

**“tough tech for tough environments“**

## **PA-R-205-4 servo-actuator**

**Pegasus**

Actuators GmbH



### **data sheet - technical specifications**

#### **Supply data:**

Operating voltage: 18V - 32V  
Operating voltage typical: 28V  
Standby current: 20mA

#### **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: > 200Ncm (> 283 oz-in.)  
Rated torque\*\*: 80Ncm (113 oz-in.)  
Speed at rated torque: 240°/sec.  
No load speed: 335°/sec.  
Gear train backlash: < 0,5°  
Travel angle: ± 90° (-5%)  
Maximum Travel angle (optional): ± 170° (-5%)  
Slip clutch lock out momentum: 300Ncm (406 oz-in.) +20%  
Peak current - short time: 920mA  
Stall current - continuous: 250mA (limited)  
Minimum detectable signal step: max 0,25µsec. (adjustable)  
Weight: 125g (4,41 oz)

\*\*according to specifications of Pegasus Actuators GmbH  
(please inquire the test-specifications)

#### **Environmental data:**

Axial load on output shaft < 50N  
Lateral load on output shaft < 150N  
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 DC motor, double ball raced.

**Amplifier:** digital positioning controller

#### **Sensor travel angle:**

mechanical: 360° (no end stops)

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

electrical - (optional):  $\pm 160^\circ$

#### **Actuator connector:**

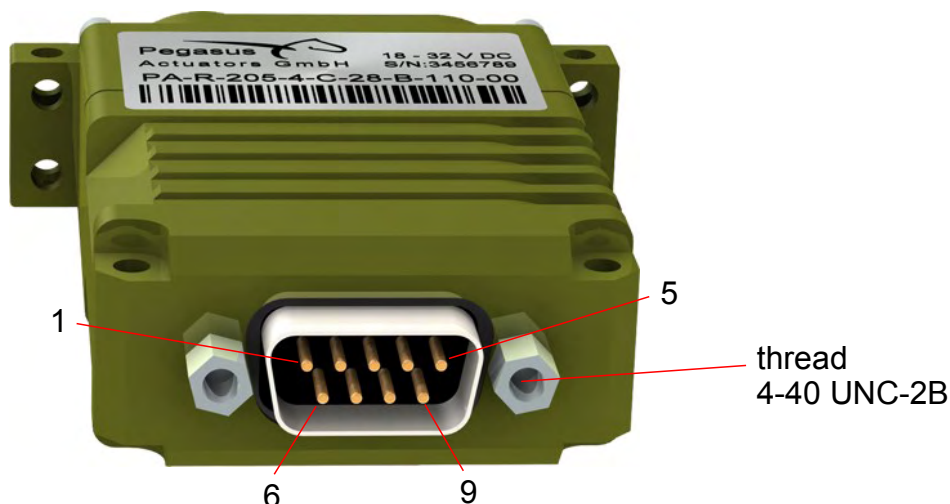
D -Sub male, 9-pin, IP 67

#### **Connector assignment PWM / TTL**

- 1 PWM signal input A
- 2 Not connected
- 3 Position feedback output A
- 4 Not connected
- 5 Case ground
- 6 Power input 18 - 32 volts (DC)
- 7 Power return
- 8 Not connected
- 9 Position feedback output B

#### **Connector assignment PWM / differential**

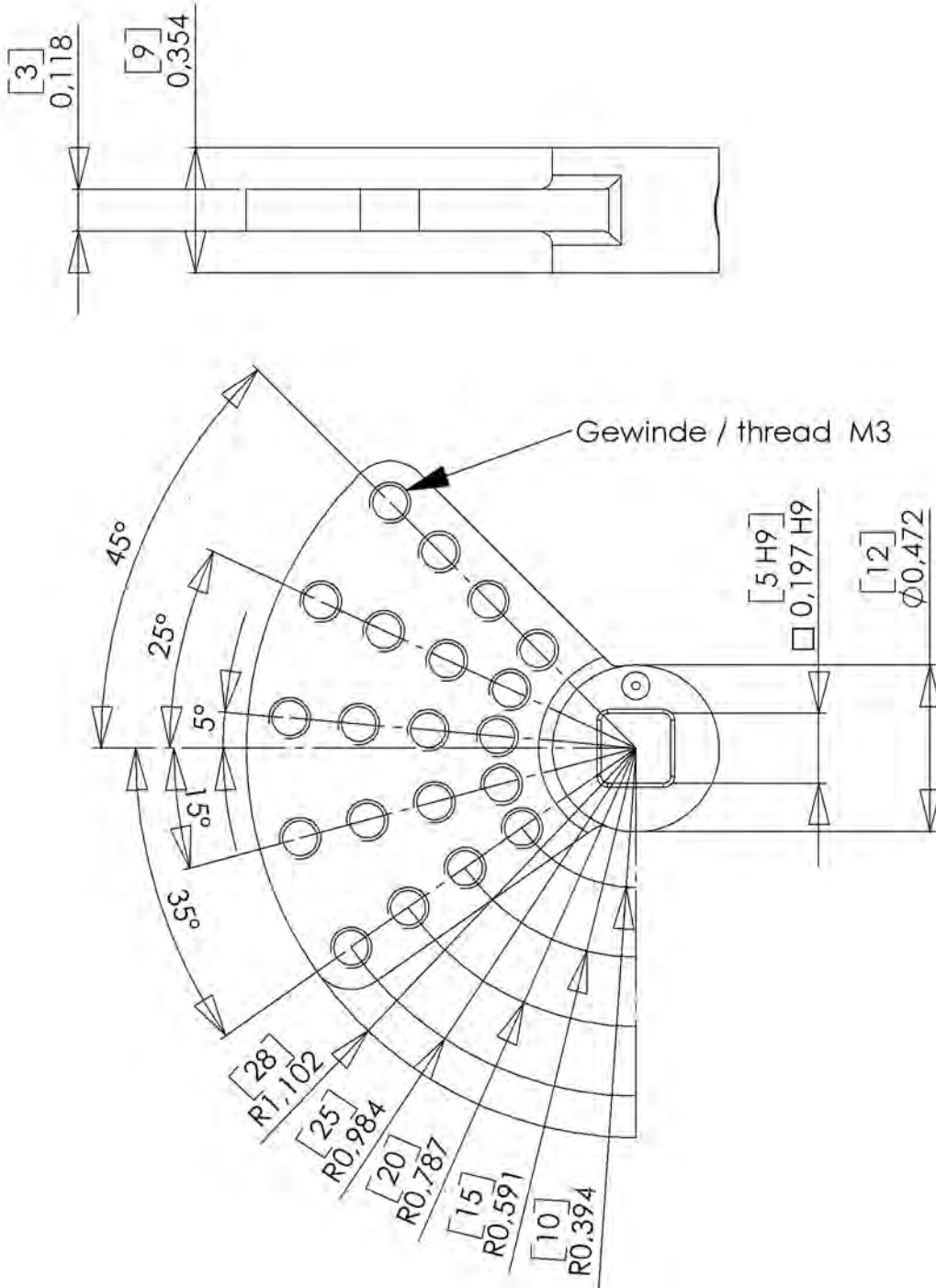
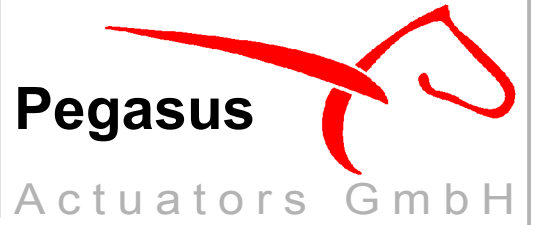
- 1 PWM signal input A
- 2 PWM signal input B
- 3 Position feedback output A
- 4 Not connected
- 5 Case ground
- 6 Power input 18 - 32 volts (DC)
- 7 Power return
- 8 Not connected
- 9 Position feedback output B





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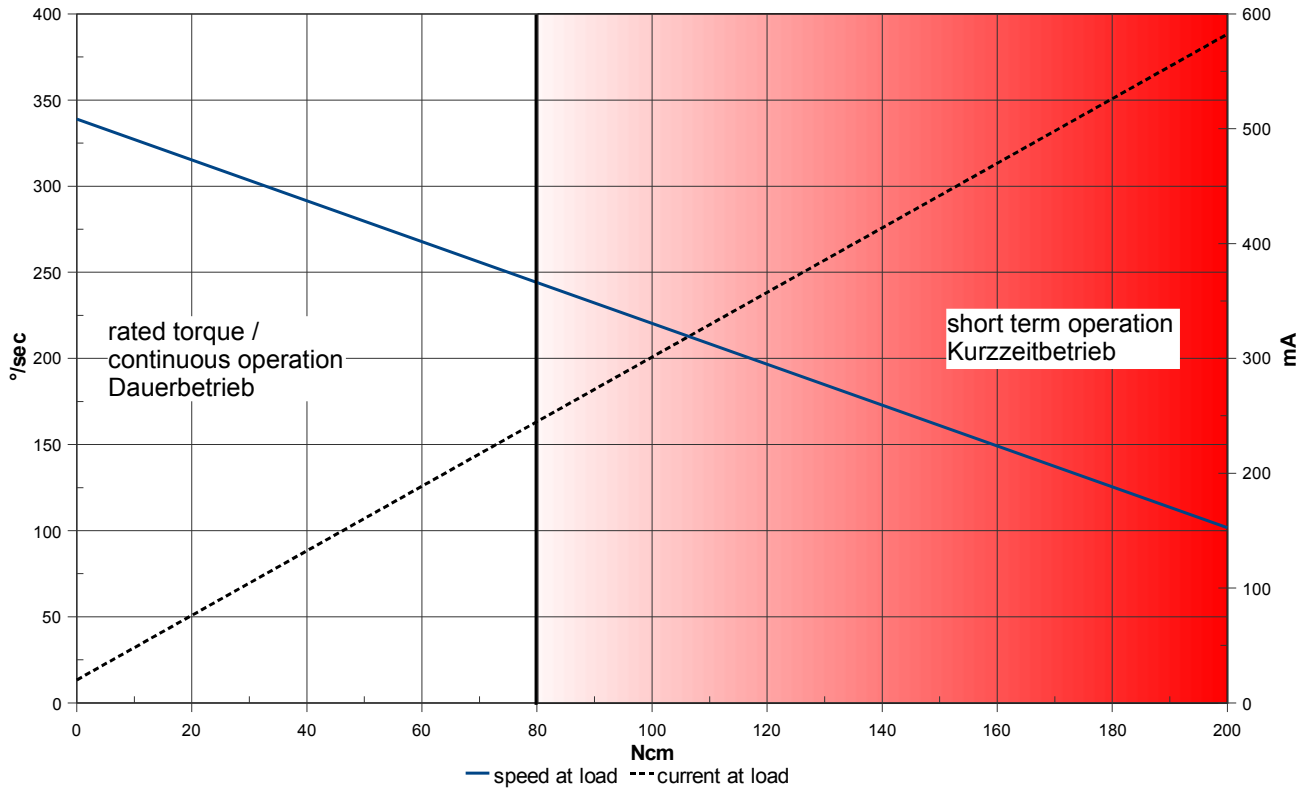
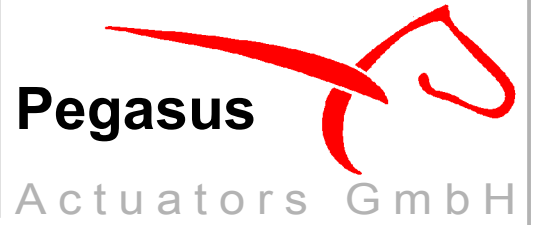
**Multi purpose output arm - PA-UL 001**



- dimensions in: [mm]  
inch
- scale 2:1

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# PA-R-205-4 servo-actuator



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

Der Überlastschutz limitiert die Leistung des Aktuators während einer Überlastungssituation.

