

### MPT-90

#### PAN & TILT POSITIONERS



The MPT (Moog Pan and Tilt) Positioner Series leverages the strength and reliability of Moog legacy products and is improved with an enhanced electronics package offering new advantages to mission critical applications.

MPT Positioners are equipped with an integrated Health and Usage Monitoring System (HUMS). This provides intelligence to users regarding the condition of payloads, allowing for preventative maintenance to extend the life of critical equipment. An embedded web server enables easy discovery and control of all positioners and integrated components on a network thereby eliminating the need for 3rd party software. Expanded velocity control offers the MPT finer resolution of speed and acceleration control, ultimately improving tracking and scaling applications. Users will enjoy the capacity of multiple configurable communication ports for convenient payload integration and communication.

#### KEY FEATURES

##### Control and Configurability

- Embedded web server
- Serial or Serial over IP control up to 99Hz
- Health and usage monitoring
- HD-SDI slip ring models available
- Continuous Rotation available
- Multiple payload communication ports: 4 configurable serial, 2 TTL and 1 IP port
- 10-bit linear response velocity control
- Standardized connectors
- GPS capability

##### Robust and reliable mechanical design

- Payload capacity up to 100 pounds
- Provides up to 90 foot pounds of elevation torque
- Versatile platform design for ease of customization
- Tabletop design accommodates a wide variety of payloads



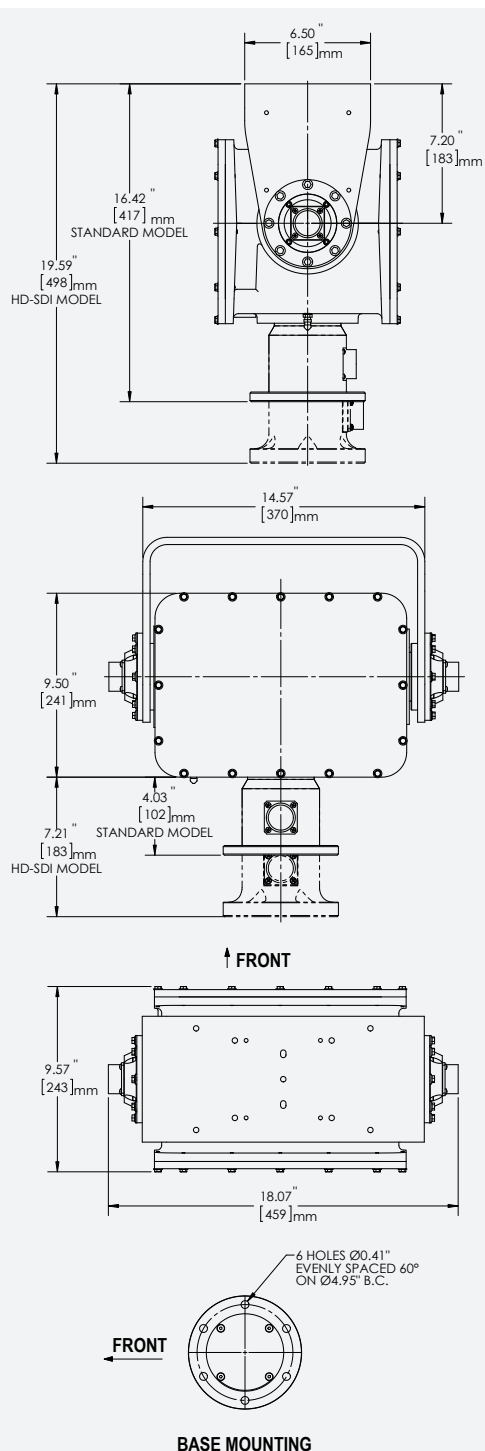
## MPT-90

### SPECIFICATIONS

Payload Capacity:	100 lb
Payload Rated Load Torque (Elevation):	90 lb-ft (122 N-m)
Positioner Power Consumption	
Max (simultaneous P&T move):	4.5 A peak, 3 A continuous
Standby (Idle, w/o heater):	650 mA.
Heater Power (switchable):	100W
Operating Voltage Range: 24VDC (+4/-0 VDC):	24 - 28 VDC Nominal, up to 70V capable
Azimuth - Pan	
Range of Travel:	Continuous, 435° models available
Speed: (@ rated load, nominal voltage):	0.005°/s to 25°/s
Elevation - Tilt	
Range of Travel:	180° (± 90° from horizon)
Speed: (90 lb-ft load):	0.005°/s to 8°/s
Minimum Incremental Move (Az and/or El):	0.01°
Rotation Limits	
Software Adjustable Limits:	Individually adjustable azimuth and elevation (all models)
Mechanically Adjustable Switches:	Individually adjustable azimuth & elevation (435° model), Adjustable elevation (continuous rotation models)
Position Feedback	
9000 Line Encoder:	Azimuth and Elevation
Resolution:	0.01°
Position Repeatability:	0.05°
Environmental:	IP67
Operating Temperature	
without heater:	-15°C to 55°C
with internal heater:	-30°C to 55°C
Construction:	Cast Aluminum Housing, Stainless Steel Hardware
Drive System:	1.8° stepper motors, Hardened Steel Worm Drive Geartrain
Exterior Finish:	Powder Coat White, special finishes available
Weight:	HD-SDI model: 75 lb Standard model: 70 lb
Dimensions:	HD-SDI model: 19.59"H (498 mm) x 18.07"W (459 mm) x 9.57"D (243 mm) Standard model: 16.42"H (417 mm) x 18.07"W (459 mm) x 9.57"D (243 mm)
Command and Control:	Integral Web Server
Protocol:	Moog PTCR-1000*, Pelco-D
Resolution of Velocity Commands:	10-bit, linear response
Power Outputs to Payload	
24 VDC - user on/off switchable:	5 Amp Max.**
12 VDC - user on/off switchable:	5 Amp Max.**
5 VDC - user on/off switchable:	4.8 Amp Max.**
3.3 VDC - constant power:	0.6 Amp Max.**
Health Monitoring w/Real Time Clock	
Power On and Run Time Monitoring:	Included
Voltage Monitoring:	Input and User 24V, 12V & 5V Outputs
Current Monitoring:	User 24V, 12V & 5V Outputs
Communication Interfaces to Payload	
Serial (RS232, RS422, RS485 configurable):	4
TTL:	2
IP:	1
Connector to Positioner:	53 conductor D38999
Connector to Payload:	53 conductor D38999 (x2)

\* backward compatible with PTCR-96  
 \*\* total payload current limited to 8A, power may be increased with higher supply voltage.  
 Specifications subject to change.

### DIMENSIONS



# MOOG

