



LTC 9409 Series Outdoor Pan/Tilts



- ▶ **Low Profile, Compact Size**
- ▶ **Economical**
- ▶ **100% Duty Cycle Motors**
- ▶ **Upright or Inverted Operation**
- ▶ **Permanently Lubricated**
- ▶ **Pre-Position Models Available**

The LTC 9409 Series Weatherproof Outdoor Pan/Tilts are low profile, economical, compact units constructed with corrosion-resistant hardware. These remote positioning devices are fully system compatible with CCD cameras, lenses, and housing combinations.

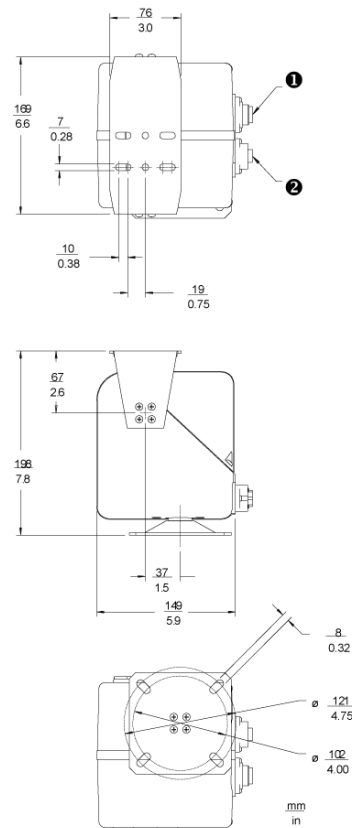
Functions

The 100% duty cycle motors permit continuous operation on all models. The modular gear-motors allow for "no alignment service". All-metal gearing, hardened steel drive shafts, and direct drive output offer superior reliability. Use of impedance protected motors, long life limit switches, and permanent lubricated bearings and gears reduce maintenance and provide trouble-free operation.

- 1 Power Connector (P-1)
- 2 Positioning Connector (P-2)*

* "-P" units only

Installation/Configuration Notes



Dimensions

Technical Specifications

Electrical

| Model No. ¹⁾ | Rated Motor Voltage | Operational Voltage Range | Total Pan Angle (No Fixed Stop) |
|----------------------------|---------------------|---------------------------|---------------------------------|
| Standard Models | | | |
| LTC 9409/60 | 115 VAC | 60 Hz 103 to 126 VAC | 15° to 355° |
| LTC 9409/20 | 24 VAC | 60 Hz 21.6 to 26.4 VAC | 15° to 355° |
| LTC 9409/10 | 24 VAC | 50 Hz 21.6 to 26.4 VAC | 15° to 355° |
| LTC 9409/50 | 230 VAC | 50 Hz 198 to 265 VAC | 15° to 355° |
| Pre-position Models | | | |
| LTC 9409/61 | 115 VAC | 60 Hz 103 to 126 VAC | 15° to 355° |
| LTC 9409/21 | 24 VAC | 60 Hz 21.6 to 26.4 VAC | 15° to 355° |
| LTC 9409/11 | 24 VAC | 50 Hz 21.6 to 26.4 VAC | 15° to 355° |
| LTC 9409/51 | 230 VAC | 50 Hz 198 to 265 VAC | 15° to 355° |

Connectors

Power Via 7-pin connector on unit

Positioning Via 7-pin connector on unit

Mating connectors provided with unit

Recommended Maximum Cable Lengths

| Model Voltage ²⁾ | Wire Size | | Distance | |
|--------------------------------|-----------------|-----|----------|--------|
| | mm ² | AWG | Meters | Feet |
| 24 VAC | 0.5 | 20 | 58 | 190 |
| | 1 | 18 | 91 | 300 |
| | 1.5 | 16 | 145 | 475 |
| | 2.5 | 14 | 236 | 775 |
| | 4 | 12 | 381 | 1250 |
| 115 VAC | 0.5 | 20 | 1402 | 4600 |
| | 1 | 18 | 2256 | 7400 |
| | 1.5 | 16 | 3537 | 11600 |
| | 2.5 | 14 | 5762 | 18900 |
| | 4 | 12 | 9146 | 30000 |
| 230 VAC | 0.5 | 20 | 7622 | 25000 |
| | 1 | 18 | 12043 | 39500 |
| | 1.5 | 16 | 18172 | 59600 |
| | 2.5 | 14 | 30701 | 100700 |
| | 4 | 12 | 48872 | 160300 |

1) The total power for all models with both motors running, is 18W. Single phase power sources only.

2) Values calculated at 20 C (68° F) using stranded copper wire, a single conductor Pan/Tilt common (neutral) wire, and with both PAN and TILT motors operating simultaneously.

Mechanical

| | |
|----------------|---|
| Pan/Tilt Speed | 7.5°/sec at 60Hz (6.3°/sec at 50Hz) |
| Tilt | Movement in vertical plane + 20° to -90° from horizontal |

| | |
|--------------|--|
| Maximum Load | 65 kg-cm (56.5 in-lb) torque or 5.0kg (11 lb) at a distance of 63.5mm (2.5 inch) from the center to of mass of the camera/lens/housing assembly to the center of the tilt table to |
| Construction | Aluminum, with corrosion-resistant hardware |
| Finish | Mushroom |
| Dimensions | See Dimensional Outline |
| Weight | 4.8kg (10.5 lb) |

Environmental

| | |
|-------------|-------------------------------------|
| Temperature | |
| Operating | -20°C to +60°C (-4°F to +140°F) |
| Storage | -40°C to +60°C (-40°F to +140°F) |
| Vibration | 3 g swept sine wave, 15Hz to 2000Hz |
| Shock | 50 g, 11 ms, 1/2 sine |

Enclosure Protection

| | |
|-------------------------------------|--|
| | Designed to NEMA-4, IP65/UL50, (Watertight) Enclosure Type 4X |
| Product Regulatory Compliance | |
| Electromagnetic Compatibility (EMC) | Complies with FCC Part 15, ICES-003 and CE regulations |
| Product Safety | Complies with CE regulations, UL, CSA, EN and IEC Standards |

Ordering Information

| | |
|---|-------------|
| LTC 9409/60 Weatherproof Standard Pan/Tilts Max. load 5 kg, 115 VAC, 60 Hz | LTC 9409/60 |
| LTC 9409/20 Weatherproof Standard Pan/Tilts Max. load 5 kg, 24 VAC, 60 Hz | LTC9409/20 |
| LTC 9409/10 Weatherproof Standard Pan/Tilts Max. load 5 kg, 230 VAC, 50 Hz | LTC9409/10 |
| LTC 9409/50 Weatherproof Standard Pan/Tilts Max. load 5 kg, 24 VAC, 50 Hz | LTC9409/50 |
| LTC 9409/61 Weatherproof Pre-position Pan/ Tilts Max. load 5 kg, 120 VAC, 60 Hz | LTC9409/61 |
| LTC 9409/21 Weatherproof Pre-position Pan/ Tilts Max. load 5 kg, 24 VAC, 60 Hz | LTC9409/21 |
| LTC 9409/11 Weatherproof Pre-position Pan/ Tilts Max. load 5 kg, 230 VAC, 50 Hz | LTC9409/11 |
| LTC 9409/51 Weatherproof Pre-position Pan/ Tilts Max. Load 5 kg, 24VAC, 50Hz | LTC9409/51 |

Accessories

| | |
|---|------------|
| LTC 9214/00 Versatile Mount for 14-inch, 90.6 kg (200 lb) max load up- right, light gray finish | LTC9214/00 |
| LTC 9224/00 Versatile Mount for 24-inch, 90.6 kg (200 lb) max load up- right, light gray finish | LTC9224/00 |

Ordering Information

| | |
|--|------------|
| 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 |
| 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 |
| LTC 9222/00 Versatile Mount for 22-inch, 90,6 kg (200 lb) max load, light gray finish | LTC9222/00 |

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Americas:
Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Asia-Pacific:
Bosch Security Systems Pte Ltd
38C Jalan Pemimpin
Singapore 577180
Phone: +65 6319 3450
Fax: +65 6319 3499
apr.securitysystems@bosch.com
www.boschsecurity.com

Represented by