



PRODUCT SPECIFICATION

MODEL: V390APT AND V390APT-PP

PRODUCT CODE: 0170 AND 0170-03

DESCRIPTION: WEATHERPROOF HEAVY-DUTY PAN-AND-TILT DRIVE

- 80 lb (36 kg) load rating
- Weatherproof
- Heavy-duty
- Autopan



The V390APT Pan-and-Tilt Drive is a weatherproof, heavy-duty unit with autopan capable of operating with loads up to 80 pounds (36 kg) and 75 pounds (34 kg) in an inverted position (indoors only). The heavy-duty motors are constructed with hardened-steel gears that never require lubrication. All-weather protection is provided by "O" ring and gasket seals with Teflon* wear surfaces. Solenoid-operated brakes provide excellent operating stability with minimum coast. Counterbalanced tilt arms provide smooth, reliable tilt operation. Model V390APT-PP allows preset position operation with an appropriate control.

NOTES	SPEC NO.	REV.	SEC.
SUPERSEDES PRODUCT SPECIFICATION 433-499	433	706	5



V390APT PAN-AND-TILT DRIVE

This 120 VAC unit may be operated directly by a control. Refer to Table 1 for maximum operating distances.

CAUTION: Use of units with the preset option in autopan mode voids the warranty. Mounting the unit outdoors in the inverted position voids the product warranty.

ASSOCIATED EQUIPMENT AND ACCESSORIES

Model V501G Cable Guard: Prevents cable entanglement during combined pan-and-tilt action. Product code 0212.

CONTRACTORS' SPECIFICATION

WEATHERPROOF PAN-AND-TILT DRIVE

The pan-and-tilt drive shall be a weatherproof type with a load rating of 80 lb (36 kg) or 75 lb (34 kg) when mounted indoors in the inverted position. It shall be capable of continuous unattended panning. A version with preset position operation shall also be available.

The load rating shall be based on a moment-arm distance of 10 inches (25.4 cm) from the center of gravity of the load to the center of tilt rotation. Torque rating shall be 40 lb-ft (54 N-m) in the pan mode and 70 lb-ft (95 N-m) in the tilt mode. Maximum horizontal travel shall be 350°, and maximum vertical travel shall be 90 deg. Pan speed shall be 6°/sec and tilt speed shall be 4°/sec with 60 Hz input or 5°/sec pan and 3.3°/sec tilt with 50 Hz input.

The pan and tilt motors shall be impedance protected. Double limit switch protection shall be provided in both directions. Braking shall be minimum coast, solenoid actuated in the pan and tilt modes. Pan limit stops shall be externally adjustable.

Dimensions shall not exceed: height: 14.0 in. (35.6 cm) (tilt platform horizontal); width: 10.8 in. (27.4 cm); depth: 6.5 in. (16.5 cm). The weight shall not exceed 37 lb (17 kg). Construction shall be of corrosion-protected steel and aluminum. Hardened steel shall be used for all gears, and bearings shall be heavy-duty roller type, factory lubricated for life. All seals shall be either O-ring or gasket type and have Teflon at wear surfaces.

The operating ambient temperature range shall be -30 to +140°F or -34 to +60°C.

The unit shall operate from 120 V, 50/60 Hz. Maximum input power shall not exceed 75 W nor maximum current exceed 0.68 A with pan and tilt functions operated simultaneously. Limit and reversing switches shall have 11 A, 10-million cycle rating.

The weatherproof pan-and-tilt drive shall be Vicon's model V390APT; the preset version shall be Vicon model V390APT-PP.

Product specifications subject to change without notice.

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TECHNICAL INFORMATION

ELECTRICAL

Input Voltage:	120 V, 60 Hz.
Power Consumption:	Pan: 21 W. Tilt: 44 W.
Heat Equivalent:	3.6 btu/min (0.9 cal/min). Note: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of the heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation.
Normal Operating Current:	0.68 A (pan-and-tilt functions operated simultaneously at rated speeds).
Overload Protection:	Impedance-protected motors.
Limit Switches:	11 A, 10-million cycle rating. Double switch protection both directions.
Reversing Switch:	11 A, 10-million cycle rating.
Cable Requirements:	8-conductor, unshielded. Preset: 12-conductor, unshielded.

OPERATIONAL

Angular Travel:	Pan: 350° maximum. Tilt: ±90° maximum.
Limit Stops:	Externally adjustable.
Speed:	Pan: 6°/sec at 60 Hz. 5°/sec at 50 Hz. Tilt: 4°/sec at 60 Hz. 3.3°/sec at 50 Hz.
Torque:	Pan: 480 lb-in. (54 N-m). Tilt: 840 lb-in. (95 N-m).

Load Rating: Based on C.G. to center of tilt rotation distance of 10 in. (25 cm).
Upright: 80 lb (36 kg).
Inverted: 75 lb (34 kg).

Braking: Automatically engaging solenoid brake in pan and tilt for minimum coast.

MECHANICAL

Dimensions:	See Figure 1. Height: 14.0 in. (35.6 cm). Width: 10.8 in. (27.4 cm). Depth: 6.5 in. (16.5 cm).
Weight:	36.2 lb (16.4 kg).
Construction:	Die-cast aluminum housing. All parts corrosion-protected steel or aluminum.
Finish:	Light gray enamel.
Bearings:	Heavy-duty roller bearings on all rotating parts.
Gears:	Hardened steel.
Seals:	“O” ring and gasket seals with Teflon for all-weather protection.
Reversing:	Instantaneous.
Duty Cycle:	Pan: continuous. Tilt: intermittent.
Shipping Dimensions:	Height: 9.3 in. (24 cm). Width: 14.0 in. (36 cm). Length: 18.0 in. (46 cm).
Shipping Weight:	38.8 lb (17.6 kg).
Shipping Volume:	1.4 ft ³ (0.04 m ³).

ENVIRONMENTAL

Ambient Temperature Range: -30 to 140°F (-34 to 60°C).

**TABLE 1
MAXIMUM OPERATING DISTANCES**

Control Model	Wire Size (AWG) Annealed Copper	Maximum Distance ft (m)
V123APT	20	830 (250)
	18	1,300 (400)
	16	2,200 (9670)
	14	3,400 (1,000)

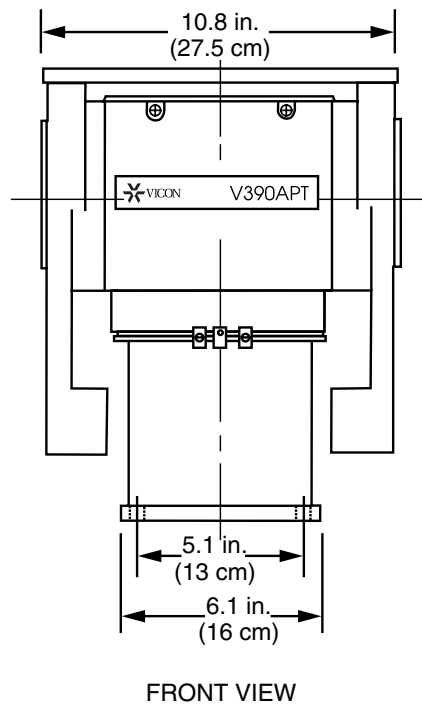
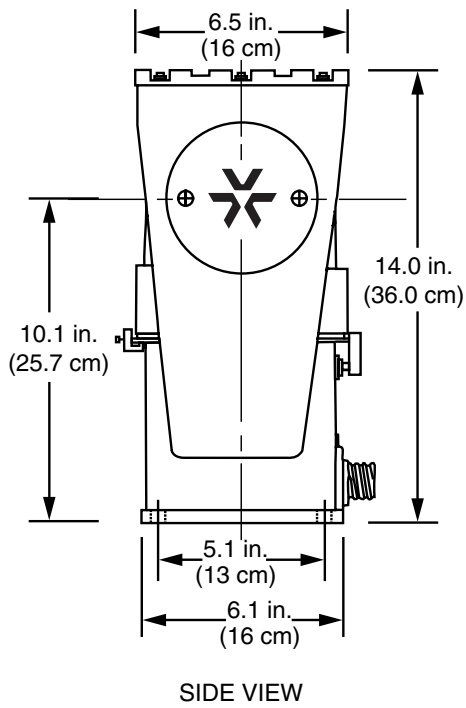
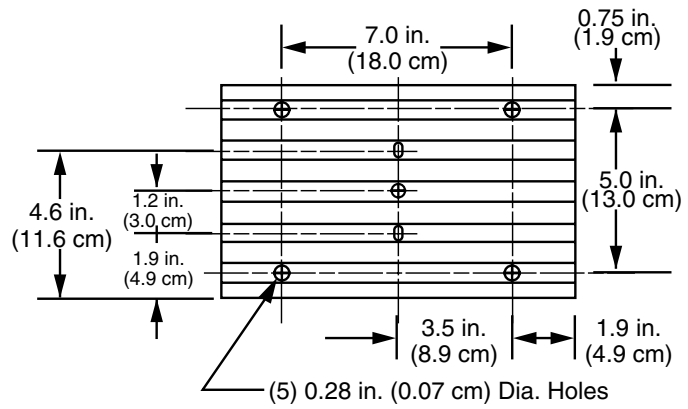


Figure 1
Overall Dimensions