# **High-Speed Positioning System**

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- ► Pans up to 100° per second, 360° continuous rotation
- ▶ Tilts up to 40° per second, -90° to +40° range
- Choice of Dinion<sup>XF</sup> Color or Dinion 2X Day/Night cameras and motorized zoom lens combinations
- ▶ IP 66 rated, tough, attractive casing with up to 20 kg balanced load
- ▶ Optional Bosch AEGIS UFLED Infrared Illuminator assembly attaches directly to the High-Speed Positioning System for operation in dark environments

The Bosch High-Speed Positioning System (HSPS) is a complete solution that is high on quality and performance. It can pan 360° continuously at speeds of up to 100° per second. An extensive range of options lets you tailor the system to your specific requirements. For example, the HSPS offers a variety of Dinion<sup>XF</sup> and Dinion 2X cameras and lens combinations, and the system can be ordered with two Bosch AEGIS UFLED Infrared Illuminators for operation in dark environments.

Autopan and patrol functions are accurate to within 0.02°, with text labels assigned to presets for added convenience. Automatic lens scaling, which keeps zoom and speed synchronized, ensures smooth video pictures throughout pan and tilt movement. A completely self-contained unit, the High-Speed Positioning System is easy to install and maintain. Multi-protocol capabilities, including Bilinx and Biphase, also simplify connections. The tough, protective casing can support a 20 kg balanced load and is IP66-rated – ideal for weathering the outdoor conditions common in traffic and industrial applications. All units have a sunshield and an integrated wiper. The wiper is available with an optional washer.

### High-Speed Pan/Tilt with Infrared Illumination

The IR 360 version of the High-Speed Positioning System comes with a bracket and two Bosch AEGIS UFLED Infrared Illuminators, without the need for rotating cables. The IR 360 system features two local alarm inputs, one input for synchronizing the infrared lighting and one relay output for an intelligent local alarm.

# **System overview**

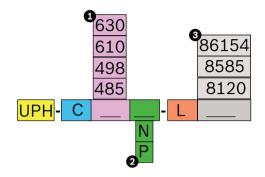
### **Modular Design**

The High-Speed Positioning System is based on four modules: the camera and lens sled assembly, the Main Pan/Tilt unit including the base power supply, the optional mounting hardware and the optional illuminators.

The modular design allows you to customize an HSPS to fit your specific application. To build an HSPS, select one option from **Modules A** and **B**. In addition, you may further customize your HSPS by selecting an optional mounting solution from **Module C** and two optional illuminators from **Module D**.

#### Module A: Camera and Lens Combination

Choose from a selection of Bosch Dinion cameras and lenses. This module comes pre-assembled and attached to a sled that is installed inside the HSPS housing. Use this ordering chart to construct the Camera/Lens combination:



#### 1 Camera

485	LTC 0485 Dinion <sup>XF</sup> Color Camera, 1/3 in.
498	LTC 0498 Dinion 2X Day/Night Camera, 1/3 in.
610	LTC 0610 Dinion <sup>XF</sup> Color Camera, 1/2 in.
630	LTC 0630 Dinion 2X Day/Night Camera, 1/2 in.

#### 2 Video Format

N	NTSC	
Р	PAL	

#### 3 Lens

8120	8-120 mm motorized zoom lens
8585	8.5-85 mm IR-corrected motorized zoom lens
86154	8.6-154 mm IR-corrected motorized zoom lens

Module B: Pan/Tilt System with Power Supply Choose a main pan/tilt system and power supply combination. The Standard System contains a high-performance pan/tilt head, camera housing with an optional integrated wiper, and a telemetry receiver. The IR 360 System contains all the Standard System features plus a bracket assembly for two (2) illuminators.

Option	Description	
UPH-HD-230	<ul><li>Standard System</li><li>230 VAC, 50 HZ Power Supply</li></ul>	
UPH-HWD-230	<ul><li>Standard System</li><li>Wiper</li><li>230 VAC, 50 HZ Power Supply</li></ul>	
UPH-HWD-120	<ul><li>Standard System</li><li>Wiper</li><li>120 VAC, 60 HZ Power Supply</li></ul>	
UPH-HD-24	Standard System	

	<ul> <li>24 VAC, 50/60 HZ Power Supply</li> </ul>
UPH-HWD-24	<ul><li>Standard System</li><li>Wiper</li><li>24 VAC, 50/60 HZ Power Supply</li></ul>
UPH-HWDIR-24	<ul><li>IR 360 System</li><li>Wiper</li><li>24 VAC, 50/60 Hz Power Supply</li></ul>

#### **Module C: Mounts**

Choose an optional mounting solution for the Standard or for the IR 360 System.

Option	Description
MTC-PUPH	Top of pole mount
MTC-WUPH	Wall mount
MTC-CORN-W	Corner adapter for wall mount
MTC-POLE-W	Side of pole adapter for wall mount

#### Module D: Illuminators

Choose two (2) optional Bosch AEGIS UFLED Intelligent Infrared Illuminators. 1, 2, 3

Suggested Models	Description
UFLED10-8BD	10°, 850 nm
UFLED20-8BD	20°, 850 nm
UFLED30-8BD	30°, 850 nm

<sup>1.</sup> The IR Illuminator option is available only with the UPH-HWDIR-24 (IR 360 Main Pan/Tilt System).

Performance characteristics will vary. See the UFLED datasheet for illumination distances.

## **Functions**

#### Multi-protocol

The High-Speed Positioning System operates with Bosch hardware platforms – Divar, DiBos, Allegiant – and is fully compatible with control protocols such as Biphase, Bilinx, Pelco-D, and third party protocols on RS-485. Biphase allows control of pan, tilt, zoom, focus, and the wiper / washer. Bilinx offers the same functionality as Biphase, with additional communication capability for configuring Dinion camera settings.

# High-Speed Pan/Tilt with Automatic Scaling

The unit can reach a very fast panning speed of 100° per second with 360° continuous panning in manual mode. The HSPS can achieve tilt speeds of 40° per second in manual mode. It also offers ample scope for changing the horizontal view, with movement ranging between -90° below and +40° above the horizon. To ensure smooth, clear pictures during rapid movement, automatic scaling synchronizes the pan/tilt speed to the amount of zoom.

You may select two of the same or two different illuminators.

<sup>3. 940</sup> nm (covert) and White Light (visible) wavelength options also compatible

# Dinion<sup>XF</sup>- and Dinion 2X-Dynamic Cameras

The Bosch-High Speed Positioning System comes with a choice of 1/3-inch or 1/2-inch Dinion<sup>XF</sup> Color or Dinion 2X Day/Night CCDs with 540 TVL resolution, and outstanding sensitivity. The Dinion cameras deliver the highest possible image quality even in the most difficult lighting conditions.

Using 2X-Dynamic technology, pixel-by-pixel analysis provides the user with the most detailed information. Turn on SmartBLC to automatically compensate the image without the need for complicated set-up or compromising dynamic range.

## XF-Dynamic

The highly accurate 15-bit (Dinion<sup>XF</sup> cameras) or 20-bit (Dinion 2X) digital signal is automatically processed to optimally capture the detail in both the high and low light areas of the scene simultaneously, maximizing the information visible in the picture.

#### NightSense and SensUp

Dinion<sup>XF</sup> Color cameras feature NightSense which increases sensitivity by 9 dB in monochrome mode. NightSense can be automatically activated in low light situations, or remotely using Bilinx.

Dinion<sup>XF</sup> and Dinion 2X Day/Night cameras make optimal use of the available lighting by utilizing the built-in SensUp feature. By increasing the integration time on the CCD up to 10 times, the effective sensitivity is dramatically enhanced. This is especially useful when relying only on moonlight for illumination.

#### **Default Shutter**

When viewing moving objects a fast shutter speed is required. When using a fast shutter speed the lens opening or gain control needs to be increased to maintain the video signal. The camera sensitivity is limited by the fast shutter speed. The default shutter setting offers the best of all worlds, fast shutter speed as long as there is sufficient light, however as the light level falls, when other adjustments have been exhausted, the shutter reverts to the standard setting maintaining the cameras excellent sensitivity.

## **Auto Black**

The automatic black level feature enhances contrast by compensating for reduced contrast (i.e. glare, fog, mist).

### **Programmable Modes**

Dinion cameras support three independent operating modes. The three modes are preprogrammed for typical applications, but are fully programmable for individual situations. Switching between modes is easy via Bilinx or the external alarm input

## Infrared Illumination

The Bosch AEGIS UFLED, the world's first Intelligent-infrared illuminator, combines innovations in infrared technology and design to deliver absolute performance in night vision surveillance.

Constant Light technology compensates for LED degradation, a natural occurrence with all LED-based illuminators, to deliver a constant level of lighting performance throughout the life of the illuminator. Powered by award-winning 3D-Diffuser technology, Bosch AEGIS UFLED delivers Even-Illumination which lights the foreground and background of the scene eliminating hotspots and underexposure.

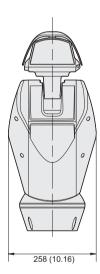
### **Certifications and approvals**

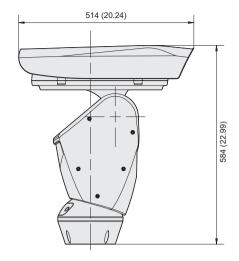
Safety	acc. to EN 60950 (CE), UL
Immunity	acc. to EN 50130-4 (CE)
	acc. to EN 55022 Class B (CE)
Emission	acc. to EN 61000-3-2 (CE)
	acc. to EN 61000-3-3 (CE)
Water/dust protection	IP 66 acc. to EN 60529

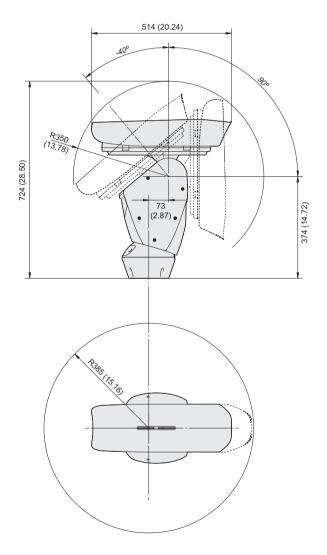
## Installation/configuration notes

For more information on Dinion cameras (e.g. LTC 0498) and motorized zoom lenses (e.g. LTC 3783/51), please refer to their specific product datasheets.

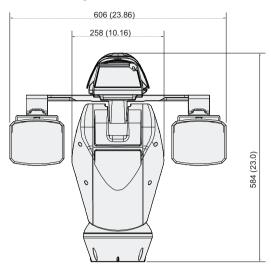
#### **HSPS Standard System Dimensions**



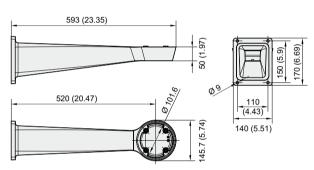




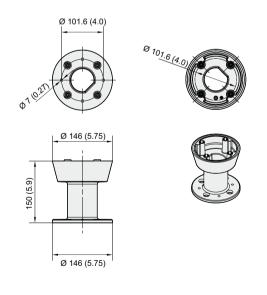
# **HSPS IR 360 System Dimensions**



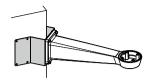
# MTC-WUPH

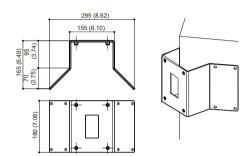


# MTC-PUPH (top of pole)

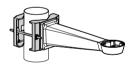


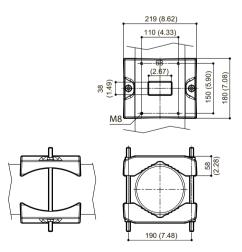
# MTC-CORN-W



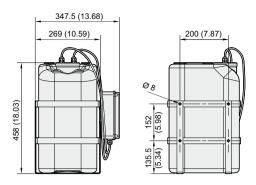


# MTC-POLE-W (side of pole)





# **HAC-WAS05**



Dimensions-mm (in.)

# Parts included

Quantit y	Component		
1	Main Pan/Tilt System		
1	Base unit with power supply		
1	Pre-assembled Bosch Dinion $^{\! \rm XF}$ Color or Dinion 2X Day/Night camera and motorized zoom lens assembly		
1	Mounting kit (optional)		
1	Illuminator bracket assembly (optional)		
2	Bosch AEGIS UFLED Infrared Illuminators (optional)		
1	Serial cable		
1	Serial adapter		
1	Installation manual		
1	Set of mounting accessories		
	4 mm Allen wrench		
	Bracket with fixing screws		
	• Cable ties		
	• Tube		
	• Label		

# **Technical specifications**

# **High-Speed Positioning System**

# **Electrical**

Input Voltage	
Standard System	24 VAC
• IR 360 System	24 VAC
Power Draw (max.)	
Standard System	5 A
• IR 360 System	8 A
Input Frequency	50/60 Hz

Integrated Housing Input	Thermostat heater, 2	24 VAC, 20 W max.	
Camera Input	12 VDC, 800 mA		
Lens Input	+6 to +15 VDC, 200	mA	
Wiper (optional) Input	24 VAC, 400 mA	24 VAC, 400 mA	
Illuminator (optional) Input	24 VAC, 2 A + 2 A ma	ax.	
Tour Control	Autopan; Preset; Pat	rol	
Presets	250 selectable (max	. 99 via keyboard)	
Preset / Area Names	20-character string		
Preset Accuracy	0.02°		
Data Set-up	Flash memory		
Serial	RS-232, Sub-D for fi	rmware upgrade	
Protocols		Bilinx, Biphase, Pelco-D, and third party protocols on RS-485	
Supported Platforms	DiBos, Divar, Allegia	nt	
Max. Addressable Units	Bilinx/Biphase: 998 (dipswitch setting) Pelco-D: 255 (dipswitch setting)		
Firmware Upgrades	RS-232 interface		
Configuration Modes	Via PC or OSD		
Configuration Interface	RS-485		
Mechanical			
Dimensions (H x W x D)	584 x 258 x 514 mm (23.0 x 10.2 x 20.2 in.)		
Weight	Approx. 14 kg (31 lb)		
Mounting	Top mount (OTT)		
Color	Light grey (RAL 703	5)	
Material	Die cast and extruded aluminum, ABS		
Rotation			
Horizontal	360º continuous		
Vertical	-90° to +40°		
Speed	Manual	Patrol / Autopan	
Horizontal (pan)			
Standard System	0.1° to 100°/s	0.1º to 100º/s	
IR 360 System	0.1° to 40°/s	0.1º to 40º/s	
Vertical (tilt)			
Standard System	0.1° to 40°/s	0.1º to 30º/s	
IR 360 System	0.1° to 30°/s	0.1º to 30º/s	
Static / Dynamic Torque			
Horizontal	20 Nm		

Vertical	20 Nm	
Transmission	Toothed belt	
Environmental		
Operating Temperature	-20 °C to +50 °C (-4 °F to +122 °F)	
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)	
Humidity	<90% relative humidity (non-condensing)	
Enclosure Protection	IP 66	

# Camera Speficiations UPH-C485 Series

Camera Model	LTC 0485 Dinion <sup>XF</sup> Color, 1/3-inch Digital CCD Camera		
Active Pixels			
NTSC	768 H x 492 V		
PAL	752 H x 582 V		

# Sensitivity (3200 k)

Sensitivity (3200 k)				
2.4 lux (0.24 fc)				
0.59 lux / 0.24 lux (NightSense) (0.059 fc / 0.024 fc (NightSense))				
0.24 lux / 0.10 lux (NightSense) (0.024 fc / 0.01 fc (NightSense))				
0.024 lux / 0.010 lux (NightSense) (0.0024 fc / 0.0010 fc (NightSense))				
540 TVL				
> 50 dB				
1 Vpp, 75 Ohm				
Y: 1 Vpp / C: 0.3 Vpp				
Internal, Line Lock, HV-lock and genlock (Burst lock) selectable				
Auto (1/60 [1/50] to 1/500000), fixed, flickerless, default				
Off, automatic continuous up to 10x				
On, off selectable				
32x dynamic range enhancement				
Auto, off selectable				
Sharpness enhancement level selectable				
Off, area and level selectable				

Gain	Auto (maximum level selectable to 28 dB) or fixed level selectable			
White Balance	ATW (2500–10000 K), AWB hold, manual WB selectable  Four (4) area, sensitivity selectable			
VMD				
Alarm Output	VMD or Bilinx			
Alarm Input (TTL)	Profile switching, +5 V nominal, +40 VDC max.			
Alarm Output Relay	Max. 30 VAC or +40 VDC, max. 0.5 A continuous, 10 VA			
External Synchronal Input	75 Ohm or High Impedance selectable			
Cable Compensation	Up to 1000 m (3000 ft) coax without external amplifiers (automatic set-up in combination with coaxial communication)			
Camera ID	16-character editable string, position selectable			
Remote Control	Bi-directional coaxial communication			

<sup>4.</sup> F1.2, 89% reflection, SensUp Off

# **UPH-C498 Series**

Camera Model	LTC 0498 Dinion 2X Day/Night, 1/3-inch Digital CCD Camera
Active Pixels	
NTSC	768 H x 494 V
PAL	752 H x 582 V

# Sensitivity (3200 K, scene reflectivity 89%, F1.2)

	Full video (100 IRE)		Usable picture (50 IRE)	Usable picture (30 IRE)	
Color	2.4 lx (0.24 fc)		0.59 lx (0.059 fc)	0.24 lx (0.024 fc)	
Color + SensUp 10x	0.24 lx (0.024 fc)		0.059 lx (0.0059 fc)	0.024 lx (0.0024 fc)	
Monochrome	-		0.08 lx (0.008 fc)	0.038 lx (0.0038 fc)	
Monochrome + SensUp 10x	-		0.008 lx (0.0008 fc)	0.0038 lx (0.00038 fc)	
Horizontal Resolution		540 TV	540 TVL		
Signal-to-Noise Patio		>50 dB	>50 dB		

Horizontal Resolution	540 TVL
Signal-to-Noise Ratio	>50 dB
Video Output	Composite video 1 Vpp, 75 ohm
Synchronization	Internal, Line Lock, HV-lock and Genlock (Burst lock) selectable
Shutter	Auto (1/50 [1/60] to 1/10000) selectable Auto (1/50 [1/60] to 1/50000) automatic flickerless, fixed selectable
SensUp	Adjustable from Off up to 10x

Day/Night	Color, Mono, Auto	
Auto Black	Automatic continuous, Off	
Dynamic Engine	XF-Dynamic, 2X-Dynamic, SmartBLC	
Dynamic Range	120 dB (20-bit image processing)	
Dynamic Noise Reduction	Auto, On/off selectable	
Sharpness	Sharpness enhancement level selectable	
SmartBLC	On/Off	
AGC	AGC On/Off (0 dB) selectable	
Peak White Invert	On/Off	
White Balance	ATW, ATWhold and manual (2500–10000 K)	
Alarm Output	VMD or Bilinx	
Alarm Input (TTL)	Profile switching, +3.3 V nominal, +40 VDC max.	
Alarm Output Relay	30 VAC or +40 VDC, max. 0.5 A continuous, 10 VA	
External Synchronization Input	75 Ohm or High Impedance selectable	
Cable Compensation	Up to 1000 m (3000 ft) coax without external amplifiers (automatic set-up in combination with Bilinx coaxial communication)	
Camera ID	17-character editable string, position selectable	
Test Pattern Generator	Color bars 100%, Grayscale 11-step, Sawtooth 2H, Checker board, Cross hatch, UV plane	
Modes	Six (6) preset programmable modes	
Remote Control	Bilinx coaxial bi-directional communication	
Video Motion Detection	One area, fully programmable	
Controls	OSD with soft-key operation (multi-lingual)	

# **UPH-C610 Series**

Camera Model	LTC 0610 Dinion <sup>XF</sup> Color, 1/2-inch Digital CCD Camera
Active Pixels	
NTSC	768 H x 492 V
PAL	752 H x 582 V
Sensitivity (3200 k)	
Sensitivity (full video) <sup>5</sup>	1.4 lx (0.14 fc)
Sensitivity 50 IRE <sup>5</sup>	0.35 lux / 0.14 lux (NightSense) (0.035 fc / 0.014 fc (NightSense))

Minimum Illumination <sup>5</sup>	0.18 lux / 0.08 lux (NightSense) (0.018 fc / 0.008 fc (NightSense))		
Minimum Illumination with SensUp	0.018 lux / 0.008 lux (NightSense) (0.0018 fc / 0.0008 fc (NightSense))		
Horizontal Resolution	540 TVL		
Signal-to-Noise- Ratio	> 50dB		
Video Output	1Vpp, 75 Ohm		
Y/C Output	Y: 1 Vpp / C: 0.3 Vpp		
Synchronization	Internal, Line Lock, HV-lock and Genlock (Burst lock) selectable		
Shutter	Auto (1/60 [1/50] to 1/500000), fixed, flickerless, default		
Night Sense	Auto, Forced, Off		
SensUp	Off, automatic continuous up to 10x		
Auto Black	On/Off selectable		
Dynamic Range	32x dynamic range enhancement		
Dynamic Noise Reduction	Auto, Off selectable		
Contour	Sharpness enhancement level selectable		
BLC	Off, area and level selectable		
Gain	Auto (maximum level selectable to 28 dB) or fixed level selectable		
White Balance	ATW (2500–10000 K), AWB hold, manual WB selectable		
VMD	Four (4) area, sensitivity selectable		
Alarm Output	VMD or Bilinx		
Alarm Input (TTL)	Profile switching, +5 V nominal, +40 VDC max.		
Alarm Output Relay	Max. 30 VAC or +40 VDC, max. 0.5 A continuous, 10 VA		
External Synchronal Input	75 Ohm or High Impedance selectable		
Cable Compensation	Up to 1000 m (3000 ft) coax without external amplifiers (automatic setup in combination with coaxial communication)		
Camera ID	16-character editable string, position selectable		
Remote Control	Bi-directional coaxial communication		

# **UPH-C630 Series**

Camera Model	LTC 0630 Dinion 2X Day/Night, 1/2-inch Digital CCD Camera
Active Pixels	

NTSC	768 H x 494 V
PAL	752 H x 582 V

# **Sensitivity** (3200 K, scene reflectivity 89%, F1.2)

	Full video (100 IRE)	Usable picture (50 IRE)	Usable picture (30 IRE)
Color	1.4 lx (0.14 fc)	0.31 lx (0.031 fc)	0.18 lx (0.018 fc)
Color + SensUp 10x	0.14 lx (0.014 fc)	0.031 lx (0.0031 fc)	0.018 lx (0.0018 fc)
Monochrome	-	0.052 lx (0.0052 fc)	0.024 lx (0.0024 fc)
Monochrome + SensUp 10x	-	0.0052 lx (0.00052 fc)	0.0024 lx (0.00024 fc)

		(0.0052 fc)	(0.0024 fc)
Monochrome - + SensUp 10x		0.0052 lx (0.00052 fc)	0.0024 lx (0.00024 fc)
Horizontal Resolution	540 T\	/L	
Signal-to-Noise Ratio	>50 dE	3	
Video Output	Compo	osite video 1 Vpp, 75 ohm	
Synchronization		al, Line Lock, HV-lock and Genlock lock) selectable	
Shutter	Auto (1/50 [1/60] to 1/10000) selectable Auto (1/50 [1/60] to 1/50000) automatic flickerless, fixed selectable		
SensUp	Adjustable from Off up to 10x		
Day/Night	Color, Mono, Auto		
Auto Black	Automatic continuous, Off		
Dynamic Engine	XF-Dynamic, SmartBLC		
Dynamic Range	96 dB (16-bit image processing)		
Dynamic Noise Reduction	Auto, On/Off selectable		
Sharpness	Sharpr	Sharpness enhancement level selectable	
SmartBLC	On/Off		
AGC	AGC On/OffOff (0 dB) selectable		electable
Peak White Invert	On/Off		
White Balance	ATW, ATWhold and manual (2500–10000 K)		
Alarm Output	VMD or Bilinx		
Alarm Input (TTL)	Profile switching, +3.3 V nominal, +40 VDC max.		
Alarm Output Relay	30 VAC or +40 VDC, max. 0.5 A continuous, 10 VA		
External Synchronization Input	75 Ohm or High Impedance selectable		

Cable Compensation	Up to 1000 m (3000 ft) coax without external amplifiers (automatic set-up in combination with Bilinx coaxial communication)
Camera ID	17-character editable string, position selectable
Test Pattern Generator	Color bars 100%, Greyscale 11-step, Sawtooth 2H, Checker board, Cross hatch, UV plane
Modes	Six (6) preset programmable modes
Remote Control	Bilinx coaxial bi-directional communication
Video Motion Detection	One (1) area, fully programmable
Controls	OSD with soft-key operation (multi-lingual)

# **Lens Specifications**

Model L8585 (LTC 3783/51)		
10x optical	f=8.5 (wide) to 85.0 mm (tele), F1.6	
Angle of view (H)	31.3° (wide) to 3.3° (tele)	
Model L8120 (LTC 3293/30)		
15x optical	f=8.0 (wide) to 120.0 mm (tele), F1.6	
Angle of view (H)	32.5° (wide) to 2.3° (tele)	
M. J. I. O. O. F. A. (1 TO 0700 /F	41	

#### Model L86154 (LTC 3793/51)

18x optical	f=8.6 (wide) to 154.0 mm (tele), F2.5
Angle of view (H)	30.5° (wide) to 1.82° (tele)

# **AEGIS UFLED Illuminator Specifications**

LEDs	High-efficiency LED array with current limited integral power circuit	
Number of LEDs	18 high-efficiency surface mount LEDs	
Beam Patterns	10°, 20°, or 30°	
Wavelength	850 nm	
Power Draw	26 to 45 W (45 W max. power). Power consumption will vary over time due to the infrared illuminator's optical output control which compensates for LED degradation and ambient temperature fluctuations.	
Input Voltage	12 to 40 VDC or 24 VAC ±30%	
Temperature Range	$-50^{\circ}\text{C}$ to $+50^{\circ}\text{C}$ (-58°F to +122°F) max. on full power	
Environment	IP67	
Construction	Robust, aluminum construction with acrylic front fascia	
Weight	1.4 kg (3.1 lb)	

Dimensions (Single Illuminator)	152 x 188 x 115 mm (6.0 x 7.4 x 4.5 in.)
Color	Black anodized heat sink with black front fascia
Power Cable	Supplied with IP67 power connector and 5 m (16.4 ft) of connecting lead.
Bracket	Wall mount U-bracket supplied

## **IR Performance Ranges**

Model Combination	Beam Pattern	Achievable Distance <sup>6</sup>
UFLED10-8BD UFLED10-8BD	10° 10°	267 m (876 ft)
UFLED10-8BD UFLED20-8BD	10° 20°	230 m (755 ft)
UFLED10-8BD UFLED30-8BD	10° 30°	218 m (715 ft)
UFLED20-8BD UFLED20-8BD	20° 20°	180 m (590 ft)
UFLED20-8BD UFLED30-8BD	20° 30°	168 m (551 ft)
UFLED30-8BD UFLED30-8BD	30° 30°	132 m (433 ft)

<sup>6.</sup> Actual illumination distance achieved is dependent on camera and lens characteristics.

# **Ordering information**

# UPH-C485N-L8120 Camera/Lens Assembly

LTC 0485 Dinion<sup>XF</sup> 1/3 in. NTSC color camera with an LTC 3293/30 8-120 mm zoom lens Order number **UPH-C485N-L8120** 

## UPH-C485P-L8120 Camera/Lens Assembly

LTC 0485 Dinion<sup>XF</sup> 1/3 in. PAL color camera with an LTC 3293/30 8-120 mm zoom lens Order number **UPH-C485P-L8120** 

## UPH-C498N-L8120 Camera/Lens Assembly

LTC 0498 Dinion 2X 1/3 in. NTSC day/night camera with an LTC 3293/30 8-120 mm zoom lens Order number **UPH-C498N-L8120** 

## UPH-C498P-L8120 Camera/Lens Assembly

LTC 0498 Dinion 2X 1/3 in. PAL day/night camera with an LTC 3293/30 8-120 mm zoom lens Order number **UPH-C498P-L8120** 

## UPH-C610N-L8120 Camera/Lens Assembly

LTC 0610 Dinion<sup>XF</sup> 1/2 in. NTSC color camera with an LTC 3293/30 8-120 mm zoom lens Order number **UPH-C610N-L8120** 

## UPH-C610P-L8120 Camera/Lens Assembly

LTC 0610 Dinion<sup>XF</sup> 1/2 in. PAL color camera with an LTC 3293/30 8-120 mm zoom lens Order number **UPH-C610P-L8120** 

#### UPH-C630N-L8120 Camera/Lens Assembly

LTC 0630 Dinion 2X 1/2 in. NTSC day/night camera with an LTC 3293/30 8-120 mm zoom lens Order number UPH-C630N-L8120

#### UPH-C630P-L8120 Camera/Lens Assembly

LTC 0630 Dinion 2X 1/2 in. PAL day/night camera with an LTC 3293/30 8-120 mm zoom lens Order number **UPH-C630P-L8120** 

#### UPH-C498N-L8585 Camera/Lens Assembly

LTC 0498 Dinion 2X 1/3 in. NTSC day/night camera with an LTC 3783/51 8.5-85 mm IR-corrected lens Order number **UPH-C498N-L8585** 

#### UPH-C498P-L8585 Camera/Lens Assembly

LTC 0498 Dinion 2X 1/3 in. PAL day/night camera with an LTC 3783/51 8.5-85 mm IR-corrected lens Order number **UPH-C498P-L8585** 

# UPH-C630N-L8585 Camera/Lens Assembly

LTC 0630 Dinion 2X 1/2 in. NTSC day/night camera with an LTC 3783/51 8.5-85 mm IR-corrected lens Order number **UPH-C630N-L8585** 

#### UPH-C630P-L8585 Camera/Lens Assembly

LTC 0630 Dinion 2X 1/2 in. PAL day/night camera with an LTC 3783/51 8.5-85 mm IR-corrected lens Order number **UPH-C630P-L8585** 

#### UPH-C498N-L86154 Camera/Lens Assembly

LTC 0498 Dinion 2X 1/3 in. NTSC day/night camera with an LTC 3793/51 8.6-154 mm IR-corrected zoom lens

Order number UPH-C498N-L86154

## UPH-C498P-L86154 Camera/Lens Assembly

LTC 0498 Dinion 2X 1/3 in. PAL day/night camera with an LTC 3793/51 8.6-154 mm IR-corrected zoom lens Order number **UPH-C498P-L86154** 

## UPH-C630N-L86154 Camera/Lens Assembly

LTC 0630 Dinion 2X 1/2 in. NTSC day/night camera with an LTC 3793/51 8.6-154 mm IR-corrected zoom lens

Order number UPH-C630N-L86154

#### UPH-C630P-L86154 Camera/Lens Assembly

LTC 0630 Dinion 2X 1/2 in. PAL day/night camera with an LTC 3793/51 8.6-154 mm IR-corrected zoom lens Order number **UPH-C630P-L86154** 

# UPH-HD-24 Standard High-Speed Positioning System, 24 VAC

High-performance pan/tilt head, camera housing, telemetry receiver, 24 VAC, 50/60 Hz Order number **UPH-HD-24** 

# UPH-HD-230 Standard High-Speed Positioning System, 230 VAC

High-performance pan/tilt head, camera housing, telemetry receiver, 230 VAC, 50/60 Hz Order number **UPH-HD-230** 

# UPH-HWD-230 Standard High-Speed Positioning System with a wiper, 230 VAC

High-performance pan/tilt head, camera housing, telemetry receiver, and wiper, 230 VAC, 50 Hz Order number **UPH-HWD-230** 

# UPH-HWD-120 Standard High-Speed Positioning System with a wiper, 120 VAC

High-performance pan/tilt head, camera housing, telemetry receiver, and wiper, 120 VAC, 60 Hz Order number **UPH-HWD-120** 

# UPH-HWD-24 Standard High-Speed Positioning System with a wiper, 24 VAC

High-performance pan/tilt head, camera housing, telemetry receiver, and wiper, 24 VAC, 50/60 Hz Order number **UPH-HWD-24** 

# UPH-HWDIR-24 IR 360 High-Speed Positioning System with a wiper, 24 VAC

High-performance pan/tilt head, camera housing, telemetry receiver, and bracket assembly for IR two illuminators, 24 VAC, 50/60 Hz
Order number UPH-HWDIR-24

## **MTC-PUPH Outdoor Pole Mount**

for mounting a UPH series unit to the top of a pole Order number MTC-PUPH

## **MTC-WUPH Outdoor Wall Mount**

for UPH series
Order number MTC-WUPH

## MTC-CORN-W Corner Adapter for MTC-WUPH

Order number MTC-CORN-W

### MTC-POLE-W Pole Adapter for MTC-WUPH

for mounting a UPH series unit to the side of a pole Order number MTC-POLE-W

#### **Accessories**

## **UFLED10-8BD AEGIS Illuminator**

AEGIS Intelligent-IR UFLED illuminator, 10°, 850 nm Order number **UFLED10-8BD** 

#### **UFLED20-8BD AEGIS Illuminator**

AEGIS Intelligent-IR UFLED illuminator, 20°, 850 nm Order number **UFLED20-8BD** 

# **UFLED30-8BD AEGIS Illuminator**

AEGIS Intelligent-IR UFLED illuminator, 30°, 850 nm Order number **UFLED30-8BD** 

#### HAC-WAS05-20 24 VAC Washer

24 VAC washer inst. 4M 25L Order number **HAC-WAS05-20** 

#### HAC-WAS05-50 230 VAC Washer

230 VAC washer inst. 4M 25L Order number HAC-WAS05-50

#### HAC-WAS30-50 230 VAC Washer

230 VAC washer inst. 30M 25L Order number HAC-WAS30-50

# WPTV244300UL 4-channel Outdoor Power Supply, 120 VAC

Four-channel, 120 VAC input, 24/28 VAC output, 12.5 A total output, outdoor Order number WPTV244300UL

# WPTV244300220 4-channel Outdoor Power Supply, 220 VAC

Four-channel, 220 VAC input, 24/28 VAC output, 12.5 A total output, outdoor Order number WPTV244300220

#### **UFLED-CL-1M Link Cable**

1 m (3.3 ft) telemetry link cable for Aegis illuminators Order number UFLED-CL-1M

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