

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)

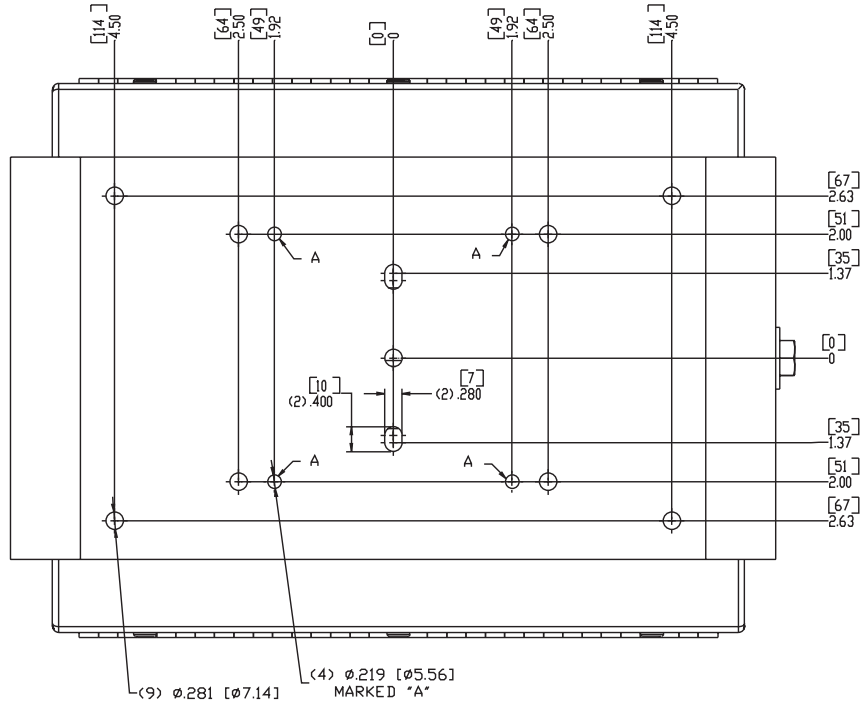
| | <u>12VDC</u> | <u>24VDC</u> | <u>115VDC</u> |
|--|---|-------------------|------------------|
| Voltage | 12VDC | 24VDC | 115VDC |
| Load Capacity | 90 lbs. (41 kg) | 90 lbs. (41 kg) | 90 lbs. (41 kg) |
| Duty Cycle | Intermittent | Intermittent | Intermittent |
| Pan Range | 435° (±217.5°) | 435° (±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)

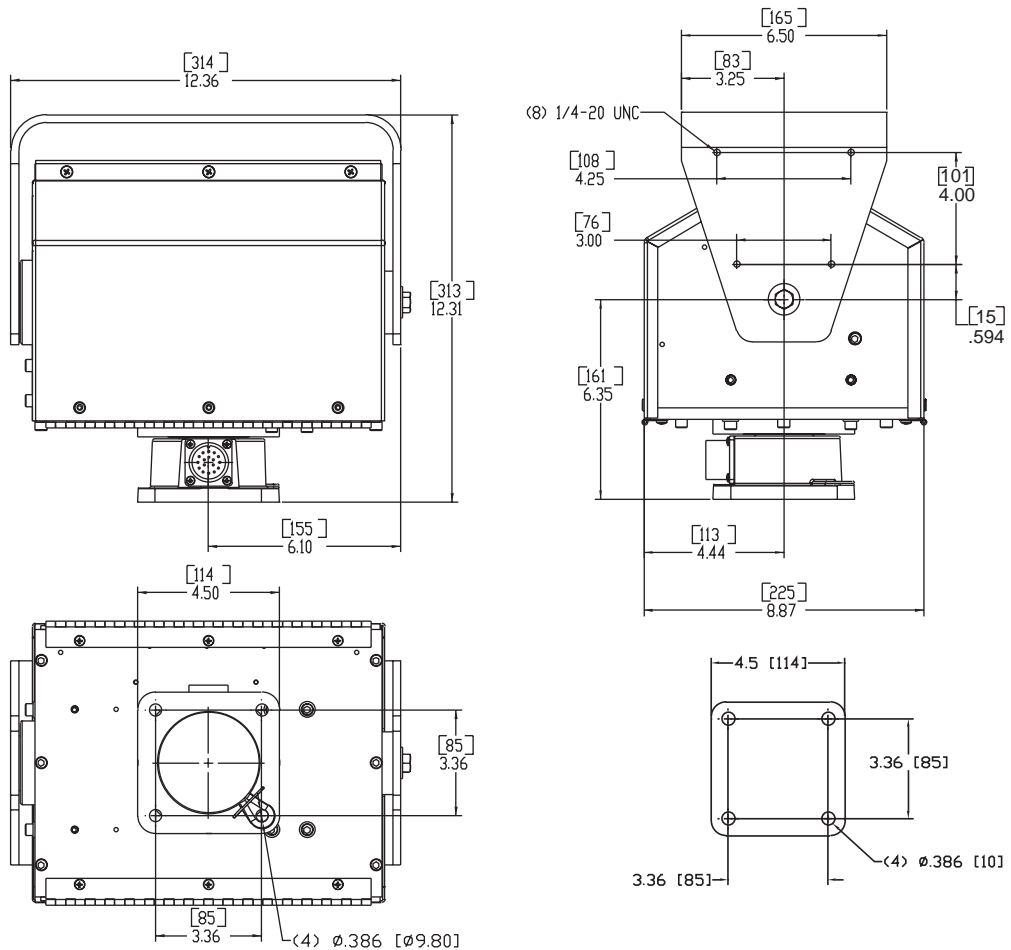
| | <u>24VAC</u> | <u>115VAC</u> |
|--|---|--|
| Voltage | 24VAC | 115VAC |
| Load Capacity | 90 lbs. (41 kg) | 90 lbs. (41 kg) |
| Duty Cycle | Intermittent | Intermittent |
| Pan Range | 435° (±217.5°) | 435° (±217.5°) |
| Pan Speed Range (± 1°) | 8° / sec. | 8° / sec |
| Pan Torque | 30 foot-pounds | 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.