

**“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<sup>\*\*</sup>: 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)

<sup>\*\*</sup>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



“Tough Tech for Tough Environments”

## PA-R-250-9 Servo-Actuator



### Data Sheet - Technical Specifications

#### 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

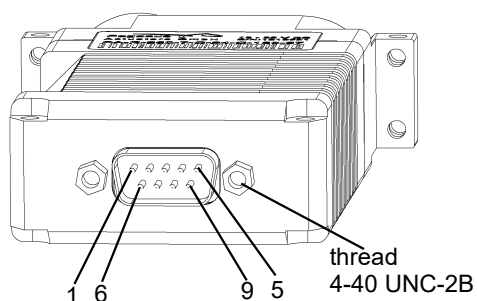
#### Sensor travel angle:

mechanical: 360° (no end stops)

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

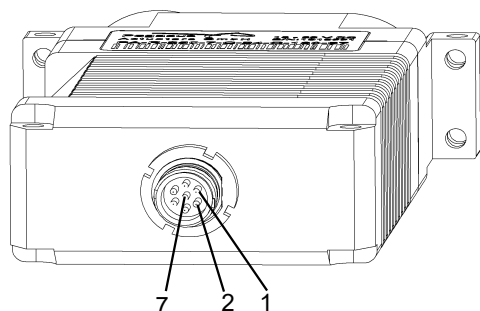
electrical - (optional):  $\pm 170^\circ$

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



Pin	PWM / TTL	PWM differential	RS485	CAN
1	SIGNAL A INPUT		SIGNAL A	CANH
2	NC	SIGNAL B INPUT	SIGNAL B	CANL
3	POSITION FEEDBACK A			
4	NC			
5	CASE GROUND			
6	VCC – POWER INPUT			
7	GND – POWER RETURN			
8	NC			
9	POSITION FEEDBACK B			

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



Pin	PWM / TTL	PWM differential	RS485	CAN
1	SIGNAL A INPUT		SIGNAL A	CANH
2	NC	SIGNAL B INPUT	SIGNAL B	CANL
3	POSITION FEEDBACK A			
4	GND – POWER RETURN			
5	CASE GROUND			
6	VCC – POWER INPUT			
7	POSITION FEEDBACK B			

**“Tough Tech for Tough Environments“**

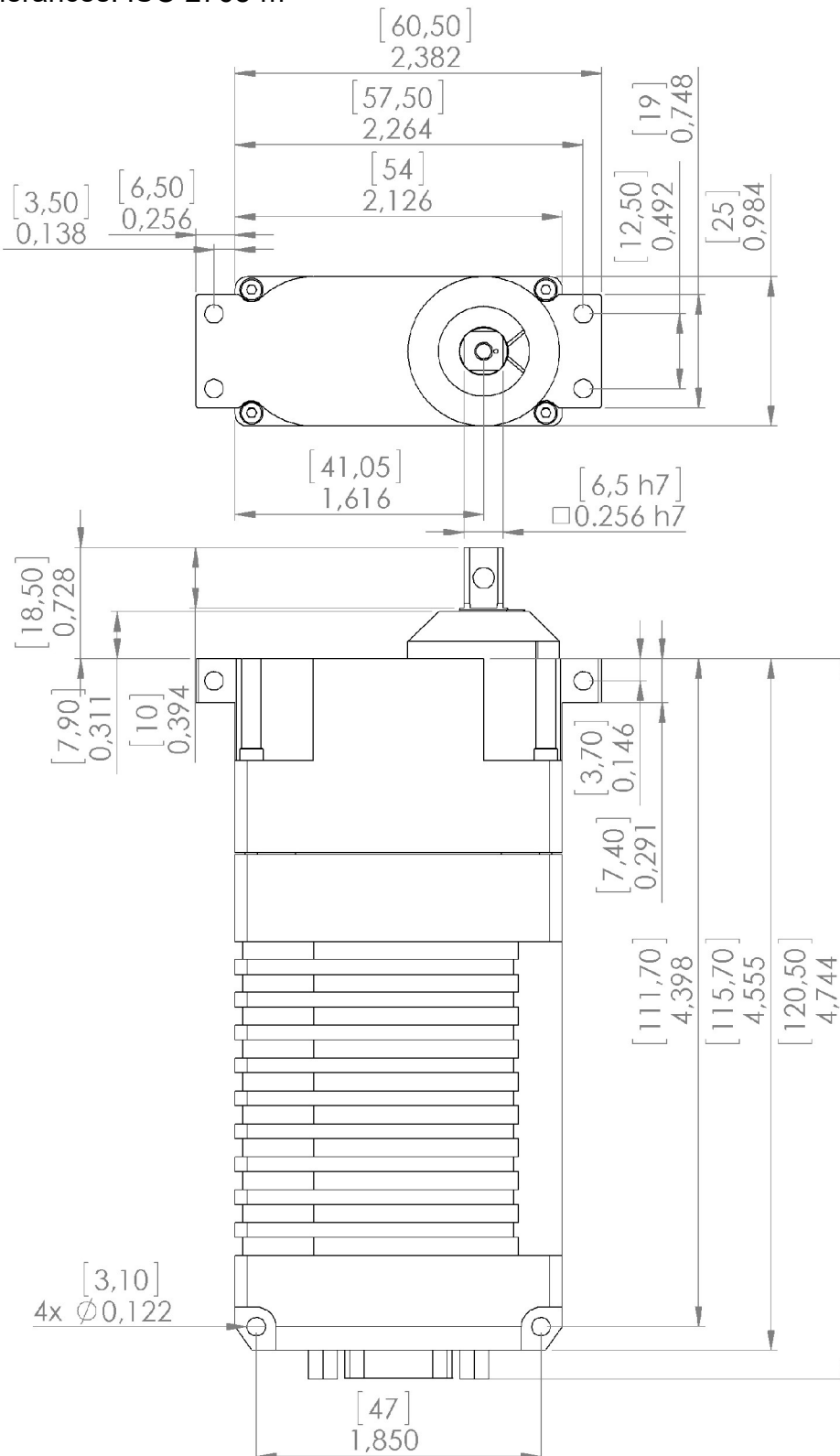
# PA-R-250-9 Servo-Actuator



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

Dimensions are in: [mm]  
inch

Tolerances: ISO 2768-m



**“Tough Tech for Tough Environments“**

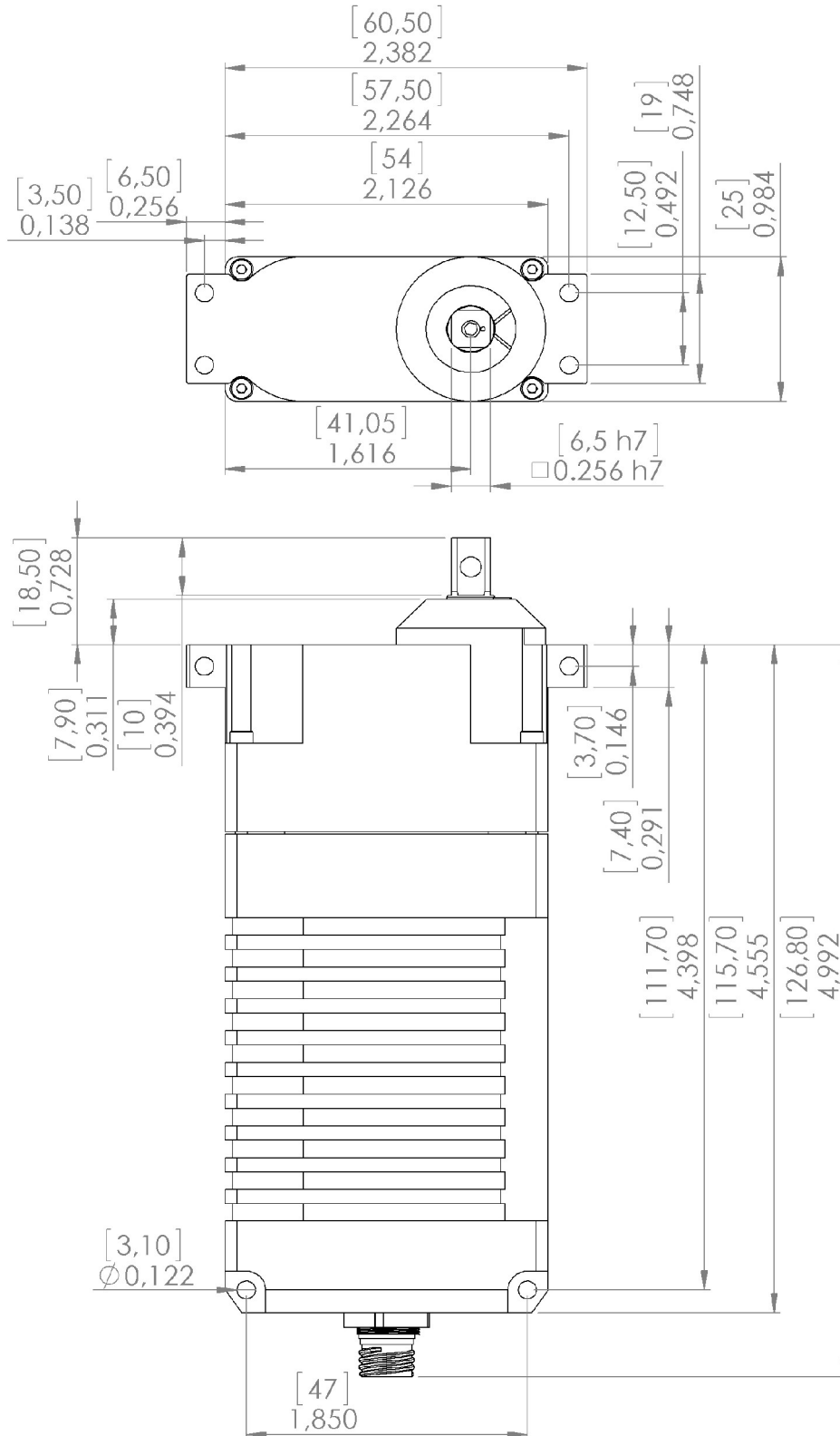
# PA-R-250-9 Servo-Actuator



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

Dimensions are in: [mm]  
inch

Tolerances: ISO 2768-m



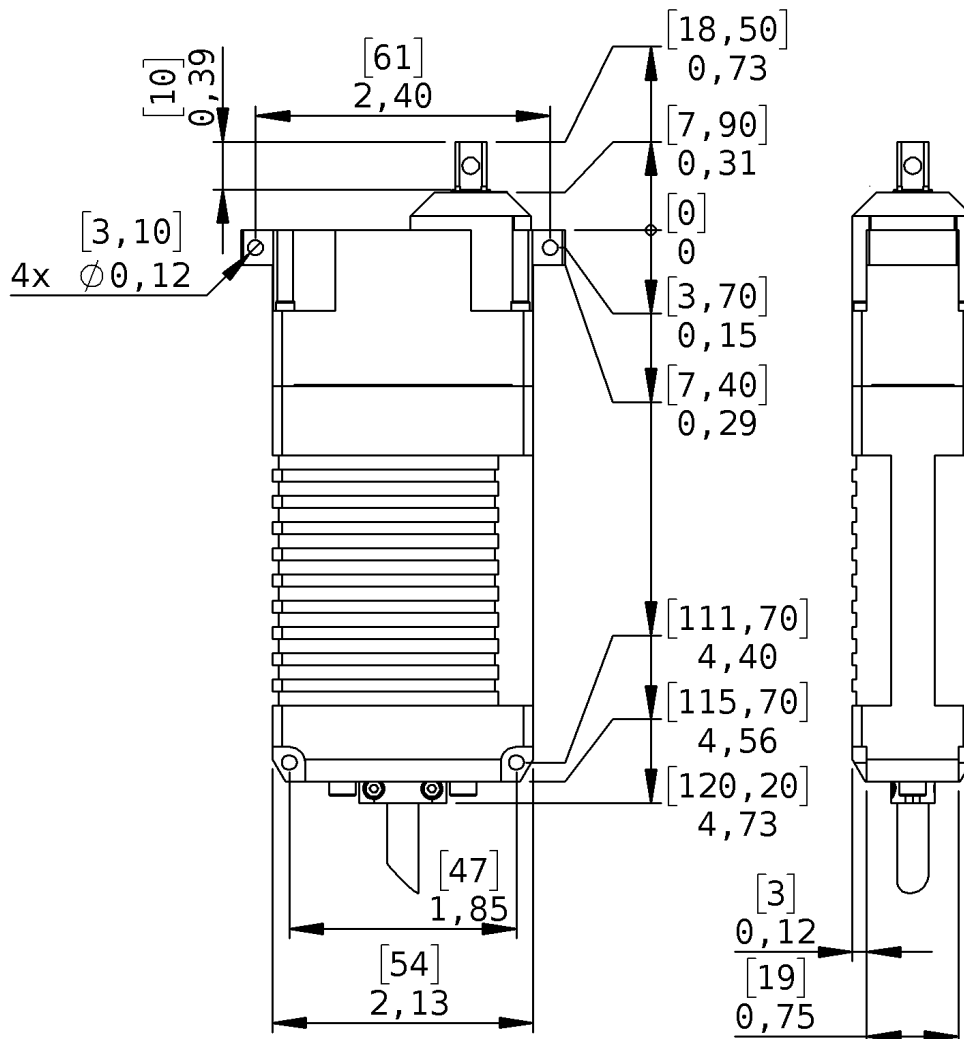
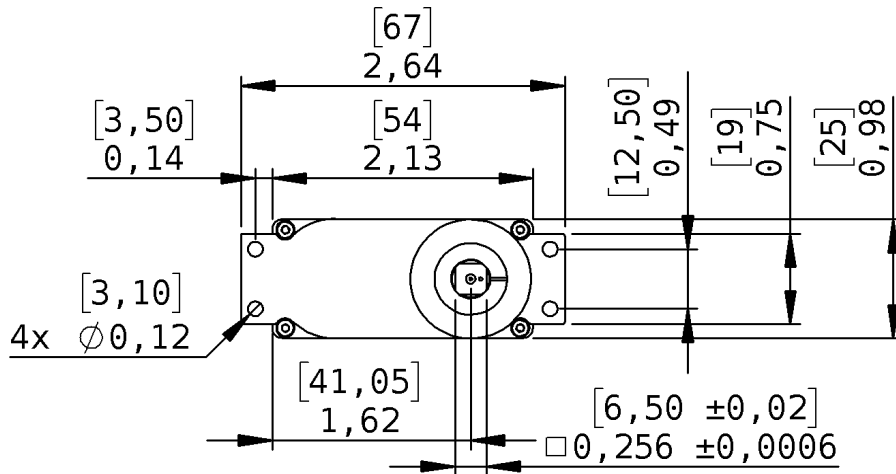
**“Tough Tech for Tough Environments”**

## PA-R-250-9 Servo-Actuator

**PA-R-250-9 series with Glenair 801 connector and pigtail cable**

Dimensions are in: [mm]  
inch

Tolerances: ISO 2768-m



**“Tough Tech for Tough Environments”**

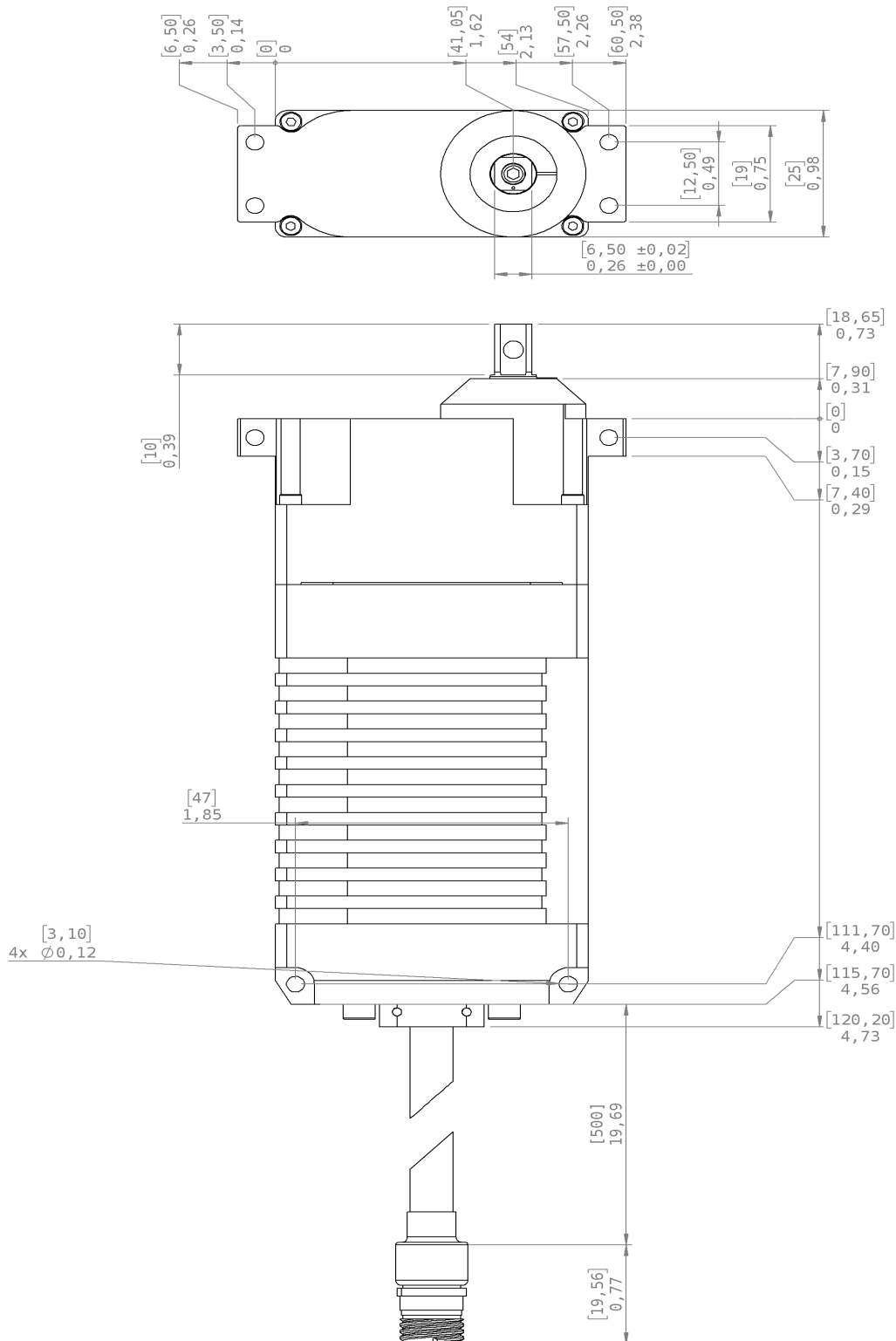
## **PA-R-250-9 Servo-Actuator**



**PA-R-250-9 series with Glenair Mighty Mouse 801 connector and pigtail cable**

Dimensions are in: [mm]  
inch

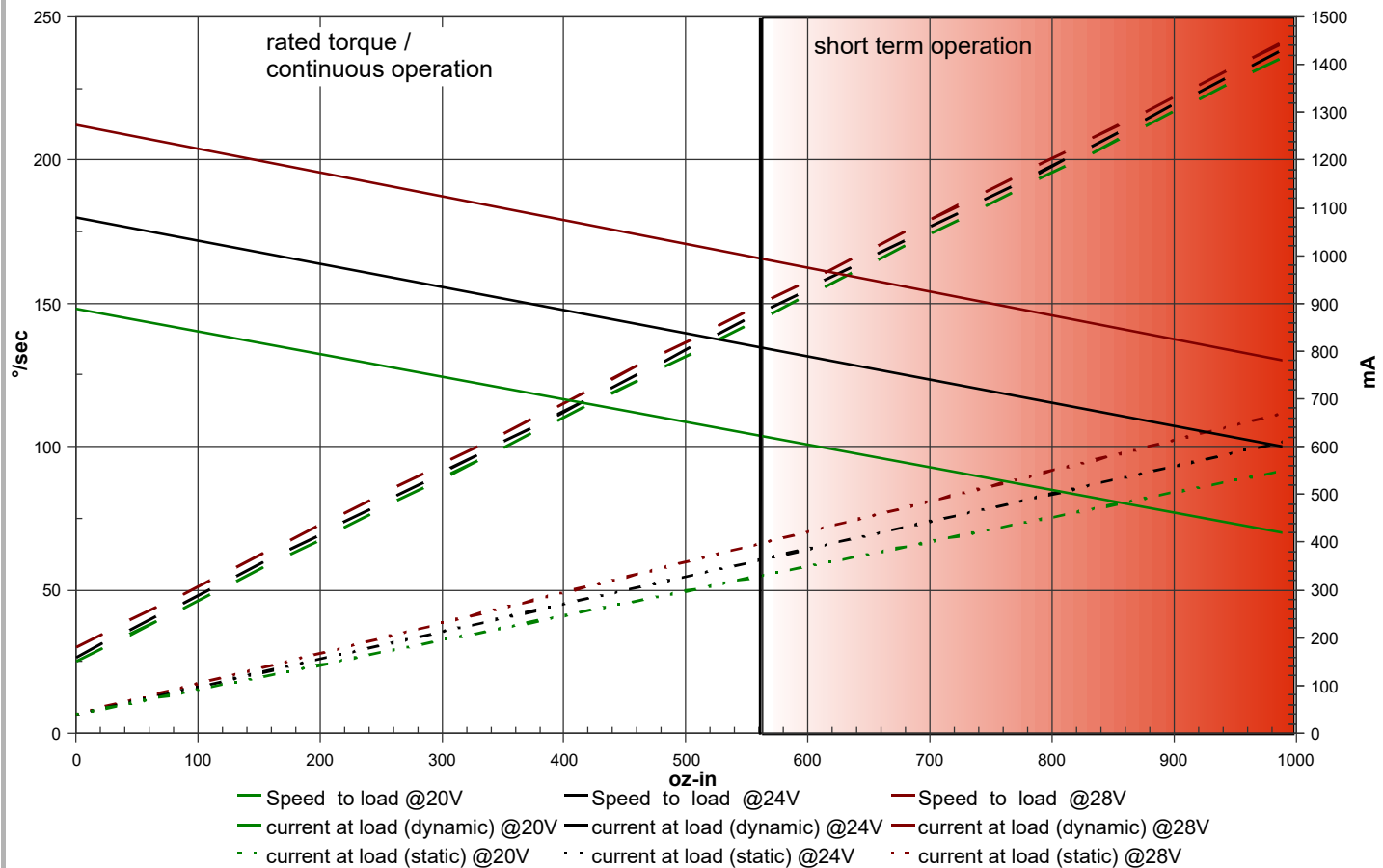
Tolerances: ISO 2768-m



“Tough Tech for Tough Environments”



# PA-R-250-9 Servo-Actuator



The overload protection limits the performance of the actuator during overload conditions.

