"Tough Tech for Tough Environments"

PA-R-250-9 *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)
RS485 data protocol (optional)
CANopen CiA 402 (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: > 700Ncm (> 992 oz-in.)
Rated torque**: 400Ncm (560 oz-in.)
Speed at rated torque: 135°/sec.
No load speed: 180°/sec.
Gear train backlash: < 0,5°
Travel angle: ± 90° (-5%)
Maximum travel angle (optional): ± 170° (-5%)
PA-SC lock out momentum: 700Ncm (992 oz-in.) +20%
Peak current - short time: 3300mA
Stall current - continuous: 900mA (limited)
Minimum detectable signal step: max 0,25µsec. (adjustable)
Weight: 335g (11,82 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 slip clutch output shaft, output shaft with defined alignment.

Motor: Neodym-magnet BLDC motor, double ball raced.
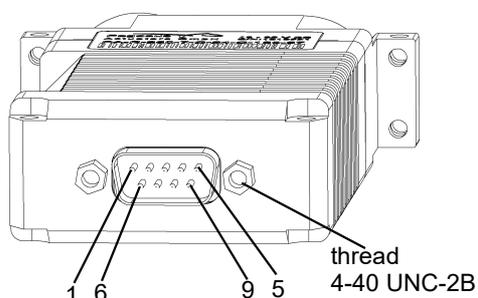
Amplifier: digital positioning controller

Sensor travel angle:
mechanical: 360° (no end stops)
electrical - (standard): ± 45°
electrical - (optional): ± 170°

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

thread
4-40 UNC-2B

1 6   9 5

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
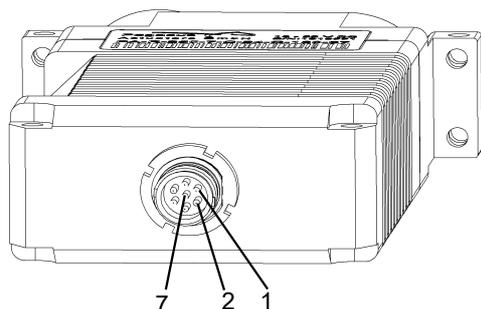
7   2 1

| 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

PA-R-250-9 series with D-Sub connector

dimensions are in: $\frac{[mm]}{inch}$
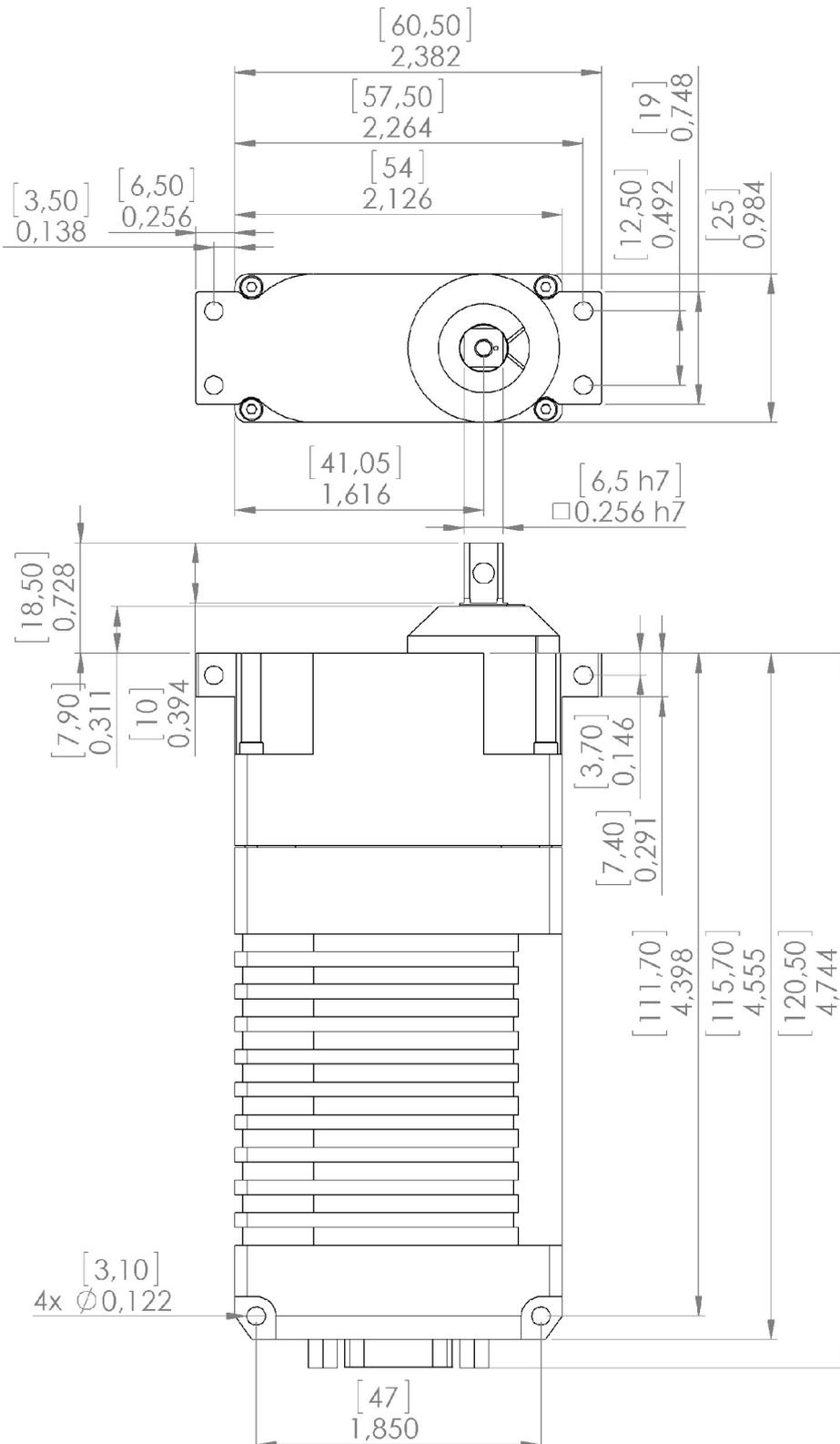
dimensions not particulari specified are ±0,1mm / 0,0039inch

PA-R-250-9 series with Glenair Mighty Mouse 801 connector

dimensions are in: [mm] / inch

dimensions not particulari specified are ±0,1mm / 0,0039inch
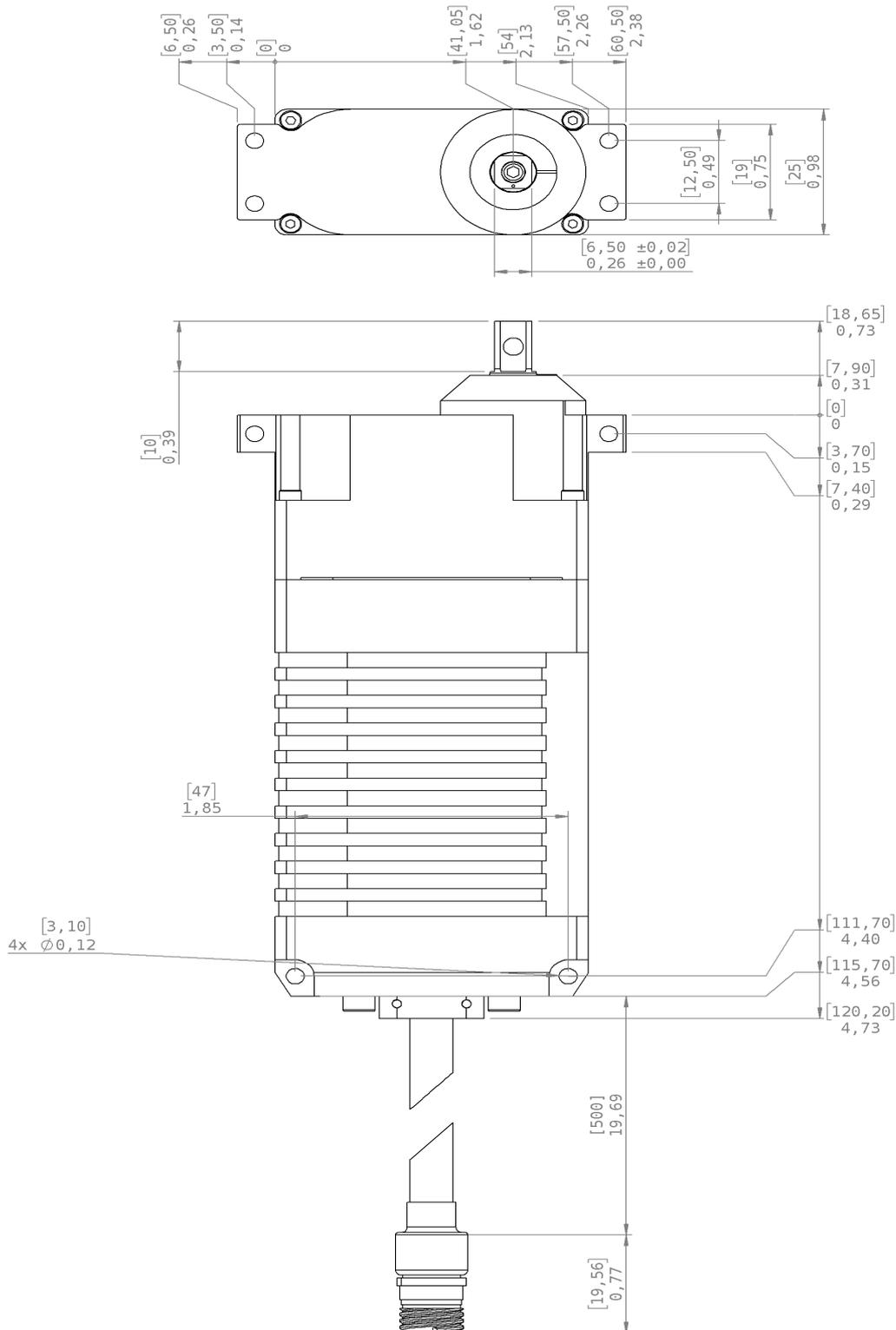
PA-R-250-9 series with Glenair Mighty Mouse 801 connector and pigtail cable

dimensions are in: [mm] / inch

dimensions not particulari specified are ±0,1mm / 0,0039inch

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rated torque /
continuous operation

short term operation

°/sec

mA

oz-in

— Speed to load @20V   — Speed to load @24V   — Speed to load @28V
— current at load (dynamic) @20V   — current at load (dynamic) @24V   — current at load (dynamic) @28V
·- current at load (static) @20V   ·- current at load (static) @24V   ·- current at load (static) @28V
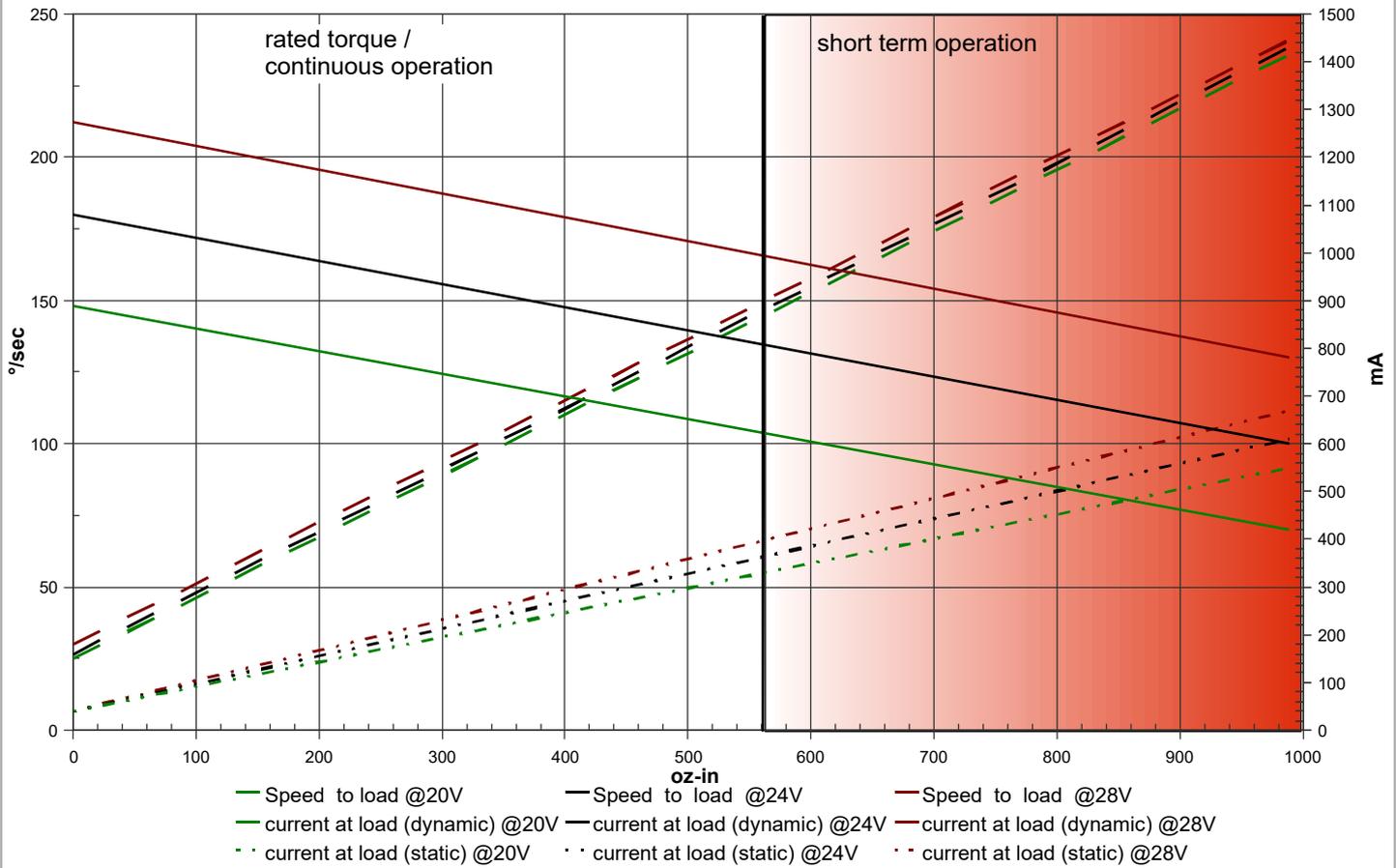
The overload protection limits the performance of the actuator during overload conditions.

rated torque /
continuous operation

short term operation

°/sec

mA

Ncm

— Speed to load @20V   — Speed to load @24V   — Speed to load @28V
— current at load (dynamic) @20V   — current at load (dynamic) @24V   — current at load (dynamic) @28V
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