



ViStar Series Heavy-Duty Pan-and-Tilt Drives

- 35 lb (16 kg) load rating, fixed speed; 25 lb (11 kg), variable speed
- Rugged weatherproof sand cast aluminum construction
- Designed for ease of installation and service
- Preset position, continuous rotation, autopan, and heater models available

The ViStar Pan-and-Tilt Drive is a weatherproof unit capable of operating with loads up to 35 pounds (16 kg) [variable-speed model is 25 lb (11 kg)]. The heavy-duty motors are constructed with hardened-steel gear trains that never require user maintenance. All-weather protection is provided by “O” rings and gasket seals.

The fixed-speed unit has an input voltage of 24 VAC and the variable speed unit uses 24 VDC; the pan-and-tilt may be operated directly by an appropriate control; when greater operating distances are required, a combination of a control and a relay box or a digital receiver may be used.

Thirteen model variations are available, three fixed speed, three fixed speed with a heater, three variable speed, three variable speed with a heater and one fixed speed with autopan. The standard versions are Model VIST35 (standard speed) and VIST25-V (variable speed); Models VIST35-H and VIST25-V-H have the heater. The preset versions, Models VIST35-P and VIST25-VP, come equipped with a preset position potentiometer and must be used with an appropriate control; Models VIST35-P-H and VIST25-VP-H have presets and the heater. The VIST35-RP and VIST25-VRP allow continuous rotation and preset; the VIST35-RP-H and VIST25-VRP-H have continuous rotation, presets and the heater. The VIST35-AP allows autopan operation. Refer to Table 1 for model descriptions. The term ViStar is used to refer to all models unless specifically stated otherwise.

Notes: SUPERSEDES PRODUCT SPECIFICATION 940-200

Model	Product Code	Description
VIST35	5849	Standard fixed speed
VIST35-P	5849-03	Fixed speed with presets
VIST35-RP	5849-05	Fixed speed with presets and continuous rotation
VIST35-AP	6476	Fixed speed with autopan
VIST25-V	5850	Standard variable speed
VIST25-VP	5850-03	Variable speed with presets
VIST25-VRP	5850-05	Variable speed with presets and continuous rotation
VIST35-H	6294	Standard fixed speed with heater option
VIST35-P-H	6294-03	Fixed speed with presets and heater option
VIST35-RP-H	6294-05	Fixed speed with presets, continuous rotation and heater option
VIST25-V-H	6295	Variable speed with heater option
VIST25-VP-H	6295-03	Variable speed with presets and heater option
VIST25-VRP-H	6295-05	Variable speed with presets, continuous rotation and heater option

Table 1
Models, Product Codes and Descriptions

Contractors' Specification

Weatherproof Pan-and-Tilt Drive

The pan-and-tilt drive shall be a weatherproof type and shall be available in a fixed speed and variable-speed version. The fixed-speed models shall have a load rating of 35 lb (16 kg); the variable-speed models shall have a load rating of 25 lb (11 kg). Versions with preset position operation, continuous rotation, autopan and a heater shall also be available.

The load rating shall be based on a moment-arm distance of 6.3 inches (16 cm) from the center of gravity of the load to the center of tilt rotation. Torque rating for the fixed-speed models shall be 110 lb-in. (12.4 N-m) in the pan mode and 220 lb-in. (24.9 N-m) in the tilt mode; torque rating for the variable-speed models shall be 79 lb-in. (8.9 N-m) in the pan mode and 158 lb-in. (17.9 N-m) in the tilt mode. Maximum horizontal travel shall be 360° for the standard version, 320° for the preset version, and unlimited pan for the continuous rotation version and maximum vertical travel shall be +26 to -85°. Pan speed shall be 6°/sec and tilt speed shall be 3°/sec for the fixed-speed versions and up to 48°/sec pan and 24°/sec tilt for the variable-speed version. Motors shall be thermal overload protected. Braking shall be internal to motor by design. No external braking shall be used. Pan limit stops shall be externally adjustable.

Dimensions shall not exceed: height: 10.7 in. (27.2 cm); width 8.4 in. (21.3 cm); depth: 7.5 in. (19.1 cm); base: 6.1 × 6.1 in. (16 × 16 cm). The weight shall not exceed 16 lb (7.3 kg).

Construction shall be sand cast aluminum housing, all parts corrosion-protected steel and aluminum. Hardened steel shall be used for all gears, and bearings shall be rolling contact ball, factory lubricated for life. All seals shall be either O-ring or gasket type for all-weather environmental protection.

The operating ambient temperature range shall be -30 to +120° F (-34 to +49° C) without the heater option and -60 to 120° F (-51 to 49° C) with the heater option.

Input voltage shall be 24 VAC, 50/60 Hz for the fixed-speed model and 24 VDC for the variable-speed model. Normal operating current for the fixed-speed version shall be 600 mA for pan and 618 mA for tilt; normal operating current for the variable speed version shall be 380 mA for pan and 1.1 A for tilt (measured at rated load); operating current for the heaters shall be 1.04 A. Limit and reversing switches shall have a 5 A, 10-million cycle rating.

The weatherproof fixed-speed pan-and-tilt drive shall be Vicon model VIST35; the preset version shall be Vicon model VIST35-P; the continuous rotation version shall be Vicon model VIST35-RP; the autopan version shall be Vicon model VIST35-AP. The weatherproof variable-speed pan-and-tilt drive shall be Vicon model VIST25-V; the preset version shall be Vicon model VIST25-VP; the continuous rotation version shall be Vicon model VIST25-VRP. The models with a heater option shall add a -H to the above model numbers. Refer to Table 1.

Technical Information

ELECTRICAL

Input Voltage: VIST35 Series: 24 VAC, 50/60 Hz.
VIST25 Series: 24 VDC.

Power Consumption: VIST35: 14.4 W, pan; 14.9 W tilt.
VIST35-H: 14.4 W, pan; 14.9 W tilt;
25 W heaters (@ 24 V).
VIST 25: 8.4 W pan; 24.2 W, tilt.
VIST25-H: 8.4 W, pan; 24.2 W, tilt;
25 W heaters (@ 24 V).

Heat Equivalent: VIST35: 1.7 btu/min (0.4 kg-cal/min).
VIST35-H: 3.1 btu/min (0.78 kg-cal/min).
VIST25: 1.9 btu/min (0.5 kg-cal/min).
VIST25-H: 3.3 btu/min (0.825 kg-cal/min).
Note: These figures represent the conversion of 100% of the electrical energy to heavy. 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: VIST35: 600 mA @ 24 VAC, pan;
618 mA @ 24 VAC, tilt.
Total: 1.2 A.

VIST35-H: 600 mA @ 24 VAC, pan;
618 mA @ 24 VAC, tilt; 1.04 A @
24 VAC, heater.
Total: 2.3 A.
VIST25: 380 mA @ 24 VDC, pan;
1.1 A @ 24 VDC, tilt.
Total: 1.5 A.
VIST25-H: 380 mA @ 24 VDC, pan;
1.1 A @ 24 VDC, tilt; 1.04 A @
24 VDC, heater.
Total: 2.5 A.
Maximum value at rated load.

Slip Ring Current/Voltage: 2A/210 VDC.

Limit Switches: 5 A, 10-million cycle rating.

Cable Requirements: Standard models: 8-conductor, unshielded.
Standard heated models: 9-conductor, unshielded.
Preset models: 13-conductor, unshielded.
Preset models with heaters: 15-conductor, unshielded.
Autopan model: 14-conductor, unshielded.
Continuous Rotation models: 25-conductor, unshielded and video cable.



Technical Information (cont'd)

OPERATIONAL

Angular Travel: Pan: VIST35/VIST25-V, 360° maximum;
VIST35-P/VIST25-VP; 320°;
VIST35-RP/VIST25-VRP;
unlimited pan.
Tilt: +26° to -85°.

Limit Stops: Externally adjustable.

Speed: VIST35:
Pan: 6°/sec.
Tilt: 3°/sec.

VIST25:
Pan: 1-48°/sec.
Tilt: 1-24°/sec.

Operating Distances: Refer to Table 2.

Load Rating: VIST35 Series: 35 lb (16 kg).
VIST25 Series: 25 lb (11 kg).
Based on center of gravity to center of tilt rotation distance of 6.3 in. (16 cm).

Torque: VIST35 Series:
Pan: 110 lb-in. (12.4 N-m).
Tilt: 220 lb-in. (24.9 N-m).
VIST25 Series:
Pan: 79 lb-in. (8.9 N-m).
Tilt: 158 lb-in. (17.9 N-m).

Braking: Internal to motor by design. No external braking used. VIST25 also has a built-in dynamic braking circuit.

Overload Protection: Motors may be stalled without danger of thermal overload.

Duty Cycle: Pan: continuous.
Tilt: continuous.

Backlash: Pan: 0° 30'.
Tilt: 0° 30'.

MECHANICAL

Dimensions: Height: 10.7 in. (27.2 cm).
Width: 8.4 in. (21.3 cm).
Depth: 7.5 in. (19.1 cm).
Base: 6.1 in. (16 cm) x 6.1 in. (16 cm).

Weight: 16 lb (7.3 kg).

Construction: Sand cast aluminum housing. All parts corrosion-protected steel, stainless steel, or aluminum.

Finish: Light gray textured polyurethane paint, black accents.

Bearings: Life-lubricated rolling contact ball bearings.

Gears: Steel.

Seals: "O" ring and gasket seals for all-weather environmental protection.

Mounting: Base: three mounting hole patterns to accommodate a variety of mounting configurations.
Camera/housing: three tray slots accommodate a variety of mounting patterns.

Shipping Dimensions: Height: 11.25 in. (28.6 cm).
Width: 15.75 in. (40.0 cm).
Depth: 12.1 in. (30.7 cm).

Shipping Weight: 18 lb (8.2 kg).

Shipping Volume: 1.2 ft³ (0.03 m³).

ENVIRONMENTAL

Operating

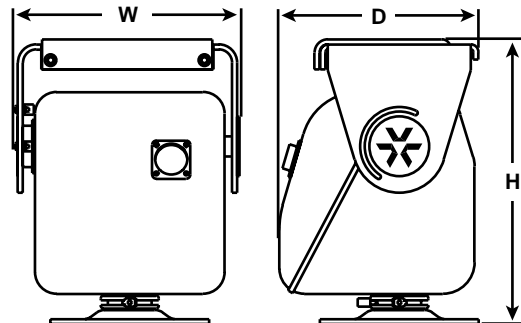
Temperature Range: -30 to 120° F (-34 to 49° C).
With heater option: -60 to 120° F (-51 to 49° C).

Storage

Temperature Range: -40 to 150° F (-40 to 65° C).

Storage Humidity: Up to 90% relative, noncondensing.

Wind: Up to 80 mph.



Pan-and-Tilt	Control	Wire Size (AWG) Annealed Copper	Maximum Distance ft (m)
VIST35, VIST35-H VIST35-P, VIST35-P-H VIST35-RP, VIST35-RP-H VIST35-AP	Any Vicon 24-VAC hardwired control or receiver	20 18 16 14	360 (110) 560 (170) 900 (275) 1420 (433)
VIST25-V, VIST25-V-H VIST25-VP, VIST25-VP-H VIST25-VRP, VIST25-VRP-H	V1305R-DC	20	250 (76.2)*

*Because the VIST25 has DC motors, the maximum speed of the motor is proportional to the input voltage. As operating distance increases, input voltage is reduced, causing slower speeds.

Table 2
Maximum Operating Distances