RoboEye
Indoor/Outdoor Robotic Camera – PT-RE-1
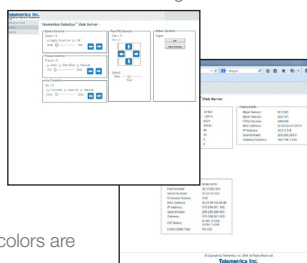
Ceiling mount orientation

Web browser interface
with status monitoring

Standalone upright orientation

*Wiper option available
*Black powder finish comes standard; custom colors are
available for an additional fee

Features:

- » Superior Sony Exmor 2.18 megapixel CMOS sensor*
- » Manual or fully automatic focus (TrueFocus), iris, gain and White balance settings
- » 30X optical zoom lens for extraordinary focal range
- » PTZ servo motors provide stop accuracy of 0.03° and velocity of 0.01 - 90°/second
- » S/N ratio of 50dB and a sensitivity of F8 at 2,000 lux
- » Provides native 1,920 x 1,080 HD-SDI and SD composite video outputs in NTSC and PAL
- » HD and video outputs can be used simultaneously
- » Multiple cameras can be genlocked
- » Automatic gain set-up with a manual override
- » Stores up to 1,000 presets
- » Remote control and access via internal server, Ethernet or RS-232C/422
- » USB port
- » IP65 rated for indoor and outdoor use
- » Integrates with all Telemetrics camera robotics control systems
- » Virtual set ready

* Trademark of Sony

RoboEye (PT-RE-1) is an advanced, fully integrated robotic camera head that delivers HD broadcast quality images. The robotic servo controls use motors of ultra-high position and velocity accuracy. This high accuracy makes RoboEye the perfect choice for use with augmented reality or virtual systems – without any required peripherals. This top notch design satisfies military applications as well as demanding commercial and industrial applications where high reliability and smooth and accurate camera performance are a must. RoboEye's understated, attractive design is also compact, weather proof, and tightly sealed pressure-nitrogen filled capable. RoboEye's network interface allows users to access video and control online, while accommodating Ethernet, USB and serial interfaces. The RoboEye comes ready for use with a universal mounting bracket that allows wall-, ceiling- and shelf-mounted configurations.

Telemetrics
Camera Control Systems

Specifications

Camera Section/Lens

Imaging Device	1/3 Inch CMOS / Progressive Scanning
Total Pixels/Pixel Size Horizontal TV Lines	1952 (H) x 1116 (V) 2.18 Megapixels / 2.8 um (H) x 2.8 um (V) 1000 TVL at center (wide) Avg.
Sensitivity	F8 at 2000lx
Minimum Illumination	Color 0.3lx, F1.4, (1/30, 50IRE, 31.5dB)
S/N	>50 dB
Gain Setup-level	AUTO/MANUAL (0~31.5dB)
Electronic Shutter 1/Shutter	@59.94Hz: 2, 4, 8,15, 30, 60,100,125, 250, 500, 1000, 2000, 4000, 10000 @50Hz: 2, 3, 6, 12, 25, 50,100,125, 250, 500,1000, 2000, 4000, 10000
Image Invert	Flip and or Invert (Auto Invert & Flip supported)
Image Processing Functions	Auto Modes: Full, Shutter Prority, Gain Priority, Iris Priority Manual Controls: White Balance (Auto, Manual, 3200K, 5600K, One Push) Red/Blue Gain* Gamma (0.35-0.55,off)* Knee (Fixed, Auto), Dynamic Noise Reduction (Off, Low, High), Black Level (−100-100) * Chromanance (0-255), Hue - Red/Green/Blue/Yellow/Cyan/Magenta (−10 -10) Saturation - Red/Green/Blue/Yellow/Cyan/Magenta (−30 - 30)
Zoom	30X optical + 2x Digital Zoom (Manual Remote) Horizontal View Angle - Wide (62.9°) Tele (2.2°)
Focus	FW = 4.4 mm / Ft = 132mm (Manual Remote, Auto, One Push)
Iris	F1.4 - F22 (Minimum with 30x Zoom) (Wide) F1.4 - (Tele) F4.6 Manual Remote, Auto

specifications and features subject to change without notice

Interface/Signals

HD-SDI (BNC)	1080/59.94p, 1080/59.94p (A-3G),1080/59.94p (B-3G), 1080/59.94i, 720/59.94p 1080/50p, 1080/50p (A-3G), 1080/50p (B-3G), 1080/50i, 720/50p
Video (BNC)	NTSC, PAL (Letterbox)
Genlock (BNC)	Bilevel or Trilevel
2x Ethernet (RJ45)	Control, Web-Server, Virtual Feedback (10, 100bT)
Serial (DB9F)	RS-232/422
USB (USB-B)	63 W x 65.6 H x 201.2 D

Pan/Tilt

Pan/Tilt Travel	Pan (360º) Tilt (270º)
Velocity Pan/Tilt	0.01-90º/Sec (16bit)
Acceler. Pan/Tilt	45º/Sec
Audible Noise	25 dB (A) Max, IEC Free Field
Stop/Position Accuracy	<0.03º / <0.005º
Tally	Red & Green

General

Power*	DC 12V ± 10% (60 Watts)
Waterproof/Dustproof	IP65 Weather Proof
Operating Temperature	-4º to 108ºF (-20º to 42ºC)
Operating Humidity	90% Non-condensing
Weight	14 lbs (6.4 kg) Head Only
Color	Black Custom Colors Available

*AC-DC adapter included with package

Ordering Information

TM Model Number	Description
PT-RE-1	RE RoboEye PTZF Camera
PT-RE-IU	RE RoboEye Interface Unit
PTO-RE-1-F	RE RoboEye IU Fiber Option
PTO-RE-1-PS	RE Roboeye Pressure Sensor
PT-RE-BKT	RoboEye Universal MTG BKT
PT-RE-WBKT*	RoboEye Wall MTG BKT
PT-RE-IC5	RE RoboEye Interface Cable 5'
PT-RE-IC10	RE RoboEye Interface Cable 10'

*Requires PT-RE-BKT
Cables - Must have one cable per PT-RE-IU interface Box
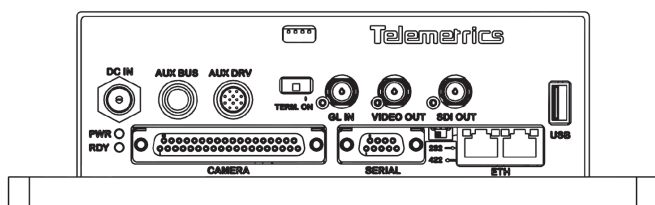
Ordering Information, Outdoor Related Items

TM Model Number	Description
PTO-RE-1-W	RE RoboEye Cam Wiper Option
EWH	Electrical Weather Enclosure
EWHO-RE1	RoboEye Weather Enclosure Kit
EWHO-C1D1I	Electrical Weather Enclosure Class 1 Division 2

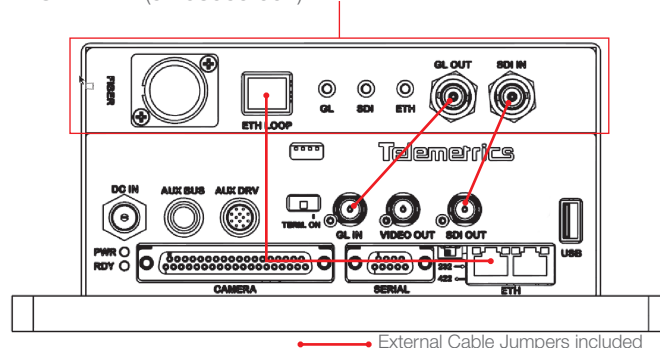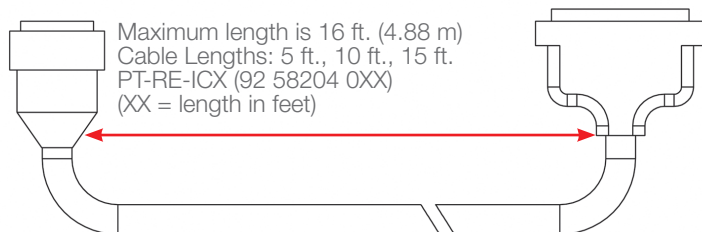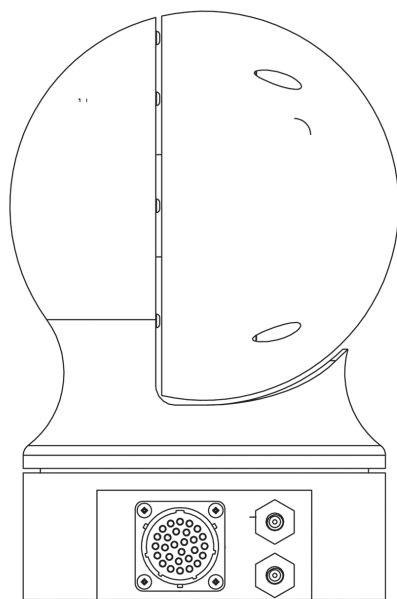# Telemetrics
Camera Control Systems

RoboEye Interface Unit
PT-RE-IU (92 58569 000)

RoboEye Interface Unit with Optical Fiber Option
PTO-RE-1-F (92 58569 001)

External Cable Jumpers included

Fiber Base Station: FTS-BS
(92 57072 000)
1 for every 4 modules
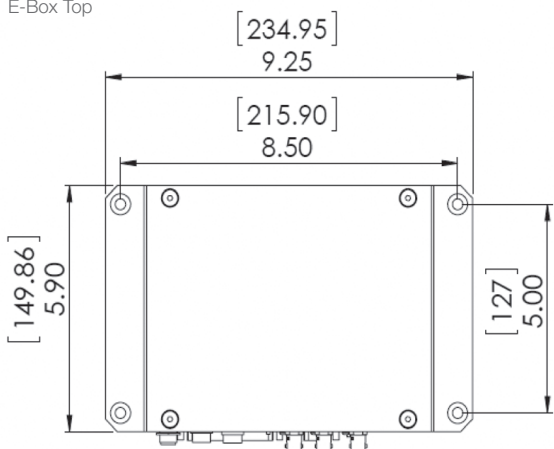
Fiber Module: FTS-M-VCG
(92 57073 200)
1 module per head

Fiber Type: Single-Mode Duplex
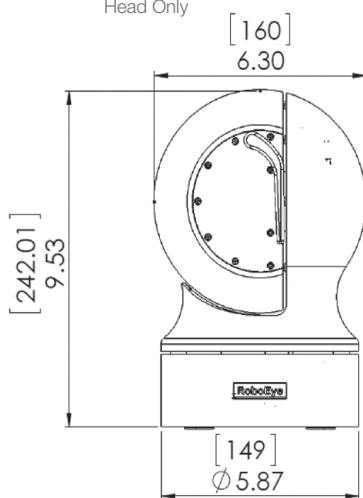Fiber Optic Cable Connectors: LC
Maximum Length: 1 km

Head to Box Cable and Limitations

Maximum length is 16 ft. (4.88 m)
Cable Lengths: 5 ft., 10 ft., 15 ft.
PT-RE-ICX (92 58204 0XX)
(XX = length in feet)

Telemetrics
Camera Control Systems

Dimensions, Head and Mounting Patterns

E-Box Top

[234.95]
9.25

[215.90]
8.50

[149.86]
5.90

[127]
5.00

E-Box Front

[185.42]
7.30

[72.39]
2.85

E-Box with Fiber

[185.42]
7.30

[102.87]
4.05
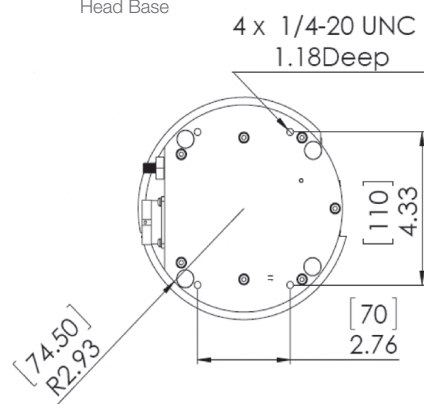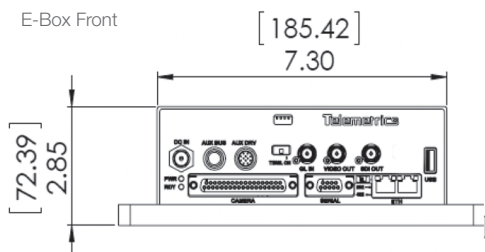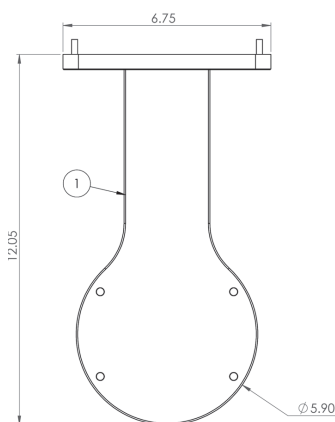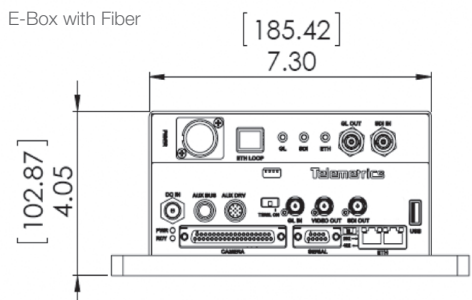
Universal Adapter Plate

[12.70]
0.50

Mounting Holes
4 x ⌀ 0.22 THRU ALL
⌵ ⌀ 0.44 X 90°
Head Mounting Holes

[148.59]
5.85

[134.62]
5.30

[152.40]
6.00

[170.18]
6.70

Head Only

[160]
6.30

[242.01]
9.53

[149]
⌀ 5.87

Head Base

4 x 1/4-20 UNC
1.18Deep

[110]
4.33

[74.50]
R2.93

[70]
2.76

Wall Mount

6.75

12.05

1

⌀ 5.90

6.00

5.30

5.85

EWH Dimensions

[338.2mm] 13.31in

[407.6mm] 16.05in

1/8" SCHRADER VALVE

[63.0mm] 2.48in

[166.8mm] 6.57in

[79.4mm] 3.13in

[47.6mm] 1.88in

CABLE ⌀ RANGE:
0, 0.138-0.650in
[0, 3.5-16.5mm]

[254.0mm] 10.00in

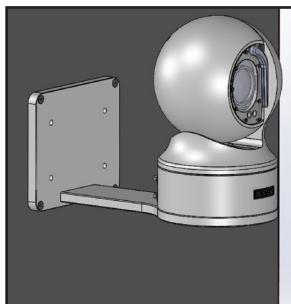4x ⌀ 0.31in [8.0mm] THRU

[374.6mm] 14.75in
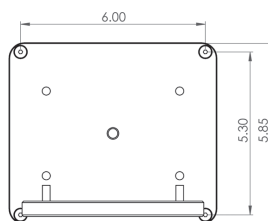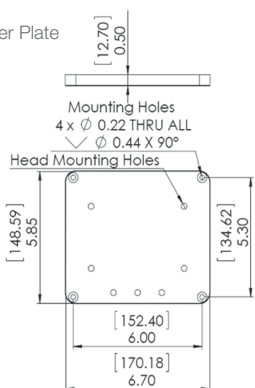
MOUNTING HOLES
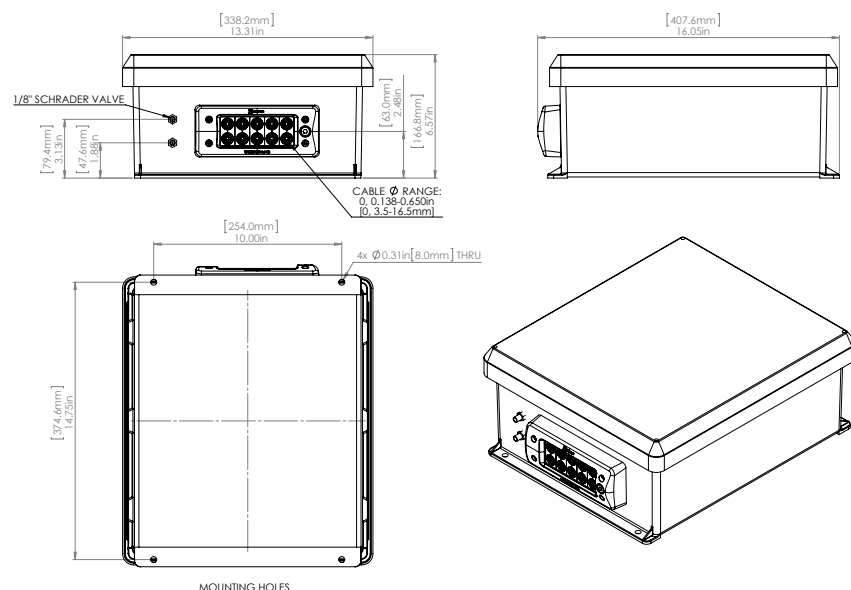
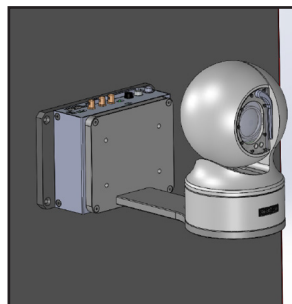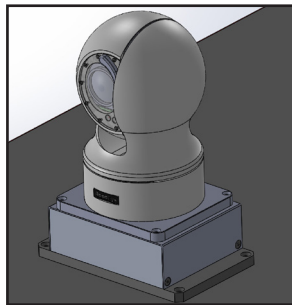## Mounting Options

Desktop or Shelf
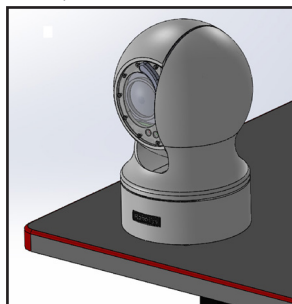
Wall Mount

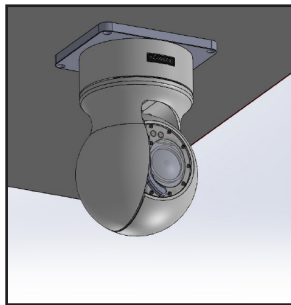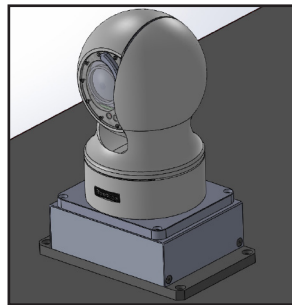Wall Mount with E-Box

Wall Top or Tripod

Ceiling

Ceiling, Wall Top, Tripod with E-Box

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Camera Control Systems