

Models Covered:

QPT-90 ... 12, 24, & 115 VDC variable speed*
QPT-90 ... 24, & 115 VAC fixed speed

* with proper controller



Heavy Duty Electro-Mechanical Pan & Tilts

MODEL	SERIES	DESCRIPTION
7-58000-4	QPT-90	115 VAC; pan 435°, 8°/sec; tilt ±90°, 3°/sec with pots, w/o autoscan
7-58000-SSB	QPT-90	115 VAC; pan 435°, 8°/sec; tilt ±90°, 3°/sec with pots, w/o autoscan, stainless steel base
7-58215-8	QPT-90	24 VAC; pan 435°, 8°/sec; tilt ±90°, 3°/sec with pots, w/o autoscan
7-59120	QPT-90	12 VDC; pan 435°, 10°/sec; tilt ±90°, 3°/sec, stowswitch
7-59121	QPT-90	12 VDC; pan 435°, 10°/sec; tilt ±90°, 3°/sec with pots, stowswitch
7-59005-2	QPT-90	24 VDC; pan 435°, 8°/sec; tilt ±90°, 4.5°/sec with pots
7-59206-6	QPT-90	115 VDC; pan 435°, 8°/sec; tilt ±90°, 3°/sec, stowswitch
7-59207-5	QPT-90	115 VDC; pan 435°, 8°/sec; tilt ±90°, 3°/sec with pots
7-59207-SSB	QPT-90	115 VDC; pan 435°, 8°/sec; tilt ±90°, 3°/sec with pots, stainless steel base

KEY FEATURES:

- Designed for Heavy Duty Mobile and Fixed Operation
- 435° pan rotation, ± 90° tilt motion
- 90 pound (41 kg) load capacity
- Various voltages available for fixed and variable speed models
- All metal gearing
- Aluminum housing with powder coat finish
- Potentiometers (for position feedback) available on certain models
- Stainless steel hardware
- Gasketed to withstand water and dust penetration
- Zero adjustable backlash
- Heater and Stainless Steel Base options

For Those Who Demand Durability!

QPT-90 DC Models (Variable Speed)

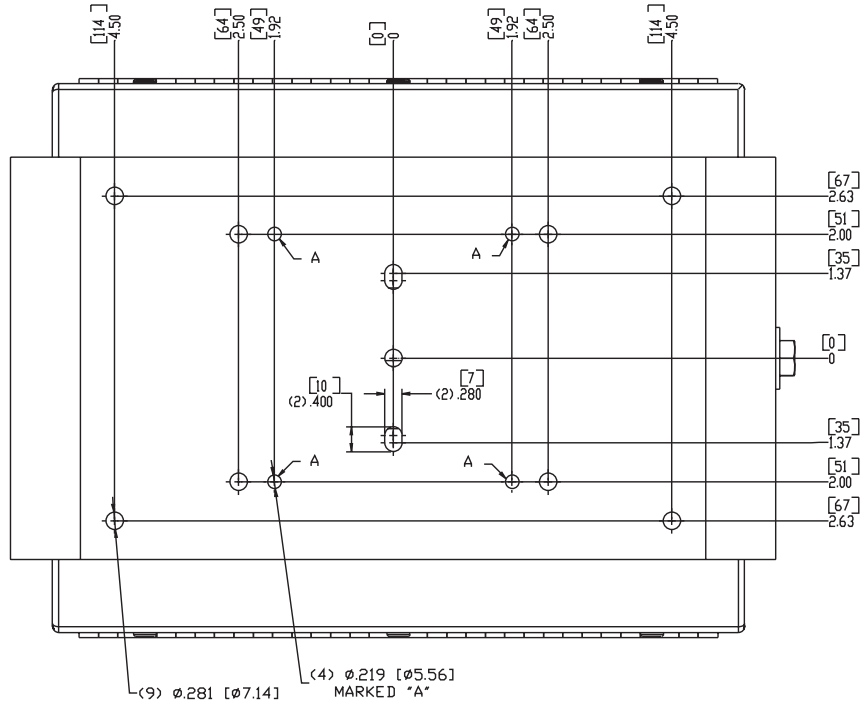
	12VDC	24VDC	115VDC
Voltage	12VDC	24VDC	115VDC
Load Capacity	90 lbs. (41 kg)	90 lbs. (41 kg)	90 lbs. (41 kg)
Duty Cycle	Intermittent	Intermittent	Intermittent
Pan Range	435° (±217.5°)	435° (±217.5°)	435° (±217.5°)
Pan Speed Range (± 1°)	.5° - 10° / sec.	.3° - 8° / sec	.3° - 8° / sec
Pan Torque	30 foot-pounds	30 foot-pounds	30 foot-pounds
Pan Motor Current	2.0 amps	1.9 amp	.2 amp
Tilt Range	180° ±90°	180° ±90°	180° ±90°
Tilt Speed Range (± 1°)	.1° - 3° / sec.	.1° - 4.5° / sec.	.1° - 3° / sec.
Tilt Torque	90 foot-pounds	90 foot-pounds	90 foot-pounds
Tilt Motor Current	3.2 amp	2.7 amp	.4 amp
Motor Type	Permanent Magnet	Permanent Magnet	Permanent Magnet
Connector (mating connector included)	17 pin	17 pin	17 pin
Dimensions	12.31"H x 12.36"W x 8.87"D (313mmH x 314mmW x 225mmD)		
Weight	37 lbs. (16.8 kg)		
Drivetrain	Steel gear & worm, ball & tapered roller bearings		
Limit Switches	Internal, adjustable		
Backlash	Adjustable to 0		
Accuracy	0.25° with potentiometers		
Material	Housing - Aluminum 6061 - T6, Hardware - Stainless Steel		
Exterior Color/Finish	Dupont 326162A, Ford PFWS9 Powder Coated (custom colors/private labeling upon request)		
Environmental Enclosure	Gasketed & sealed to withstand water & dust penetration		
Operating Temperature	+5°F to +131°F (-15°C to +55°C) (without Heater) -22°F to +131°F (-30°C to +55°C) (with Heater operating)		

QPT-90 AC Models (Fixed Speed)

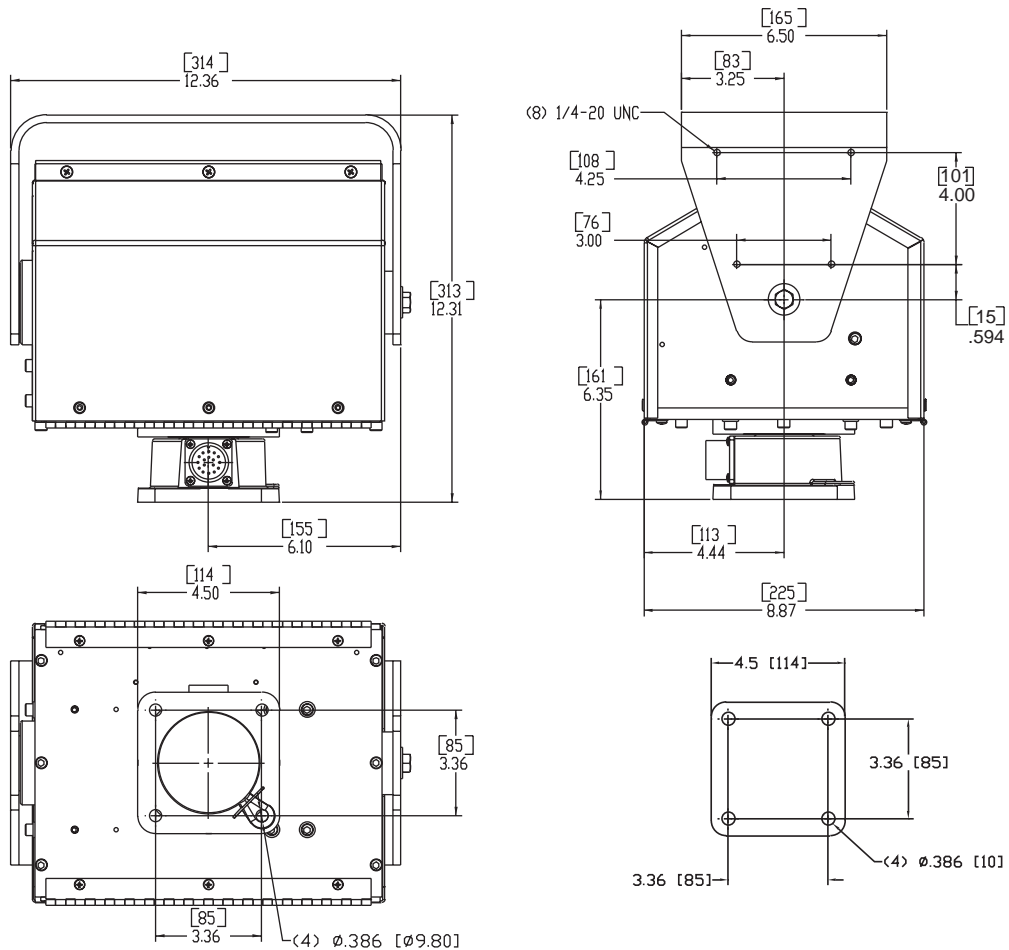
	24VAC	115VAC
Voltage	24VAC	115VAC
Load Capacity	90 lbs. (41 kg)	90 lbs. (41 kg)
Duty Cycle	Intermittent	Intermittent
Pan Range	435° (±217.5°)	435° (±217.5°)
Pan Speed Range (± 1°)	8° / sec.	8° / sec
Pan Torque	30 foot-pounds	30 foot-pounds
Pan Motor Current	1.2 amps	.25 amp
Tilt Range	180° ±90°	180° ±90°
Tilt Speed Range (± 1°)	2.5° / sec.	2.5° / sec.
Tilt Torque	90 foot-pounds	90 foot-pounds
Tilt Motor Current	1.9 amp	.4 amp
Motor Type	PM Split Capacitor	PM Split Capacitor
Connector (mating connector included)	14 pin	14 pin
Dimensions	12.31"H x 12.36"W x 8.87"D 313mmH x 314mmW x 225mmD	12.31"H x 12.36"W x 8.87"D 313mmH x 314mmW x 225mmD
Weight	37 lbs. (16.8 kg)	37 lbs. (16.8 kg)
Drivetrain	Steel gear & worm, ball & tapered roller bearings	
Limit Switches	Internal, adjustable	
Backlash	Adjustable to 0	
Accuracy	0.25° with potentiometers	
Material	Housing - Aluminum 6061 - T6, Hardware - Stainless Steel	
Exterior Color/Finish	Dupont 326162A, Ford PFWS9 Powder Coated (custom colors/private labeling upon request)	
Environmental Enclosure	Gasketed & sealed to withstand water & dust penetration	
Operating Temperature	+5°F to +131°F (-15°C to +55°C) (without Heater) -22°F to +131°F (-30°C to +55°C) (with Heater operating)	

*Specifications may change without notice

QPT-90 TABLE TOP MOUNTING HOLE DIMENSIONS



Dimensions are in inches [mm]



ORDERING CHECKLIST: (Guidance to select the proper Pan & Tilt for your application)

- Dimensions and weight of Payload to be mounted to Pan & Tilt?
- Wind load, ice buildup?
- Variable speed? Fixed speed? High or slow speed required?
- Autoscan required? (DC only models, requires proper controller)
- Cold temperature operation? Heater needed?
- Position feedback required? Pots?
- Distance from Pan & Tilt to controller?
- Operating Voltage of Pan & Tilt based on distance?

Selecting the proper size (AWG) of the wiring conductors.

Adequate wire size insures that sufficient voltage will appear across the pan/tilt motors which will provide the required torque to move the load. Among the many factors that influence the determination of wire size are minimum line voltage anticipated, the weight of the load, the distribution of the load, the minimum tilt angle, and the distance between the pan/tilt controller and the pan/tilt unit. Adherence to the data provided in the wire selection table will insure proper operation of the pan/tilt unit when operated with the rated load and at line voltages 10% below nominal. The information in Table 1 refers to all pan/tilt wires with the exception of the wires required for the operation of the potentiometer, encoder and heater options.

The wires required for operation of the potentiometer or encoder options should be shielded and can be #24 AWG or larger for distances of up to 1000 feet (#20 AWG or larger for distances up to 2000 feet). The heater primary power is normally supplied from the power mains at the pan/tilt site. The heater power requirements are 115 watts, @ 115 VAC depending upon pan/tilt model. Consult the schematic of the appropriate pan/tilt unit utilized and use wire sizes commensurate with your local electrical codes.

TABLE 1
Maximum Length, in feet, for each unit & wire size @ full load

WIRE GAUGE	12VDC	24VDC	115VDC	24VAC *	115VAC	220VAC
# 24		7	99	6	124	478
# 22	3	12	159	10	198	760
# 20	5	19	252	17	316	1,209
# 18	9	31	402	27	502	1,922
# 16	14	49	639	43	798	3,056
# 14	23	78	1,016	68	1,270	4,862
# 12	37	124	1,616	108	2,020	7,730
# 10	59	198	2,569	173	3,212	12,290
# 8	94	315	4,086	275	5,107	19,542

This chart reflects the following assumptions:

1. A 5% drop in voltage due to IR loss in the wiring.
2. A voltage drop of 10% from the nominal line voltage.
3. A 12% increase in wire resistance due to +50°C operation

NOTES:

* 24 VAC units must use two (2) neutral wires of the same gauge in parallel for these values.