

“tough tech for tough environments“

PA-R-205-4 servo-actuator

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

