



# LTC 9420 Series Outdoor Pan/Tilts

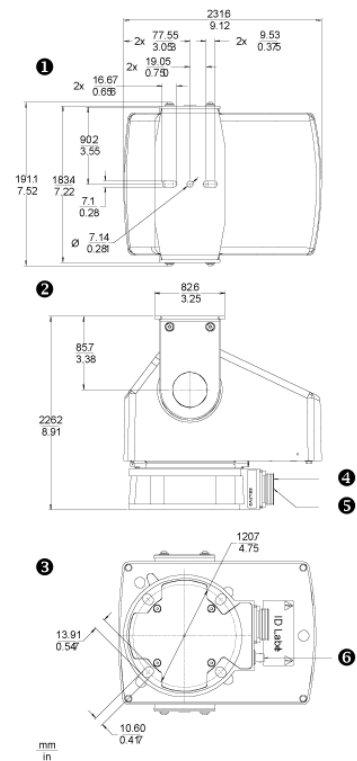


- ▶ **Maximum Load - 10 kg (22 lb)**
- ▶ **Low Profile, Compact Size**
- ▶ **Feed-through Wiring**
- ▶ **100% Duty Cycle Motors**
- ▶ **Upright or Inverted Operation**
- ▶ **Pre-position and 345° Models Available**

The LTC 9420 Series Weatherproof Pan/Tilts are low profile, compact units constructed with corrosion resistant hardware. Featuring feed-through wiring for lens and camera power, video, and external sync connections, these remote positioning devices are rated for a maximum load of 10 kg (22 lb) and are fully system compatible with CCD cameras, lenses, and housing combinations.

The 100% duty cycle motors permit continuous operation on all models. Low speed worm drives and flexible motor mounts offer quiet, smooth motion. The use of impedance and overload protected motors, long life limit switches, and permanently lubricated bearings reduce maintenance and provide reliable operation.

## Installation/Configuration Notes



Dimensional Outline

- 1 Top view
- 2 Side view
- 3 Bottom view
- 4 Ground screw (on other side of multipin connector)
- 5 Multipin connector
- 6 BNC Connector

## Technical Specifications

### Electrical

Model No. <sup>1)</sup>	Rated Motor Voltage	Operational Voltage Range
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#### Standard Models –0° to 345°

LTC 9420/60	110 VAC, 60 Hz	108 to 132 VAC
LTC 9420/20	24 VAC, 60 Hz	21.6 to 26.4 VAC
LTC 9420/10	24 VAC, 50 Hz	21.6 to 26.4 VAC
LTC 9420/50	220 VAC, 50 Hz	207 to 253 VAC

#### Pre-position Models –0° to 345°

LTC 9420/61	110 VAC, 60 Hz	108 to 132 VAC
LTC 9420/21	24 VAC, 60 Hz	21.6 to 26.4 VAC
LTC 9420/11	24 VAC, 50 Hz	21.6 to 26.4 VAC
LTC 9420/51	220 VAC, 50 Hz	207 to 253 VAC

#### Connectors:

Power:	Via 24-pin connector on base through to 3-conductor cable on pan head
Lens and Accessories:	Via 24-pin connector on base through to 10-conductor cable on pan head
Video:	Via BNC connector on base through to Flying Lead coax on pan head
Ground:	Screw connection for grounding on base

#### Recommended Maximum Cable Lengths:

Model Voltage <sup>2)</sup>	Wire Size		Distance	
	mm <sup>2</sup>	AWG	Feet	Meters
24 VAC	0.5	20	140	43
	1	18	230	70
	1.5	16	360	110
	2.5	14	590	180
	4	12	940	287
115 VAC	0.5	20	2200	671
	1	18	3500	1067
	1.5	16	5500	1677
230 VAC	2.5	14	9000	2744
	0.5	20	13400	4085
	1	18	21200	6463
	1.5	16	33300	10152
	2.5	14	54400	16585

1) The total power for all models, with both motors running, is 24 W.

2) Values calculated at 20° C (68° F) using stranded tinned copper wire common ground (neutral), and with both pan and tilt motors operating simultaneously.

## Mechanical

Mounting	These units are designed for either upright or inverted installations. To maintain weatherproof integrity when mounting outdoors in an inverted position, the unit must be installed in a weatherproof enclosure (e.g., weatherproof domed housing) or a protected outside to 345° area. They can only be mounted upright or inverted; never horizontally.
Pan Range (Movement in horizontal plane)	
Pan Speed	7°/sec
Tilt (Movement in vertical plane)	
	+30° to -90° against the horizontal
Tilt Speed	3.5°/sec
Maximum Load	149 kg-cm (129 lb-in) torque or 10 kg (22 lb) at a distance of 63.5 mm (2.5 inch) from the center of mass of the camera/lens/housing assembly to the center of the tilt table
Construction	Cast aluminum base and yoke, corrosion resistant plastic cover
Finish	Light gray
Dimensions	See Dimensional Outline
Weight	6.67 kg (14.7 lb)

## Environmental

Temperature	
Operating	-30°C to +60°C (-22°F to +140°F)
Storage	-40°C to +60°C (-40°F to +140°F)
Vibration	3 g swept sine wave, 15 Hz to 2000 Hz
Shock	50 g, 11 ms, 1/2 sine
Enclosure	Tested to IP54 requirements. UL 50 Type 3/NEMA-3 design (upright mounting)

## Product Regulatory Compliance

### Electromagnetic Compatibility (EMC)

C (68° Complies with FCC Part 15, ICES-003, F) using stranded and CE regulations

Product Safety	Complies with CE regulations, UL, CSA, EN, and IEC Standards
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## Ordering Information

LTC 9420/10 Weatherproof Standard Pan/Tilts Max. load 10 kg, 24 VAC, 50 Hz, feed-through wiring	LTC9420/10
LTC 9420/11 Weatherproof Pre-position Pan/Tilts Max. load 10 kg, 24 VAC, 50 Hz, feed-through wiring	LTC9420/11
LTC 9420/12 Weatherproof Continuous Pan Pan/Tilts Max. load 10 kg, 24 VAC, 50 Hz, feed-through wiring	LTC9420/12

## Ordering Information

LTC 9420/13 Weatherproof Continuous Pan Models with Pre-position Max. load 10 kg, 24 VAC, 50 Hz, feed-through wiring	LTC9420/13
LTC 9420/20 Weatherproof Standard Pan/Tilts Max. load 10 kg, 24 VAC, 60 Hz, feed-through wiring	LTC9420/20
LTC 9420/21 Weatherproof Pre-position Pan/Tilts Max. load 10 kg, 24 VAC, 60 Hz, feed-through wiring	LTC9420/21
LTC 9420/22 Weatherproof Continuous Pan Pan/Tilts Max. load 10 kg, 24 VAC, 60 Hz, feed-through wiring	LTC9420/22
LTC 9420/23 Weatherproof Continuous Pan Models with Pre-position Max. load 10 kg, 24 VAC, 60 Hz, feed-through wiring	LTC9420/23
LTC 9420/50 Weatherproof Standard Pan/Tilts Max. load 10 kg, 230 VAC, 50 Hz, feed-through wiring	LTC9420/50
LTC 9420/51 Weatherproof Pre-position Pan/Tilts Max. load 10 kg, 230 VAC, 50 Hz, feed-through wiring	LTC9420/51
LTC 9420/60 Weatherproof Standard Pan/Tilts Max. load 10 kg, 120 VAC, 60 Hz, feed-through wiring	LTC9420/60
LTC 9420/61 Weatherproof Pre-position Pan/Tilts Max. load 10 kg, 120 VAC, 60 Hz, feed-through wiring	LTC9420/61
<b>Accessories</b>	
LTC 9214/00 Versatile Mount for 14-inch, 90.6 kg (200 lb) max load upright, light gray finish	LTC9214/00
LTC 9224/00 Versatile Mount for 24-inch, 90.6 kg (200 lb) max load upright, light gray finish	LTC9224/00
LTC 9216/00 Versatile Mount for 16-inch, 45.3 kg (100 lb) max load, light gray finish	LTC9216/00
LTC 9222/00 Versatile Mount for 22-inch, 90.6 kg (200 lb) max load, light gray finish	LTC9222/00
LTC 9227/00 Versatile Mount for LTC 9216 & 92220, 45.3 kg (100 lb) max load, adjustable head, light gray finish	LTC9227/00
LTC 9228/00 Versatile Mount for LTC 9216/00 & LTC 9222/00 wall mounts, 45.3 kg (100 lb) max load, flange bracket	LTC9228/00
LTC 9225/00 Pole Mount 45.3 kg (100 lb) max load, pole mount, light gray finish	LTC9225/00

## Ordering Information

LTC 9226/00 Versatile Mount  
for LTC 9216 & LTC 9222, 45,3 kg (100 lb)  
max load, corner mount bracket, light gray  
finish

LTC9226/00

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