



BOSCH
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LTC 9440 Series Weatherproof Outdoor Pan/Tilts

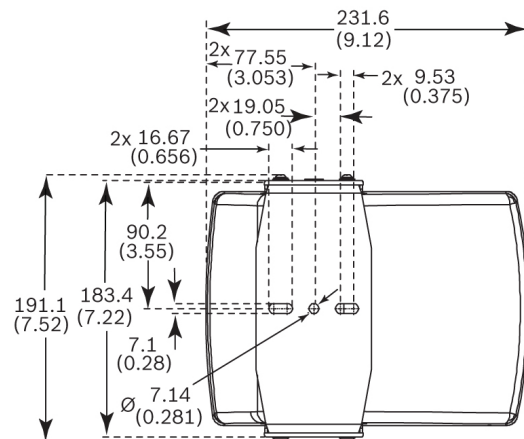


- ▶ **Maximum load - 18 kg (40 lb)**
- ▶ **Low profile, compact size**
- ▶ **Feed-through wiring models**
- ▶ **100% Duty cycle motors**
- ▶ **Upright or inverted operation**
- ▶ **Pre-position models available**

The LTC 9440 Series Weatherproof Pan/Tilts are low profile, compact units constructed with corrosion-resistant hardware. These remote positioning devices are rated for a maximum load of 18 kg (40 lb), and are fully system compatible with CCD cameras, lenses, and housing combinations. The LTC 9440 Series features feed-through wiring for lens and camera power, video, and external sync connections.

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, reduces maintenance and provide reliable operation.

Installation/Configuration Notes

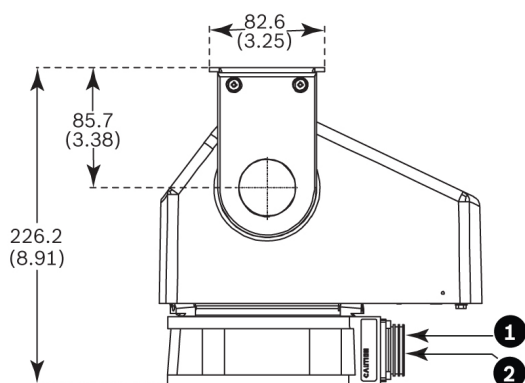


Certifications and Approvals

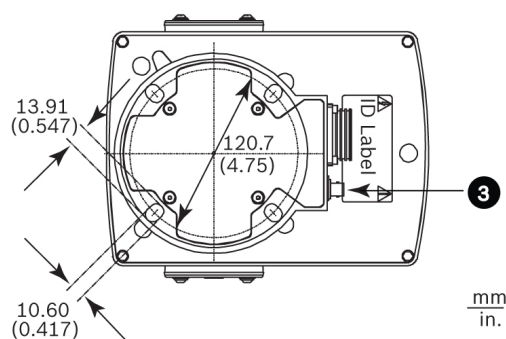
Product Safety

Complies with UL and CSA Standards

Top View



Side View



Bottom View

Reference #	Description
1	Ground screw (on other side of multi-pin connector)
2	Multi-pin Connector
3	BNC connector

Technical Specifications

Electrical

LTC 9440/00	Non-feed-through models
Model Number ¹	Rated motor voltage and voltage range
Standard Models - 0° to 345°	
LTC 9440/60	120 VAC, 60 Hz, 108 to 132
LTC 9440/20	24 VAC, 60 Hz, 23 to 26.4

LTC 9440/00	Non-feed-through models
Pre-position Models - 0° to 345°	
LTC 9440/61	120 VAC, 60 Hz, 108 to 132
LTC 9440/21	24 VAC, 60 Hz, 23 to 26.4
Connectors	
Power	Via 24-pin connector on base
Ground	Screw connection for grounding on base
1 The total power for all models, with both motors running, is 20 W.	

Electrical

LTC 9441 Series	Feed-through models
Model Number ²	Rated motor voltage and voltage range
Standard Model - 0° to 345°	
LTC 9441/20	24 VAC, 60 Hz, 23 to 26.4
Pre-position Model - 0° to 345°	
LTC 9441/21	24 VAC, 60 Hz, 23 to 26.4
2 The total power for all models, with both motors running, is 20 W.	

Connectors

Power	Via 24-pin connector on base, through to 3-conductor cable on pan head
Ground	Screw connection for grounding on base
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

LTC 9440 and LTC 9441 Series

Recommended Maximum Cable Lengths

Model Voltage	Wire Size		Distance ³	
	mm ²	AWG	m	ft
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
120 VAC ⁴	0.5	20	2200	671
	1	18	3500	1067
	1.5	16	5500	1677
	2.5	14	9000	2744

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

4 For 24 VAC models operating at or near -30°C, values are based upon maintaining the supplied voltage within the voltage range specified.

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 in a protected outside area. They may only be mounted upright or inverted; never horizontally.
Pan Range (movement in horizontal plane)	0° to 345° maximum
Pan Speed Tilt (movement in vertical plane)	7°/sec
120 VAC Models	+30° to –90° from horizontal
24 VAC Models	+30° to –90° from horizontal at specified temperature range and 23.0 to 26.4 VAC range +30° to –75° from horizontal at specified temperature range and 21.6 to 22.9 VAC range
Tilt Speed	1.2°/sec
Maximum Load	292 kg-cm (260 lb-in.) torque or 18 kg (40 lb) at a distance of 123 mm (3.1 in.) 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
Weight	7.05 kg (15.5 lb)

Environmental**Operating Temperature**

24 VAC Models (23 to 26.4 operating V)	–30°C to 50°C (–22°F to 122°F)
120 VAC Models (108 to 119 operating V)	–30°C to 50°C (–22°F to 122°F)
120 VAC Models (120 to 132 operating V)	–45°C to 50°C (–49°F to 122°F)
Storage Temperature	–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 NEMA-3 requirements (upright mounting) IP54 design

Ordering Information

LTC 9440/20 Waterproof Pan/Tilt Standard Models - 0° to 345°, 24 VAC, 60 Hz, 23 to 26.4 V	LTC9440/20
LTC 9440/21 Weatherproof Pre-position Pan/Tilts Max. load 18 kg, 24 VAC, 60 Hz	LTC 9440/21
LTC 9440/60 Waterproof Pan/Tilt Standard Models - 0° to 345° 110 VAC, 60 Hz, 108 to 132 V	LTC 9440/60
LTC 9440/61 Weatherproof Pre-position Pan/Tilts Max. load 18 kg, 120 VAC, 60 Hz	LTC 9440/61
LTC 9441/20 Waterproof Pan/Tilt Standard Model - 0° to 345°, 24 VAC, 60 Hz, 23 to 26.4 V	LTC 9441/20
LTC 9441/21 Weatherproof Pre-position Pan/Tilts Max. load 18 kg, 24 VAC, 60 Hz, feed-through-wiring	LTC 9441/21
Accessories	
LTC 9212/00 Wall Mount for 12-inch, 9 kg (20 lb) max load, for LTC 938x and LTC 948x series housings, light gray finish	LTC 9212/00
LTC 9210/00 Column Mount for 8-inch, 9 kg (20 lb) max load, light gray finish	LTC 9210/00
LTC 9223/00 Column Mount for 24-inch, 9 kg (20 lb) max load, light gray finish	LTC 9223/00
LTC 9213/01 Pole Mount Adapter for LTC 9210, LTC 9212 and LTC 9215, light gray finish	LTC 9213/01
LTC 9219/01 Feed-through J-Mount for 15-inch, 9 kg (20 lb) max load, for LTC 938x and LTC 948x series housings, light gray finish	LTC 9219/01
LTC 9215/00S Short Wall Bracket for 7-inch, 9 kg (20 lb) max load, for LTC 938x and LTC 948x series housings, feed-through version, light gray finish	LTC 9215/00S
LTC 9215/00 Wall Bracket for 12-inch, 9 kg (20 lb) max load, for LTC 9380 and LTC 948x series housings, feed-through version, light gray finish	LTC 9215/00
LTC 9222/00 Versatile Mount for 22-inch, 90.6 kg (200 lb) max load, light gray finish	LTC 9222/00
LTC 9216/00 Versatile Mount for 16-inch, 45.3 kg (100 lb) max load, light gray finish	LTC 9216/00
LTC 9224/00 Versatile Mount for 24-inch, 90.6 kg (200 lb) max load upright, light gray finish	LTC 9224/00

Ordering Information

LTC 9228/00 Versatile Mount for LTC 9216/00 and LTC 9222/00 wall mounts, 45.3 kg (100 lb) max load, flange bracket	LTC 9228/00
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LTC 9214/00 Versatile Mount for 14-inch, 90.6 kg (200 lb) max load upright, light gray finish	LTC 9214/00
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LTC 9227/00 Versatile Mount for LTC 9216 and LTC 9222/00, 45.3 kg (100 lb) max load, adjustable head, light gray finish	LTC 9227/00
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LTC 9226/00 Versatile Mount for LTC 9216 and LTC 9222, 45.3 kg (100 lb) max load, corner mount bracket, light gray fin- ish	LTC 9226/00
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LTC 9225/00 Pole Mount 45.3 kg (100 lb) max load, pole mount, light gray finish	LTC 9225/00
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