

“tough tech for tough environments“

PA-R-250-8 servo-actuator

Pegasus

Actuators GmbH

data sheet - technical specifications

Supply data:

Operating voltage: 18V - 32V
Operating voltage typical: 24V
Standby current: 40mA

Input signal:

PWM signal, TTL level (standard)
PWM signal, differential (RS485 transceiver) (optional)
or RS485 data protocol (optional)

PWM parameter:

Frame rate: 2,6 - 1000ms
Valid pulse length: 1,0 - 2,0ms
left / center / right: 1,0ms - 1,5ms - 2,0ms

Position feedback:

analog, differential: 0-5V
Scale factor: 27.78 mV/deg.

Performance data:

Stall torque: > 500Ncm (> 710 oz-in.)
Rated torque^{**}: 300Ncm (425 oz-in.)
Speed at rated torque: 125°/sec.
No load speed: 205°/sec.
Gear train backlash: < 0,5°
Travel angle: ± 90° (-5%)
Maximum travel angle (optional): ± 170° (-5%)
Slip clutch lock out momentum: 500Ncm (710 oz-in.) +20%
Peak current - short time: 1760mA
Stall current - continuous: 780mA (limited)
Minimum detectable signal step: max 0,25µsec. (adjustable)
Weight: 285g (10,05 oz)

^{**}according to specifications of Pegasus Actuators GmbH
(please inquire the test-specifications)

Environmental data:

Axial load on output shaft: < 100N
Lateral load on output shaft: < 300N
Operating temperature: -40°C - +70°C (-40°F - +158°F)
Storage temperature: -40°C - +80°C (-40°F - +176°F)

Environmental specifications:

Vibration test: IEC 68-2-6 / EN 60068-2-6
Shock test: IEC 68-2-32
Protection class: IP67



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Main components:

Case: IP67 water and dust protected with solid vertical and horizontal 4-point fixation.
material: CNC machined aluminum, bead blasted and anodized.

Gear train: hardened steel spur gear type, 6 ball races with rigid output shaft (optional with slip clutch output shaft), output shaft with defined alignment.

Motor: Neodym-magnet BLDC motor, double ball raced.

Amplifier: digital positioning controller

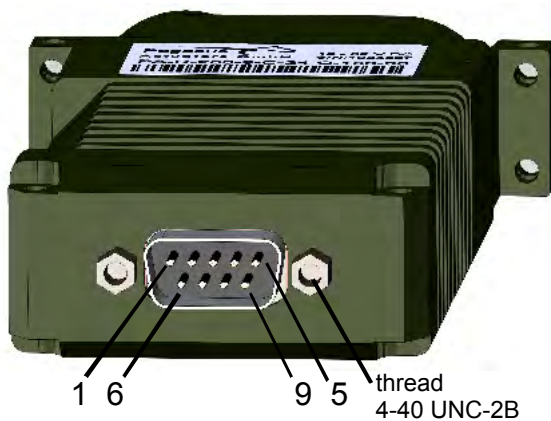
Sensor travel angle:

mechanical: 360° (no end stops)

electrical - (standard): $\pm 45^\circ$

electrical - (optional): $\pm 170^\circ$

Connector: D-Sub male, 9-pin, IP 67



Pin	PWM / TTL	PWM differential	RS485
1	Signal input A	Signal input A	Signal input A
2	NC	Signal input B	Signal input B
3	Pos. feedback A	Pos. feedback A	Pos. feedback A
4	NC	NC	NC
5	Case ground	Case ground	Case ground
6	Power input	Power input	Power input
7	Power return	Power return	Power return
8	NC	NC	NC
9	Pos. feedback B	Pos. feedback B	Pos. feedback B

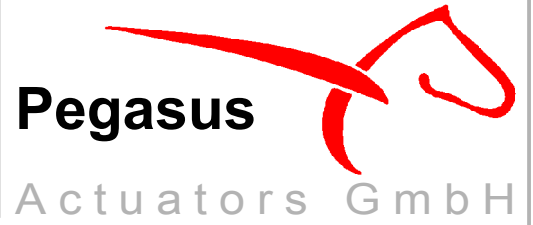
Connector: Glenair Mighty Mouse Series 801, 7-pin, IP67



Pin	PWM / TTL	PWM differential	RS485
1	Signal input A	Signal input A	Signal input A
2	NC	Signal input B	Signal input B
3	Pos. feedback A	Pos. feedback A	Pos. feedback A
4	Power return	Power return	Power return
5	Case ground	Case ground	Case ground
6	Power input	Power input	Power input
7	Pos. feedback B	Pos. feedback B	Pos. feedback B

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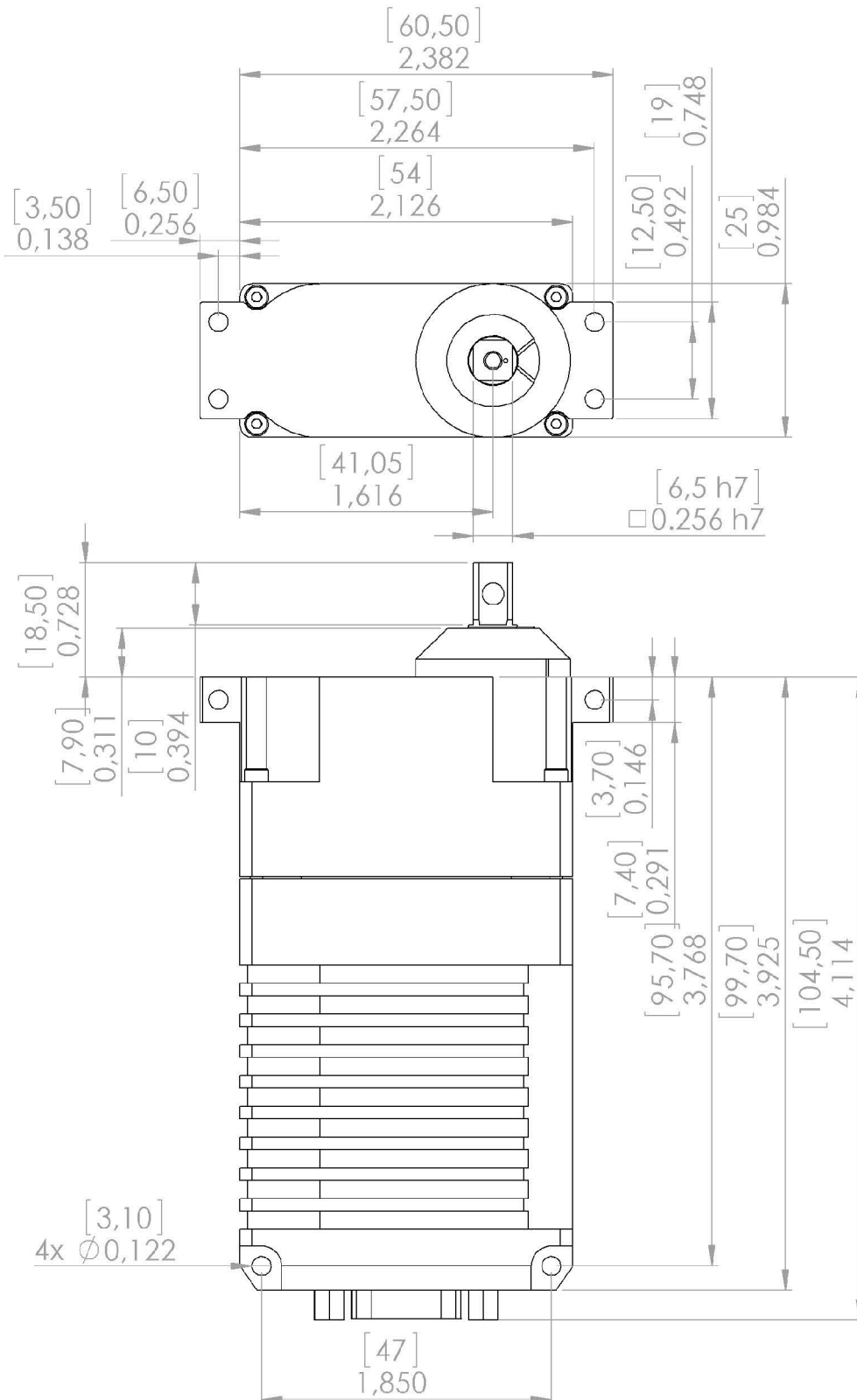
PA-R-250-8 servo-actuator



PA-R-250-8 series with D-Sub connector

dimensions are in: $\begin{matrix} [\text{mm}] \\ \text{inch} \end{matrix}$

dimensions not particulari specified are $\pm 0,1\text{mm} / 0,0039\text{inch}$



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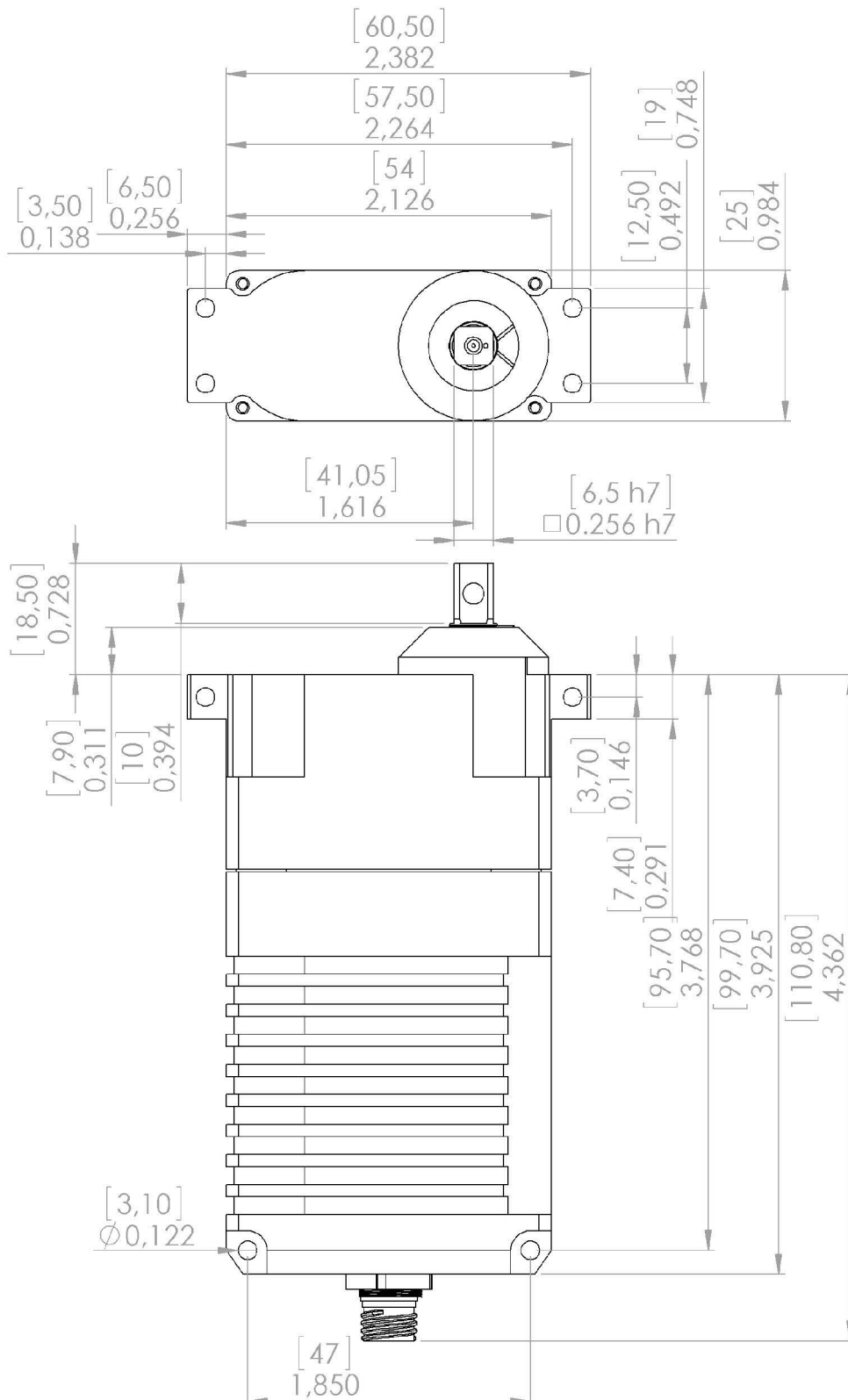
Actuators GmbH

PA-R-250-8 servo-actuator

PA-R-250-8 series with Glenair Mighty Mouse 801 connector

dimensions are in: $\begin{matrix} \text{[mm]} \\ \text{inch} \end{matrix}$

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performance graph: PA-R-250-8-X-24-X-XXX-XX

