX	Ex db (op pr) IIC T4 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	
Certification part number	Housing options 2410-04-TI-50
Features	
Sun shield	Standard stainless steel 316L mirror finish
Integral demister	Standard
Telemetry receiver	Integral - Pelco D, P standard protocols (others to specification)
Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Electrical	
Supply voltage options	24 VAC
Power consumption	18W maximum (45W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	One M20 side entry
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 102mm Ø) with protective grill
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60°C to +70°C (model dependent)
Weight (Kg)	Up to 8Kg depending on configuration
Thermal core module options	
T336 7.5-8.3Hz	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
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), 17μ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
T336 25-30Hz	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
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), 17μ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing
Thermal core lens options	
19mm lens	FoV 17° x 13° (336 x 256) / FoV 32° x 26° (640 x 512) Detection of object 4m x 1.5m: Typical 1550m
25mm lens	FoV 13° x 10° (336 x 256) / FoV 25° x 20° (640 x 512) Detection of object 4m x 1.5m: Typical 2200m
35mm lens	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
50mm lens	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

XF26

Housing type
Thermal imaging housing with 50mm germanium window

Code
T

Wiper options
No wiper

Code
N

Video type
Analogue video

Code
A

Day/night module
No D/N camera fitted

Code
N

Thermal core module

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

19mm lens	1
25mm lens	2
35mm lens	3
50mm lens	4
Customer specific thermal imaging lens	C

Video system

PAL	P
NTSC	N

Supply voltage

24 VAC ±10% 50/60 Hz	1
Special - price on application	S

Camera rotation

Not applicable	N
----------------	---

Transmission type
Standard electrical

Code
0

Temperature type

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

Certification

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

Protocol requirements

Pelco D protocol, baud rate 2400bps	D
Pelco P protocol, baud rate 4800bps	P
Vicon protocol, baud rate 4800bps	V
HERNISTM protocol	H
Coe protocol	C
Special - price on application	S
No control protocol required	N

SF60 HD IP series

Fixed camera station



Overview

The Oxalis SF60 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

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

The large format housing allows the installation of custom specified camera, lens and transmission equipment subject to physical fit and acceptance.

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 from -60°C to +70°C*
- IP66/67

*Model dependent



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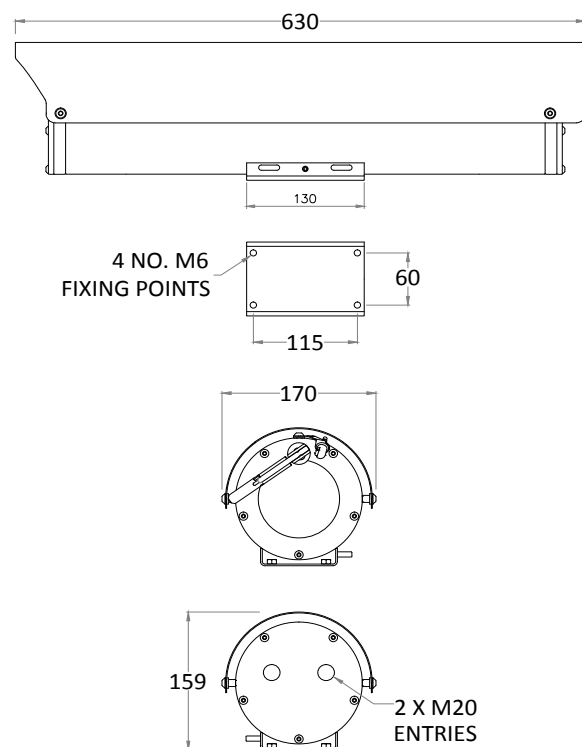
All other trademarks are property of their respective owners.

All specifications, dimensions, weights and tolerances are nominal (typical) and Eaton reserve the right to vary all data without prior notice.
No liability is accepted for any consequence of use.

Specifications	
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)
Telemetry receiver	Integral - Pelco D
IP direct fibre out	Optional media converter, Simplex/Duplex Singlemode 9/125µm or Multimode 50/125µm, 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	37W Maximum (65W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Two M20 entries located in housing rear flange
Mechanical	
Body material	Electro-polished 316L stainless steel on all welded assemblies
Fixings material	A4 stainless steel
Camera station window	Toughened glass
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60° C to +70° C (model dependent)
Weight (Kg)	Up to 13Kg depending on configuration
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Ingress protection rating	IP66/67

Camera options			
32x XNZ-6320 HP IP camera		22x zoom 3MP HD IP camera	
Image sensor	Progressive scan CMOS 1/2.8"	Image sensor	Progressive scan CMOS 1/2.8"
Resolution	Resolution: 1920x1080 @60fps to 320x240	Resolution	2304 x 1296 @ 30fps
Lens	32x optical 32x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 61.8° - 2.19°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 53.74° - 2.96°
Min. illumination	Colour : 0.05Lux (1/30sec, F1.6, 50IRE), B/W : 0.005Lux (1/30sec, F1.6, 50IRE)	Min. illumination	Colour : 0.002Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	H.264, H.265 MJPEG dual codec, multiple streaming, VBR/CBR	Streaming	Triple streams in H.264, H.265
Features	Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), auto focus, auto Iris, AGC, SSDR, ATW, SSNRIII, BLC, DIS, Defog	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards protocols	ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour	Standards protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
33x zoom 3MP HD IP camera		22x zoom 5MP HD IP camera	
Image Sensor	Progressive scan CMOS 1/2.8"	Image Sensor	Progressive scan CMOS 1/2.7"
Resolution	2304 x 1296 @ 60fps	Resolution	2880 x 1620 @ 30fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 62.93° - 3.67°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 55.46° - 3.09°
Min. Illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)	Min. Illumination	Colour : 0.003Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	Five streams in H.264, H.265	Streaming	Triple streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP	Standards Protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

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

SF60

Housing type

Visual camera housing

Code

V

Wiper options

Integral wiper with switched 24VAC for external washer pump

No wiper

Code

E

N

Video type

HD IP system

Code

I

Day/night module

32x zoom 2MP HD IP camera

22x zoom 3MP HD IP camera

33x zoom 3MP HD IP camera

22x zoom 5MP HD IP camera

Code

P

U

V

W

Thermal core module

No thermal core

Code

N

Thermal core lens

No thermal imaging lens

Code

N

Video system

IP

Code

I

Camera rotation

Not applicable

Code

N

Supply voltage

24 VAC ±10% 50/60 Hz

110 VAC ±10% 50/60 Hz

230 VAC ±10% 50/60 Hz

24 VDC +/- 10% (-ve Earthed)

24 VDC +/- 10% (-ve isolated from Earth)

Special - price on application

Code

1

2

3

4

9

S

Transmission type

Standard electrical

Simplex singlemode 9/125µm ethernet

Simplex multimode 50/125µm ethernet

IP over coax

Duplex singlemode 9/125µm

Duplex Multimode 50/125µm

Customer specific fibre transmission device

Code

0

3

4

5

6

7

C

Temperature type

-20°C to +70°C*

-40°C to +70°C*

-20°C to +60°C

-40°C to +60°C

-60°C to +40°C

Code

A

B

1

2

3

*Subject to configuration restrictions

Certification

No Ex certification required

Code

N

Protocol requirements

Pelco D protocol, baud rate 2400bps

Code

D

SF60 thermal image analogue series

Fixed camera station



Overview

The Oxalis SF60 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

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

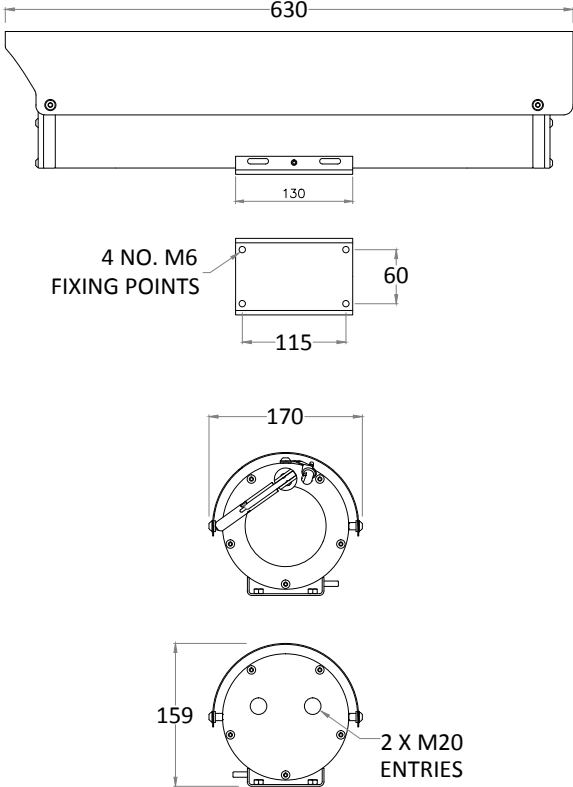
The large format housing allows the installation of custom specified camera, lens and transmission equipment subject to physical fit and acceptance.

This datasheet covers the thermal imaging configurations.

Features

- Electro-polished 316L stainless steel on all welded assemblies
- Compatible with Oxalis SW washer tanks (see separate datasheets)
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options (24 VAC, 110 or 230 VAC, 50/60Hz)
- Operating temperature from -60°C to +70°C*
- IP66/67

*Model dependent

Specifications		General arrangement drawing (all dimensions in mm)	
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)		
Telemetry receiver	Integral - Pelco D, P standard protocols (others to specification)		
Rotation	Continuous Pan or 350° Rotation (+/- 175° from straight ahead)		
Analogue direct fibre out	Optional singlemode 9/125µm or multimode 50/125µm video and data fibre optic transmission, mounted inside the camera station		
Ingress protection rating	IP66/67		
Type approval	DNVGLCG-0339, 2016 (copper transmission only)		
Electrical			
Supply voltage options	24 VAC, 110 or 230 VAC, 50/60Hz		
Power consumption	37W Maximum (65W with low temperature operation)		
Electrical connections	Terminal block for power, data and video specific to camera configuration		
Cable entry	Two M20 entries located in housing rear flange		
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 Ø50 mm		
Mounting options	Pole or wall (see separate datasheets)		
Operating temperature	From -60° C to +70° C (model dependent)		
Weight (Kg)	Up to 13Kg depending on configuration		
Thermal core module options			
T336 7.5-8.3Hz	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		
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), 17µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement		
T336 25-30Hz	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		
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), 17µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing		
Thermal core lens options			
19mm lens	FoV 17° x 13° (336 x 256) / FoV 32° x 26° (640 x 512) Detection of object 4m x 1.5m: Typical 1550m		
25mm lens	FoV 13° x 10° (336 x 256) / FoV 25° x 20° (640 x 512) Detection of object 4m x 1.5m: Typical 2200m		
35mm lens	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		
50mm lens	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		
100mm lens	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. Ø90 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

SF60

Housing type

Thermal imaging housing with 50mm germanium window

H

Thermal imaging housing with 90mm germanium window

T

Wiper options

Integral wiper switched 24VAC for external washer pump

E

No wiper

N

Video type

Analogue video

A

Day/night module

No D/N camera fitted

N

Thermal core module

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

19mm lens

1

25mm lens

2

35mm lens

3

50mm lens

4

100mm lens

5

Customer specific thermal imaging lens

C

Video system

PAL

P

NTSC

N

Transmission type

Standard electrical

0

Simplex singlemode 9/125µm video/data

1

Simplex multimode 50/125µm video/data

2

Customer specific transmission device

C

Temperature type

-20°C to +70°C*

A

-40°C to +70°C*

B

-20°C to +60°C

1

-40°C to +60°C

2

-60°C to +40°C

3

*Subject to configuration restrictions

Certification

No Ex certification required

N

Protocol requirements

Pelco D protocol, baud rate 2400bps

D

Pelco P protocol, baud rate 4800bps

P

Vicon protocol, baud rate 4800bps

V

HERNISTM protocol

H

Coe protocol

C

Special - price on application

S

No control protocol required

N

Camera rotation

Not applicable

N

Supply voltage

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

SF40 HD IP series

Fixed camera station



Overview

The Oxalis SF40 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

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

Features

- Electro-polished 316L stainless steel on all welded assemblies
- Pole or Wall mounting options (see separate datasheets)
- Supply Voltage Options (24 VAC, 50/60Hz)
- Operating temperature from -60°C to +70°C*
- IP66/67

*Model dependent



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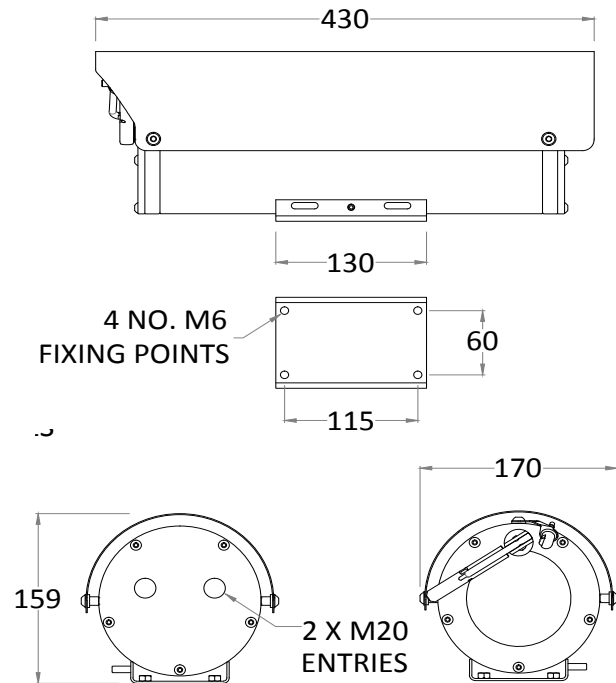
Specifications

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)
Telemetry receiver	Integral - Pelco D
IP direct fibre out	Optional media converter, Simplex/Duplex Singlemode 9/125µm or Multimode 50/125µm, 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, 50/60Hz
Power consumption	37W Maximum (65W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Two M20 entries located in housing rear flange
Mechanical	
Body material	Electro-polished 316L stainless steel on all welded assemblies
Fixings material	A4 stainless steel
Camera station window	Toughened glass
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60° C to +70° C (model dependent)
Weight (Kg)	Up to 9Kg depending on configuration
Type approval	DNVGLCG-0339, 2016 (copper transmission only)
Ingress protection rating	IP66/67

Camera options

32x XNZ-6320 HP IP camera		22x zoom 3MP HD IP camera	
Image sensor	Progressive scan CMOS 1/2.8"	Image sensor	Progressive scan CMOS 1/2.8"
Resolution	Resolution: 1920x1080 @60fps to 320x240	Resolution	2304 x 1296 @ 30fps
Lens	32x optical 32x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 61.8° - 2.19°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 53.74° - 2.96°
Min. illumination	Colour : 0.05Lux (1/30sec, F1.6, 50IRE), B/W : 0.005Lux (1/30sec, F1.6, 50IRE)	Min. illumination	Colour : 0.002Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	H.264, H.265 MJPEG dual codec, multiple streaming, VBR/CBR	Streaming	Triple streams in H.264, H.265
Features	Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), auto focus, auto Iris, AGC, SSDR, ATW, SSNR III, BLC, DIS, Defog	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards protocols	ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour	Standards protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
33x zoom 3MP HD IP camera		22x zoom 5MP HD IP camera	
Image Sensor	Progressive scan CMOS 1/2.8"	Image Sensor	Progressive scan CMOS 1/2.7"
Resolution	2304 x 1296 @ 60fps	Resolution	2880 x 1620 @ 30fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 62.93° - 3.67°	Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 55.46° - 3.09°
Min. Illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)	Min. Illumination	Colour : 0.003Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	Five streams in H.264, H.265	Streaming	Triple streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)	Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP	Standards Protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

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

SF40

Housing type
Visual camera housing

Code
V

Wiper options
Integral wiper with
switched 24VAC for
external washer pump
No wiper

Code
E
N

Video type
HD IP system

Code
I

Day/night module
32x zoom 2MP HD IP camera
22x zoom 3MP HD IP camera
33x zoom 3MP HD IP camera
22x zoom 5MP HD IP camera

Code
P
U
V
W

Thermal core module
No thermal core

Code
N

Thermal core lens
No thermal imaging lens

Code
N

Video system
IP

Code
I

Supply voltage
24 VAC ±10% 50/60 Hz
24 VDC +/- 10% (-ve Earthed)
24 VDC +/- 10% (-ve isolated from Earth)
Special - price on application

Code
1
4
9
S

Transmission type
Standard electrical
Simplex singlemode
9/125µm ethernet
Simplex multimode
50/125µm ethernet
IP over coax
Duplex singlemode
9/125µm
Duplex Multimode
50/125µm
Customer specific fibre
transmission device

Code
0
3
4
5
6
7
C

Temperature type
-20°C to +70°C*
-40°C to +70°C*
-20°C to +60°C
-40°C to +60°C
-60°C to +40°C

Code
A
B
1
2
3

*Subject to configuration restrictions

Certification
No Ex certification required

Code
N

Protocol requirements
Pelco D protocol, baud rate 2400bps

Code
D

Camera rotation
Not applicable

Code
N

SF40 thermal image analogue series

Fixed camera station



Overview

The Oxalis SF40 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

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

This datasheet covers the thermal imaging configurations.

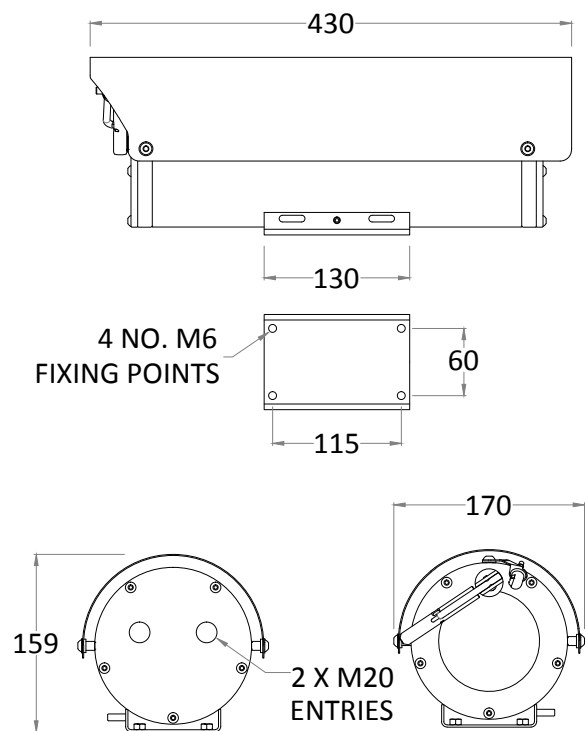
Features

- Electro-polished 316L stainless steel on all welded assemblies
- Compatible with Oxalis SW washer tanks (see separate datasheets)
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options (24 VAC, 50/60Hz)
- Operating temperature -60°C to +70°C*
- IP66/67

*Model dependent

Specifications	
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)
Telemetry receiver	Integral - Pelco D, P standard protocols (others to specification)
Analogue direct fibre out	Optional singlemode 9/125µm or multimode 50/125µm video and data fibre optic transmission, mounted inside the camera station
Ingress protection rating	IP66/67
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Electrical	
Supply voltage options	24 VAC, 50/60Hz
Power consumption	37W Maximum (65W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Two M20 entries located in housing rear flange
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 Ø50 mm
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60° C to +70° C (model dependent)
Weight (Kg)	Up to 9Kg depending on configuration
Thermal core module options	
T336 7.5-8.3Hz	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
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), 17µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
T336 25-30Hz	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
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), 17µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing
Thermal core lens options	
19mm lens	FoV 17° x 13° (336 x 256) / FoV 32° x 26° (640 x 512) Detection of object 4m x 1.5m: Typical 1550m
25mm lens	FoV 13° x 10° (336 x 256) / FoV 25° x 20° (640 x 512) Detection of object 4m x 1.5m: Typical 2200m
35mm lens	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
50mm lens	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
100mm lens	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. Ø90 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

SF40

Housing type

Thermal imaging housing with 50mm germanium window

H

Thermal imaging housing with 90mm germanium window

T

Wiper options

Integral wiper switched 24VAC for external washer pump

E

No wiper

N

Video type

Analogue video

A

Day/night module

No D/N camera fitted

N

Thermal core module

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

19mm lens

1

25mm lens

2

35mm lens

3

50mm lens

4

100mm lens

5

Customer specific thermal imaging lens

C

Video system

PAL

P

NTSC

N

Transmission type

Standard electrical

0

Simplex singlemode 9/125µm video/data

1

Simplex multimode 50/125µm video/data

2

Customer specific transmission device

C

Temperature type

-20°C to +70°C*

A

-40°C to +70°C*

B

-20°C to +60°C

1

-40°C to +60°C

2

-60°C to +40°C

3

*Subject to configuration restrictions

Certification

No Ex certification required

N

Protocol requirements

Pelco D protocol, baud rate 2400bps

D

Pelco P protocol, baud rate 4800bps

P

Vicon protocol, baud rate 4800bps

V

HERNISTM protocol

H

Coe protocol

C

Special - price on application

S

No control protocol required

N

Camera rotation

Not applicable

N

Supply voltage

24 VAC ±10% 50/60 Hz

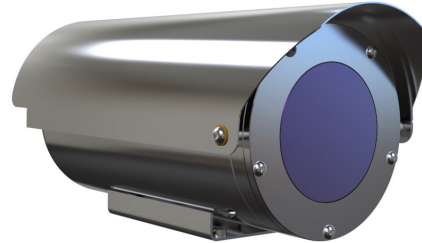
1

Special - price on application

S

SF26 thermal image analogue series

Fixed camera station



Overview

The Oxalis SF26 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

The camera housings 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
 - Compatible with Oxalis SW washer tanks (see separate datasheets)
 - Pole or wall mounting options (see separate datasheets)
 - Supply voltage options (24 VAC, 50/60Hz)
 - Operating temperature from -60°C to -70°C*
 - IP66/67
- *Model dependent

Specifications

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)
Telemetry receiver	Integral - Pelco D, P standard protocols (others to specification)
Ingress protection rating	IP66/67
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)

Electrical

Supply voltage options	24 VAC, 50/60Hz
Power consumption	17W Maximum (45W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Two M20 entries located in housing rear side

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 Ø50 mm
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60° C to +70° C (model dependent)
Weight (Kg)	Up to 8Kg depending on configuration

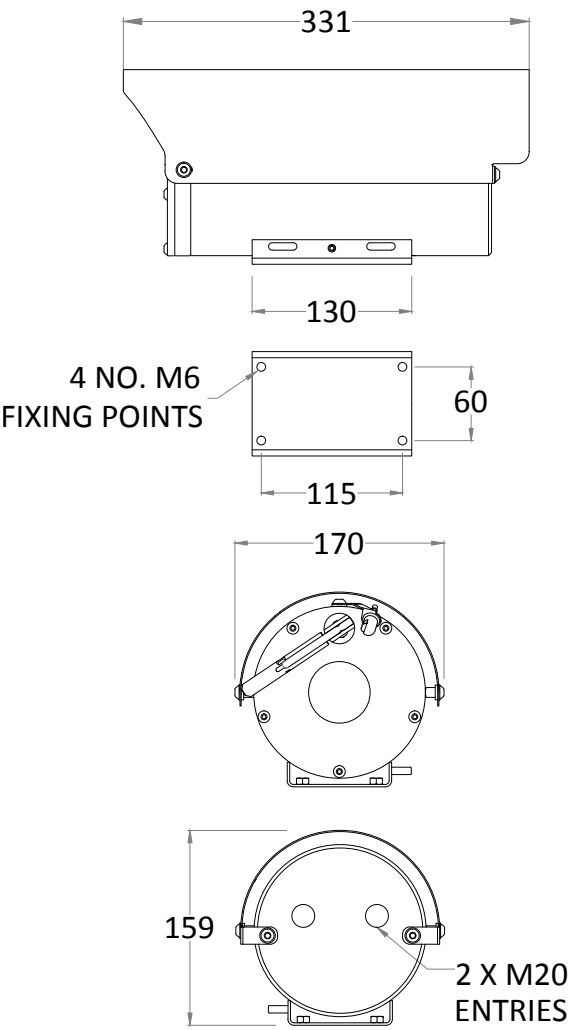
Thermal core module options

T336 7.5-8.3Hz	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
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), 17µ pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement
T336 25-30Hz	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
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), 17µ pixel size, 30Hz NTSC/25Hz PAL frame rate, digital detail enhancement. Subject to export restrictions and licensing

Thermal core lens options

19mm lens	FoV 17° x 13° (336 x 256) / FoV 32° x 26° (640 x 512) Detection of object 4m x 1.5m: Typical 1550m
25mm lens	FoV 13° x 10° (336 x 256) / FoV 25° x 20° (640 x 512) Detection of object 4m x 1.5m: Typical 2200m
35mm lens	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

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

SF26

Housing type

Thermal imaging housing with 90mm germanium window

Code

T

Wiper options

Integral wiper switched 24VAC for external washer pump
No wiper

Code

E
N

Video type

Analogue video

Code

A

Day/night module

No D/N camera fitted

Code

N

Thermal core module

T336 7.5-8.3Hz
T640 7.5-8.3Hz
T336 25-30Hz
T640 25-30Hz
Customer specific thermal camera

Code

8
2
9
4
C

Thermal core lens

19mm lens
25mm lens
35mm lens
Customer specific thermal imaging lens

Code

1
2
3
C

Video system

PAL
NTSC

Code

P
N

Transmission type

Standard electrical
Customer specific transmission device

Code

0
C

Temperature type

-20°C to +70°C*
-40°C to +70°C*
-20°C to +60°C
-40°C to +60°C
-60°C to +40°C

Code

A
B
1
2
3

*Subject to configuration restrictions

Certification

No Ex certification required

Code

N

Protocol requirements

Pelco D protocol, baud rate 2400bps
Pelco P protocol, baud rate 4800bps
Vicon protocol, baud rate 4800bps
HERNIS™ protocol
Coe protocol
Special - price on application
No control protocol required

Code

D
P
V
H
C
S
N

Camera rotation

Not applicable

Code

N

Supply voltage

24 VAC ±10% 50/60 Hz
Special - price on application

Code

1
S

DSOX0064/E 10/17

XF40 TI IP 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 covers the thermal imaging configurations

Features

- ATEX, IECEx, Class 1 Division 1 and Zone 1 certified
- Temperature alarm option
- Electro-polished 316L stainless steel on all welded assemblies
- Standard stainless steel 316L mirror finish
- Pole or wall mounting options (see separate datasheets)
- Supply voltage 24 VAC, 50/60Hz
- Operating temperature -60°C to +70°C*
- IP66/67 (IP68)



ATEX IECEx



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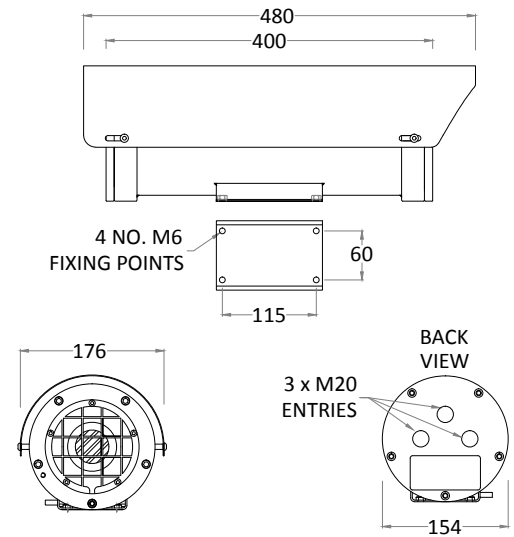
All specifications, dimensions, weights and tolerances are nominal (typical) and Eaton reserve the right to vary all data without prior notice.
No liability is accepted for any consequence of use.

Certifications			
ATEX	II 2 G Ex db (op pr) IIC T4 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	cLC CSA	Ex d IIC T4 (T5 On Request) LC1311396 -60°C ≤T _a ≤ +60°C. CAN CSA-C22.2 No.60079-0:2011 & 60079-1-2012 Certificate: 11396-1S-CSA
IECEx	Ex db (op pr) IIC T4 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	TR CU, EAC	1 Ex db (op pr) IIC T4 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.T'B04.B00587
INMETRO	Ex db (op pr) IIC T4 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 170063X	CCOE	Ex db (op pr) IIC T4 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
LCus C1/Z1	Class 1 Zone 1 A Ex d IIC T4 (T5 On Request) LC13A11396 Gb -60°C ≤T _a ≤ +60°C. UL 60079-0:2009 & 60079-1:2010 Certificate: 11396-1S-UL	CNEX	Ex db (op pr) IIC T4 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
cLCus C1/D1	Class I, Division 1, Groups B, C, D, -60°C ≤T _a ≤ 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)	CERTEX	Ex db (op pr) IIC T4 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

Specifications

Certification part number	1410-TI-50		
Features		Mechanical	
Sun shield	Standard stainless steel 316L mirror finish	Body material	Electro-polished 316L stainless steel on all welded assemblies for maximum corrosion protection
Integral demister	Standard	Fixings material	A4 stainless steel (not including structural fixings)
Telemetry receiver	Integral	Camera station window	Internal AR and external carbon Coated Germanium with protective grill
IP direct fibre out	Optional media converter, simplex singlemode 9/125µm or multimode 50/125µm ,10/100Mb ethernet, IEEE 802.3	Mounting options	Pole or wall (see separate datasheets)
IP over coax	Optional integrated IP ethernet-over-coax converter (must be used with compatible Rx equipment)	Operating temperature	From -60°C to +70°C* (model dependent)
Electrical		Weight	Up to 15 Kg depending on configuration
Supply voltage options	24 VAC	Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)
Power consumption	28W max	Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Electrical connections	Terminal for power, RJ45 for Network		
Cable entry	Three M20 entries located in housing rear flange		
Thermal camera options			
Q1942-BARE 8.3fps		Q1942-BARE-35 8.3fps	
Image sensor	Uncooled Micro bolometer 640x480, pixel size: 17 µm Spectral range: 8-14 µm upto 8.3fps	Image sensor	Uncooled Micro bolometer 640x480, pixel size: 17 µm Spectral range: 8-14 µm upto 8.3fps
Lens	Athermalized, 19 mm, F1.23, Horizontal field of view: 32°	Lens	Athermalized, 35 mm, F1.2, Horizontal field of view: 17°
Streaming	H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles, Motion JPEG. Three H.264 and Motion JPEG streams, Controllable frame rate and bandwidth VBR/CBR H.264	Streaming	H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles, Motion JPEG. Three H.264 and Motion JPEG streams, Controllable frame rate and bandwidth VBR/CBR H.264
Features	Compression, mirroring of images, rotation, multiple palettes, brightness, sharpness, contrast, electronic image stabilization, automatic gain control, exposure zone, max gain, text and image overlay, privacy mask. Analytics - Video Motion Detection, Shock detection	Features	Compression, mirroring of images, rotation, multiple palettes, brightness, sharpness, contrast, electronic image stabilization, automatic gain control, exposure zone, max gain, text and image overlay, privacy mask. Analytics - Video Motion Detection, Shock detection
Standard protocols	IPv4/v6, HTTP, HTTPSa, SSL/TLSa, QoS Layer 3 DiffServ, FTP, CIFS/ SMB, SMTP, Bonjour, UPnP, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, ONVIF Profile S	Standard protocols	IPv4/v6, HTTP, HTTPSa, SSL/TLSa, QoS Layer 3 DiffServ, FTP, CIFS/ SMB, SMTP, Bonjour, UPnP, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, ONVIF Profile S

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

XF40

Housing type

Thermal imaging housing with 50mm germanium window

Code

T

Wiper options

No wiper

Code

N

Video type

IP

Code

I

Day/night module

No D/N camera fitted

Code

N

Thermal core module

Q1942-BARE 8.3fps

Q1942-BARE-35 8.3fps

Code

5

7

Thermal core lens

19mm lens

35mm lens (Q1942 only)

Code

1

3

Video system

IP

Code

I

Supply voltage

24 VAC ±10% 50/60 Hz

24 VDC +/- 10% (-ve Earthed)

24 VDC +/- 10% (-ve isolated from Earth)

Code

1

Camera rotation

Not applicable

Code

N

Transmission type

Standard electrical

Simplex singlemode

9/125µm ethernet

Simplex multimode

50/125µm ethernet

IP over coax

Code

0

3

4

5

Temperature type

T4, -40°C to +70°C*

T4, -40°C to +60°C

T4, -60°C to +40°C

T5, -40°C to +60°C

T5, -40°C to +65°C*

T5, -60°C to +40°C

T6, -40°C to +40°C

T6, -60°C to +40°C

Code

B

2

3

5

D

6

8

9

* Subject to configuration restrictions

Certification

ATEX

IECEX

INMETRO

LCus C1, Z1

cLCus C1, D1

cLC CSA

TR CU, EAC

CCOE

CNEX

CERTEX

Code

A

I

M

U

Z

C

R

D

X

T

Protocol requirements

No control protocol required

Code

N

SF40 TI IP series

Fixed camera station



Overview

The Oxalis SF40 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

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

This datasheet covers the thermal imaging configurations.

Features

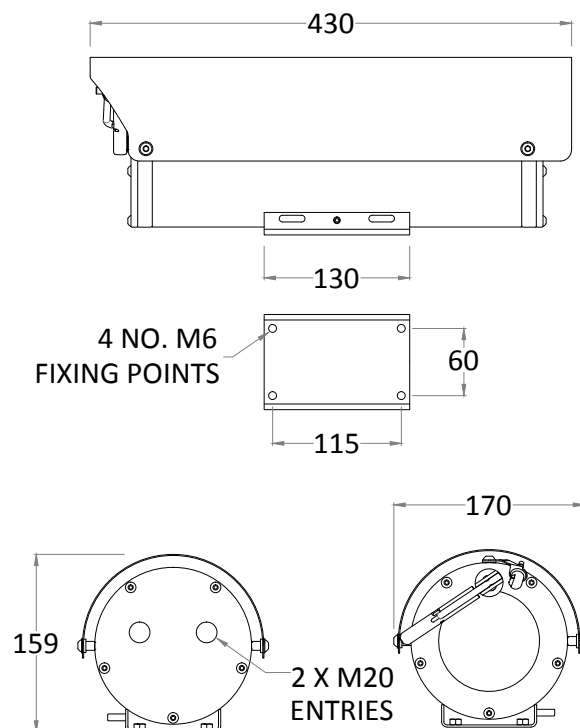
- Electro-polished 316L stainless steel on all welded assemblies
 - Temperature alarm option
 - Compatible with Oxalis SW washer tanks (see separate datasheets)
 - Pole or wall mounting options (see separate datasheets)
 - Supply voltage options 24 VAC 50/60Hz
 - Operating temperature -60°C to +70°C*
 - IP66/67
- *Model dependent

Specifications

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)
Telemetry receiver	Integral
IP direct fibre out	Optional media converter, simplex singlemode 9/125µm or multimode 50/125µm, 10/100Mb ethernet, IEEE 802.3
IP over coax	Optional integrated IP ethernet-over-coax converter (must be used with compatible Rx equipment)
Ingress protection rating	IP66/67
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Electrical	
Supply voltage options	24 VAC, 50/60Hz
Power consumption	37W maximum
Electrical connections	Terminal block for power, RJ45 for network
Cable entry	Two M20 entries located in housing rear flange
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 Ø50 mm
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60° C to +70° C (model dependent)
Weight (Kg)	Up to 9Kg depending on configuration
Thermal camera 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, 25µm pixel size, 7.5Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement

Q1942-BARE 8.3fps		Q1942-BARE-35 8.3fps	
Image sensor	Uncooled Micro bolometer 640x480, pixel size: 17 µm Spectral range: 8-14 µm upto 8.3fps	Image sensor	Uncooled Micro bolometer 640x480, pixel size: 17 µm Spectral range: 8-14 µm upto 8.3fps
Lens	Athermalized, 19 mm, F1.23, Horizontal field of view: 32°	Lens	Athermalized, 35 mm, F1.2, Horizontal field of view: 17°
Streaming	H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles, Motion JPEG. Three H.264 and Motion JPEG streams, Controllable frame rate and bandwidth VBR/CBR H.264	Streaming	H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles, Motion JPEG. Three H.264 and Motion JPEG streams, Controllable frame rate and bandwidth VBR/CBR H.264
Features	Compression, mirroring of images, rotation, multiple palettes, brightness, sharpness, contrast, electronic image stabilization, automatic gain control, exposure zone, max gain, text and image overlay, privacy mask. Analytics - video motion detection, shock detection	Features	Compression, mirroring of images, rotation, multiple palettes, brightness, sharpness, contrast, electronic image stabilization, automatic gain control, exposure zone, max gain, text and image overlay, privacy mask. Analytics - video motion detection, shock detection
Standard protocols	IPv4/v6, HTTP, HTTPSa, SSL/TLSa, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP/TM, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, ONVIF Profile S	Standard protocols	IPv4/v6, HTTP, HTTPSa, SSL/TLSa, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP/TM, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, ONVIF Profile S

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

SF40

Housing type

Thermal imaging housing with 50mm germanium window

Code

H

Wiper options

Integral wiper switched 24VAC for external washer pump
No wiper

Code

E
N

Video type

IP

Code

I

Day/night module

No D/N camera fitted

Code

N

Thermal core module

Q1942-BARE 8.3fps
Q1942-BARE-35 8.3fps

Code

5
7

Thermal core lens

19mm lens
35mm lens (Q1942 ONLY)

Code

1
3

Video system

IP

Code

I

Supply voltage

24 VAC ±10% 50/60 Hz
Special - price on application

Code

1
S

Camera rotation

Not applicable

Code

N

Protocol requirements

Pelco D protocol, baud rate 2400bps
HERNIS™ protocol
Special - price on application

Code

D
H
S

Certification

No Ex certification required

Code

N

Temperature type

-20°C to +70°C
-40°C to +70°C
-60°C to +40°C

Code

A
B
3

Transmission type

Standard electrical
Simplex singlemode
9/125µm ethernet
Simplex multimode
50/125µm ethernet
IP over coax

Code

0
3
4
5

XF60 TI IP series

Explosion proof, fixed
camera station



Overview

The Oxalis XF60 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.

The large format housing allows the installation of custom specified camera, lens and transmission equipment subject to conformity to certification, physical fit and acceptance.

This datasheet covers the thermal imaging configurations.

Features

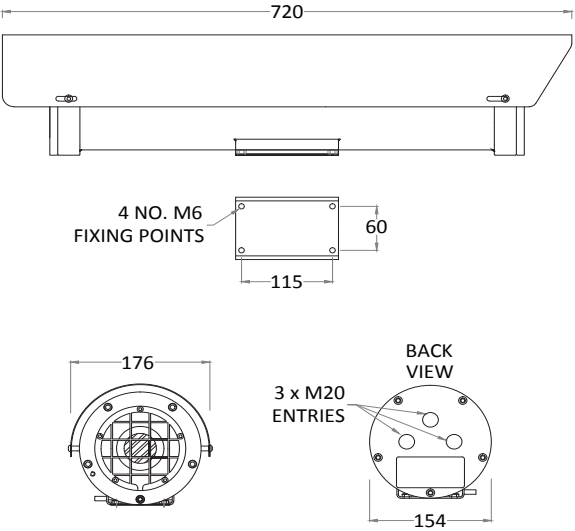
- ATEX and IECEx certified
 - Temperature alarm
 - Electro-polished 316L stainless steel on all welded assemblies
 - Pole or wall mounting options (see separate datasheets)
 - Supply voltage options (24 VAC, 110 or 230 VAC, 50/60Hz)
 - Operating temperature from -60°C to +70°C*
 - IP66/67 (IP68)
- *Model dependent



Certifications

ATEX	II 2 G Ex db (op pr) IIC T4 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	INMETRO	Ex db (op pr) IIC T4 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: UL-BR 17.0063X
IECEx	Ex db (op pr) IIC T4 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	CCOE	Ex db (op pr) IIC T4 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: P529141

General arrangement drawing (all dimensions in mm)



Specifications

Features	Mechanical
Sun shield	Standard stainless steel 316L mirror finish
Integral demister	Standard
Telemetry Receiver	Integral
IP direct fibre out	Optional media converter, simplex singlemode 9/125µm or multimode 50/125µm ,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	37W maximum (65W with low temperature operation)
Electrical connections	Terminal for power, RJ45 for Network
Cable entry	Three M20 entries located in housing rear flange
Thermal Camera Options	
Q1961-TE	
Image sensor	Uncooled Micro bolometer 384x288, pixel size: 17 µm Spectral range: 8-14 µm upto 8.3fps
Lens	Athermalized, 13 mm, F1.0, Horizontal field of view: 28°
Streaming	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles, H.265 (MPEG-H part 2/HEVC) Main Profile Motion JPEG. Three video streams, controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265
Image settings	Contrast, brightness, sharpness, local contrast, exposure zones, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, text and image overlay, polygon privacy mask, electronic image stabilization, multiple color palettes
Resolutions	Sensor is 384x288. Image can be scaled up to 768x576
Standard protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPSc, HTTP/2, TLSd, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMPDHCPv4/v6, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

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

XF60

Housing type

Thermal imaging housing with 50mm germanium window

Code

T

Wiper options

No wiper

Code

N

Video type

IP

Code

I

Day/night module

No D/N camera fitted

Code

N

Thermal core module

Q1961-TE

Code

S

Thermal core lens

13mm lens

Code

7

Video system

IP

Code

I

Camera rotation

Not applicable

Code

N

Supply voltage

24 VAC ±10% 50/60 Hz

110 VAC ±10% 50/60 Hz

230 VAC ±10% 50/60 Hz

Code

1

2

3

Transmission type

Standard electrical

Simplex singlemode

9/125µm ethernet

Simplex multimode

50/125µm ethernet

IP over coax

Duplex singlemode

9/125µm

Duplex multimode

50/125µm

Code

0

3

4

5

6

7

Temperature type

T4, -20°C to +70°C*

T4, -40°C to +70°C*

T4, -60°C to +40°C

Code

A

B

3

*Subject to configuration restrictions

Certification

ATEX

IECEX

INMETRO

CCOE

Code

A

I

M

D

Protocol requirements

No control protocol required

Code

N

SF60 TI IP series

Fixed camera station



Overview

The Oxalis SF60 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

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

The large format housing allows the installation of custom specified camera, lens and transmission equipment subject to physical fit and acceptance.

This datasheet covers the thermal imaging configurations.

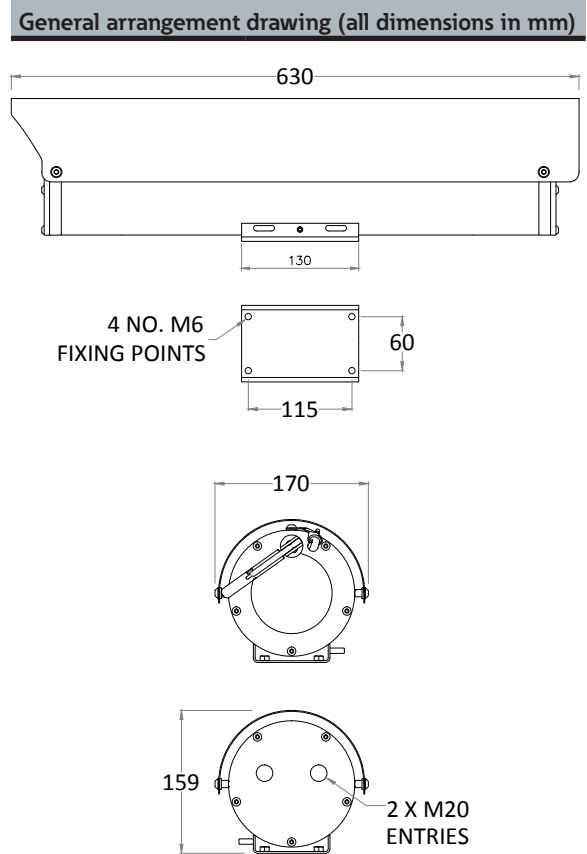
Features

- Electro-polished 316L stainless steel on all welded assemblies
- Temperature alarm option
- Compatible with Oxalis SW washer tanks (see separate datasheets)
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options (24 VAC, 110 or 230 VAC, 50/60Hz)
- Operating temperature from -60°C to +70°C*
- IP66/67

*Model dependent

Specifications	
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)
Telemetry receiver	Integral
Rotation	Continuous pan or 350° rotation (+/- 175° from straight ahead)
IP direct fibre out	Optional media converter, simplex singlemode 9/125µm or multimode 50/125µm ,10/100Mb ethernet, IEEE 802.3
IP over coax	Optional integrated IP ethernet-over-coax converter (must be used with compatible Rx equipment)
Ingress protection rating	IP66/67
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Electrical	
Supply voltage options	24 VAC, 110 or 230 VAC, 50/60Hz
Power consumption	37W maximum (65W with low temperature operation)
Electrical connections	Terminal block for power, RJ45 for network
Cable entry	Two M20 entries located in housing rear flange
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 Ø50mm or Ø90mm
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60° C to +70° C (model dependent)
Weight (Kg)	Up to 13Kg depending on configuration
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, 25µm pixel size, 75Hz NTSC/8.3Hz PAL exportable frame rate, digital detail enhancement

Thermal camera options			
Q1942-BARE 8.3fps		Q1942-BARE-35 8.3fps	
Image sensor	Uncooled Micro bolometer 640x480, pixel size: 17 µm Spectral range: 8-14 µm upto 8.3fps	Image sensor	Uncooled Micro bolometer 640x480, pixel size: 17 µm Spectral range: 8-14 µm upto 8.3fps
Lens	Athermalized, 19 mm, F1.23, Horizontal field of view: 32°	Lens	Athermalized, 35 mm, F1.2, Horizontal field of view: 17°
Streaming	H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles, Motion JPEG. Three H.264 and Motion JPEG streams, Controllable frame rate and bandwidth VBR/CBR H.264	Streaming	H.264 (MPEG-4 Part 10/AVC) Baseline, and Main profiles, Motion JPEG. Three H.264 and Motion JPEG streams, Controllable frame rate and bandwidth VBR/CBR H.264
Features	Compression, mirroring of images, rotation, multiple palettes, brightness, sharpness, contrast, electronic image stabilization, automatic gain control, exposure zone, max gain, text and image overlay, privacy mask. Analytics - video motion detection, shock detection	Features	Compression, mirroring of images, rotation, multiple palettes, brightness, sharpness, contrast, electronic image stabilization, automatic gain control, exposure zone, max gain, text and image overlay, privacy mask. Analytics - video motion detection, shock detection
Standard protocols	IPv4/v6, HTTP, HTTPSa, SSL/TLSa, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP/TM, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, ONVIF Profile S	Standard protocols	IPv4/v6, HTTP, HTTPSa, SSL/TLSa, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP/TM, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, ONVIF Profile S



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

SF60

Housing typeCode

Thermal imaging housing with 50mm germanium windowT

Thermal imaging housing with 90mm germanium windowH

Wiper optionsCode

Integral wiper switched 24VAC for external washer pumpE

No wiperN

Video typeCode

IPI

Day/night moduleCode

No D/N camera fittedN

Thermal core moduleCode

Q1942-BARE 8.3fps5

Q1942-BARE-35 8.3fps7

Custom cameraC

Thermal core lensCode

19mm lens1

35mm lens (Q1942 ONLY)3

Video systemCode

IPI

Transmission typeCode

Standard electrical0

Simplex singlemode9/125µm ethernet3

Simplex multimode50/125µm ethernet4

IP over coax5

Temperature typeCode

-20°C to +70°C*A

-40°C to +70°C*B

-60°C to +40°C3

CertificationCode

No Ex certification requiredN

Protocol requirementsCode

Pelco D protocol, baud rate 2400bpsD

Camera rotationCode

Not applicableN

Supply voltageCode

24 VAC ±10% 50/60 Hz1

110 VAC ±10% 50/60 Hz2

230 VAC ±10% 50/60 Hz3

Special - price on applicationS

SF26 HD IP series

Fixed camera station



Overview

The Oxalis SF26 is a fixed camera housing for use in onshore, offshore, marine and heavy industrial environments.

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

Features

- Electro-polished 316L stainless steel on all welded assemblies
- Pole or wall mounting options (see separate datasheets)
- Supply voltage options 24 VAC
- Operating temperature -60°C to +70°C*
- IP66/67 (IP68)

*Model dependent



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All specifications, dimensions, weights and tolerances are nominal (typical) and Eaton reserve the right to vary all data without prior notice.
No liability is accepted for any consequence of use.

Specifications

Features	
Sun shield	Standard stainless steel 316L mirror finish
Integral wiper	No wiper
Integral demister	Standard
Washer systems	No washer
IP over coax	Optional integrated IP Ethernet-over-coax converter subject to configuration restrictions (must be used with compatible Rx equipment)
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Ingress protection rating	IP66/67, IP68 (1.5m for 24 hours)
Electrical	
Supply voltage options	24 VAC
Power consumption	18W Maximum (45W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Two M20 entries located in housing rear side
Mechanical	
Body material	Electro-polished 316L stainless steel on all welded assemblies
Fixings material	A4 stainless steel
Camera station window	Toughened glass
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60°C to +70°C (model dependent)
Weight (Kg)	Up to 8 Kg depending on configuration
Camera options	
32x XNZ-6320 HP IP camera	
Image sensor	Progressive scan CMOS 1/2.8"
Resolution	1920x1080 @60fps to 320x240
Lens	32x optical 32x digital zoom 4.44-142.6 mm F1.6 to F4.4, horizontal angle of view 61.8° - 2.19°
Min. illumination	Colour : 0.05Lux (1/30sec, F1.6, 50IRE), B/W : 0.005Lux (1/30sec, F1.6, 50IRE)
Streaming	H.264, H.265 MJPEG dual codec, multiple streaming, VBR/CBR
Features	Intelligent video analytics, motion detection, day & night (ICR), WDR (150dB), auto focus, auto Iris, AGC, SDDR, ATW, SSNR III, BLC, DIS, Defog
Standards protocols	ONVIF Profile S, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour

22x zoom 3MP HD IP camera

Image sensor	Progressive scan CMOS 1/2.8"
Resolution	2304 x 1296 @ 30fps
Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 53.74° - 2.96°
Min. illumination	Colour : 0.002Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	Triple streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD, Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

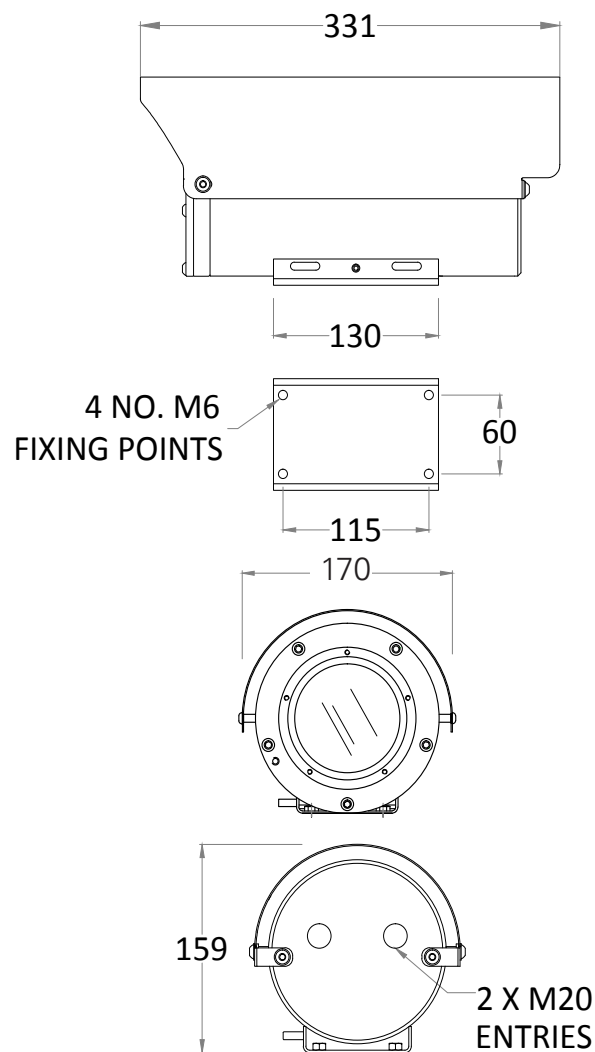
33x zoom 3MP HD IP camera

Image sensor	Progressive scan CMOS 1/2.8"
Resolution	2304 x 1296 @ 60fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 62.93° - 3.67°
Min. illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)
Streaming	Five streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

22x zoom 5MP HD IP camera

Image Sensor	Progressive scan CMOS 1/2.7"
Resolution	2880 x 1620 @ 30fps
Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 55.46° - 3.09°
Min. Illumination	Colour : 0.003Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	Triple streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP

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

SF26													
------	--	--	--	--	--	--	--	--	--	--	--	--	--

Housing type
Visual camera housing

Code
V

Wiper options
No wiper

Code
N

Video type
IP

Code
I

Day/night module
32x zoom 2MP HD IP camera
22x zoom 3MP HD IP camera
33x zoom 3MP HD IP camera
22x zoom 5MP HD IP camera

Code
P
U
V
W

Thermal core module
No thermal core

Code
N

Thermal core lens
No thermal imaging lens

Code
N

Video system
IP

Code
I

Transmission type
Standard electrical
IP over coax

Code
0
5

Temperature type
-20°C to +70°C*
-40°C to +70°C*
-20°C to +60°C
-40°C to +60°C
-60°C to +40°C

Code
A
B
1
2
3

Certification
No Ex certification required

Code
N

Protocol requirements
Pelco D protocol, baud rate 2400bps
No control protocol required

Code
D
N

Camera rotation
Not applicable

Code
N

Supply voltage
24 VAC ±10% 50/60 Hz
Special - price on application

Code
1
S

Transmission type
Standard electrical
IP over coax

Code
0
5

Temperature type
-20°C to +70°C*
-40°C to +70°C*
-20°C to +60°C
-40°C to +60°C
-60°C to +40°C

Code
A
B
1
2
3

Certification
No Ex certification required

Code
N

Protocol requirements
Pelco D protocol, baud rate 2400bps
No control protocol required

Code
D
N

Camera rotation
Not applicable

Code
N

Supply voltage
24 VAC ±10% 50/60 Hz
Special - price on application

Code
1
S

Transmission type
Standard electrical
IP over coax

Code
0
5

Temperature type
-20°C to +70°C*
-40°C to +70°C*
-20°C to +60°C
-40°C to +60°C
-60°C to +40°C

Code
A
B
1
2
3

Certification
No Ex certification required

Code
N

Protocol requirements
Pelco D protocol, baud rate 2400bps
No control protocol required

Code
D
N

Camera rotation
Not applicable

Code
N

Supply voltage
24 VAC ±10% 50/60 Hz
Special - price on application

Code
1
S

SF60 HD IR IP series

Fixed camera station
with smart illuminator



Overview

The Oxalis SF60 is a fixed camera housing with integral SMART illumination, designed for use in onshore, offshore, marine and heavy industrial environments.

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

Features

- Electro-polished 316L stainless steel on all welded assemblies
- Pole or Wall mounting options (see separate datasheets)
- Supply Voltage Options (24 VAC/DC, 110 or 230 VAC, 50/60Hz)
- Operating temperature from -60°C to +70°C
- IP66/67

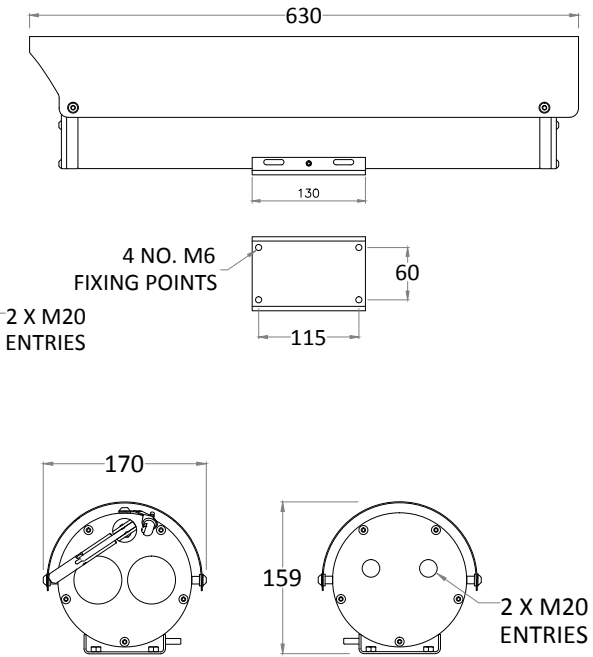
Specifications

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
Integral Illumination	IR Laser Illuminator, internally powered from camera station, range up to 300m, 850nm wavelength
Washer systems	Compatible with Oxalis SW washer tanks (see separate datasheets)
Telemetry receiver	Integral - Pelco D
IP direct fibre out	Optional media converter, Simplex/Duplex Singlemode 9/125µm or Multimode 50/125µm, 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, 110, 230 VAC, 50/60Hz or 24 VDC
Power consumption	49W Maximum (77W with low temperature operation)
Electrical connections	Terminal block for power, data and video specific to camera configuration
Cable entry	Two M20 entries located in housing rear flange
Mechanical	
Body material	Electro-polished 316L stainless steel on all welded assemblies
Fixings material	A4 stainless steel
Camera station window	Toughened glass
Mounting options	Pole or wall (see separate datasheets)
Operating temperature	From -60° C to +70° C (model dependent)
Weight (Kg)	Up to 13Kg depending on configuration
Type approval	DNVGL-CG-0339, 2016 (copper transmission only)
Ingress protection rating	IP66/67

Camera options

33x zoom 3MP HD IP camera:	
Image Sensor	1/2.8" progressive scan CMOS
Resolution	2304 x 1296 @ 60fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 56.11° - 2.67°
Min. Illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)
Streaming	Triple streams in H.265 / H.264
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
Smart	Intrusion, Cross Line, Motion Detection,Object moving

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

SF60

Housing type

Visual camera housing

Code

V

Wiper options

Integral wiper with switched 24VAC for external washer pump

No wiper

Code

E

N

Video type

HD IP system

Code

I

Day/night module

33x zoom 3MP HD IP camera

Code

V

IR Illuminator

300m

Code

S

Thermal core lens

No thermal imaging lens

Code

N

Video system

IP

Code

I

Supply voltage

24 VAC ±10% 50/60 Hz

110 VAC ±10% 50/60 Hz

230 VAC ±10% 50/60 Hz

24 VDC ±10%

Special - price on application

Code

1

2

3

4

S

Transmission type

Standard electrical

Simplex singlemode 9/125µm ethernet

Simplex multimode 50/125µm ethernet

IP over coax

Duplex singlemode 9/125µm

Duplex Multimode 50/125µm

Customer specific fibre transmission device

Code

0

3

4

5

6

7

C

Temperature type

-20°C to +70°C

-40°C to +70°C

-60°C to +40°C

Code

A

B

3

Certification

No Ex certification required

Code

N

Protocol requirements

Pelco D protocol, baud rate 2400bps

Code

D

Camera rotation

Not applicable

Code

N

XFG1 GRP Fixed HD IP Camera

Ex d, weatherproof,
fixed camera station



Overview

The Oxalis XFG fixed camera station has been designed for use in potentially explosive atmospheres and harsh environmental conditions - suitable for use both offshore or onshore, where light weight combined with corrosion resistance is required.

Built upon the proven Eaton MEDC expertise, the housing is made from a UV stable glass reinforced polyester and supplied with a 316L stainless steel mounting bracket ensuring a totally corrosion free product.

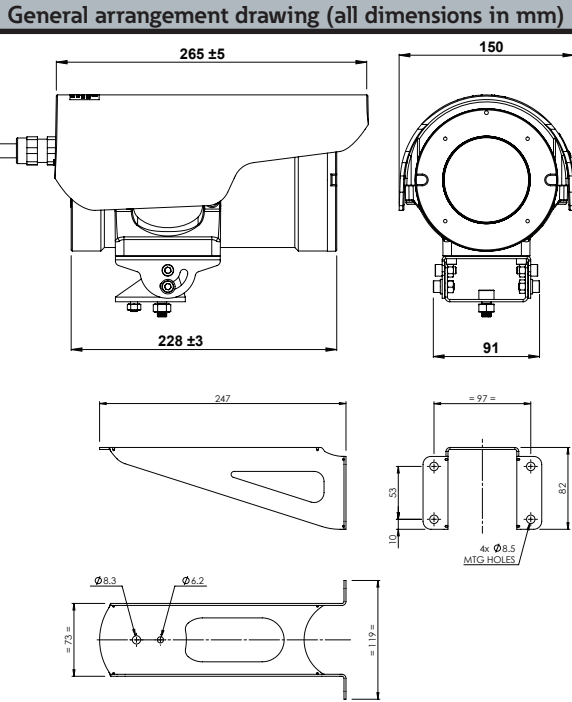
With its multiple voltage options, lens choice, worldwide certification and wide operating temperature, the XFG is suitable for most applications.

Features

- ATEX, IECEx and CCOE, Zone 1, 2, 21 & 22
- Ex db IIB T4/T5/T6, Ex tb IIIC T135/T100/T85°C
- IP66 and IP67
- Certified and operating temperature range from -60° to +70°C
- Corrosion free GRP
- Supply voltage 12 VDC, 24 VDC, 24 VAC, 220 VAC, PoE
- Optional fibre transmission
- Various cable tail lengths



Certifications	
ATEX Ex d	Cert No. ATEX SGS20ATEX0073X Certified to: EN60079-0, EN60079-1, EN60079-31 Ex II 2GD Ex db IIB T4/T5/T6 Gb, Ex tb IIIC T135/T100/T85°C Db
IECEx Ex d	Cert No. IECEx BAS 20.0031X Certified to: IEC60079-0, IEC60079-1, IEC60079-31 Ex db IIB T4/T5/T6 Gb, Ex tb IIIC T135/T100/T85°C Db
CCOE	Cert No. P542322/1 Ex db IIB T4/T5/T6 Gb, Ex tb IIIC T135/T100/T85°C Db



Specifications	
Features	
Body	Flame retardant, UV stable, glass reinforced polyester, 5VA flammability rating
Sun shield	Flame retardant, UV stable, glass reinforced polyester, V0 flammability rating
Camera station window	Toughened glass
Fixings material	316L stainless steel
Integral demister	Standard
IP direct fibre out options	Optional media convertor,simplex/duplex singlemode 9/125µm or multimode 50/125µm, 10/100Mb Ethernet, IEE 802.3
Operating temperature	From -60° to +70°C
Mounting options	Supplied with swivel and wall mounting bracket. Swivel range pan 200°, tilt 15° up, 80° down. (Tilt is interchangeable)
Ingress Protection Rating	IP66, IP67
Weight (kg)	up to 4 kg including sunshield, 6 kg including mounting brackets
Electrical	
Supply voltage options	12VDC, 24VDC, 24VAC, 220 VAC or PoE
Power consumption	12VDC, 24VAC/DC, 13W nominal, (24W @ -20°C, 43W @ -40°C, 63W @ -60°C with low temperature operation). 220VAC 13W nominal (63W @ -20°C, -40°C, -60°C with low temperature operation) POE 10W nominal, (20W @ -20°C, 36W @ -40°C, 52W @ -60°C with low temperature operation)
Cable Entry	Product is supplied with conduit tail, length selectable in order code. Power cables 1mm ≤10m,1.5mm ≤15m.
Camera options	
22x zoom 3MP HD IP camera	
Image sensor	Progressive scan CMOS 1/2.8"
Resolution	2304 x 1296 @ 30fps
Lens	22x optical zoom 5.2~114.4mm F1.5~F3.8, horizontal angle of view 53.74° - 2.96°
Min. illumination	Colour : 0.002Lux (F1.5, AGC ON), B/W 0.001Lux (F1.5, AGC ON)
Streaming	Triple streams in H.264, H.265
Features	AGC, AE, AWB, TDN, DNR, BLC, EIS, WDR, Defog, OSD, Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP.
33x zoom 3MP network camera	
Image Sensor	Progressive scan CMOS 1/2.8"
Resolution	2304 x 1296 @ 60fps
Lens	33x optical zoom 4.5~148.5mm F1.5~F4.0, horizontal angle of view 62.93° - 3.67°
Min. Illumination	Colour : 0.001Lux (F1.5, AGC ON), B/W 0.0005Lux (F1.5, AGC ON)
Streaming	Five streams in H.264, H.265
Features	AGC, AE,AWB,TDN,DNR,BLC,EIS,WDR,Defog,OSD,Day & Night Auto Colour/BW (IR-cut with auto switch)
Standards Protocols	L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP.

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

XFG1														
Housing type Visual camera housing	Code V													
Wiper options No wiper	Code N													
Video type IP	Code I													
Day/night module 22x zoom 3MP HD IP camera 33x zoom 3MP HD IP camera	Code U V													
Thermal core module No thermal core	Code N													
Thermal core lens No thermal imaging lens	Code N													
Video system IP	Code I													
Supply voltage 12VDC +/-10% 24VDC +/-10% 24VAC +/-10% 220Vac +/- 10% POE	Code 7 4 1 8 5													
Camera rotation Not applicable	Code N													
Protocol requirements Not Applicable	Code N													
Certification ATEX IECEX	Code A I													
Temperature type T4/T5/T6 -60 to +70/+55/+40°C T4/T5/T6 -40 to +70/+55/+40° T4/T5/T6 -20 to +70/+55/+40°	Code L P Q													
Transmission type Standard electrical Simplex singlemode 9/125µm Simplex multimode 50/125µm Duplex singlemode 9/125µm Duplex multimode 50/125µm	Code 0 3 4 6 7													
Cable Tail Length 3 metre 5 metre 7 metre 10 metre 15 metre Specify Length	Code 03 05 07 10 15 *S													