

PS-AMS PSL

The intelligent linear actuator up to 25 kN

Speed-controlled actuation

The output is generated by a 24 VDC motor, which is controlled by the electronics via pulse width modulation (PWM), i.e. it is operated at variable speed. Absolute-coded feedback is done with a precision potentiometer. AMS standard equipment comprises positioner and active feedback function, automatic commissioning as well as comprehensive diagnostics functions.

Parameterisation via software

Via the communication software PSCS it is possible to adjust valve-specific details, actuation thrust/torque and speed, to configure alerts, and to do a freely programmable valve curve correction.

Automatic commissioning

The automated one-key commissioning is a standard function.

Diagnostics function

The diagnostics function of the communication software PSCS allows to retrieve counting values (such as operating hours, number of start-ups and running time of motor) and sets of running parameters (such as the analogue set value input actual position value, currently required motor torque and inside temperature of the actuator). The actual values can be graphically displayed and analysed using the monitor function. Thus the AMS concept allows pro-active maintenance and as a result an increase in process safety.

Power failure backup

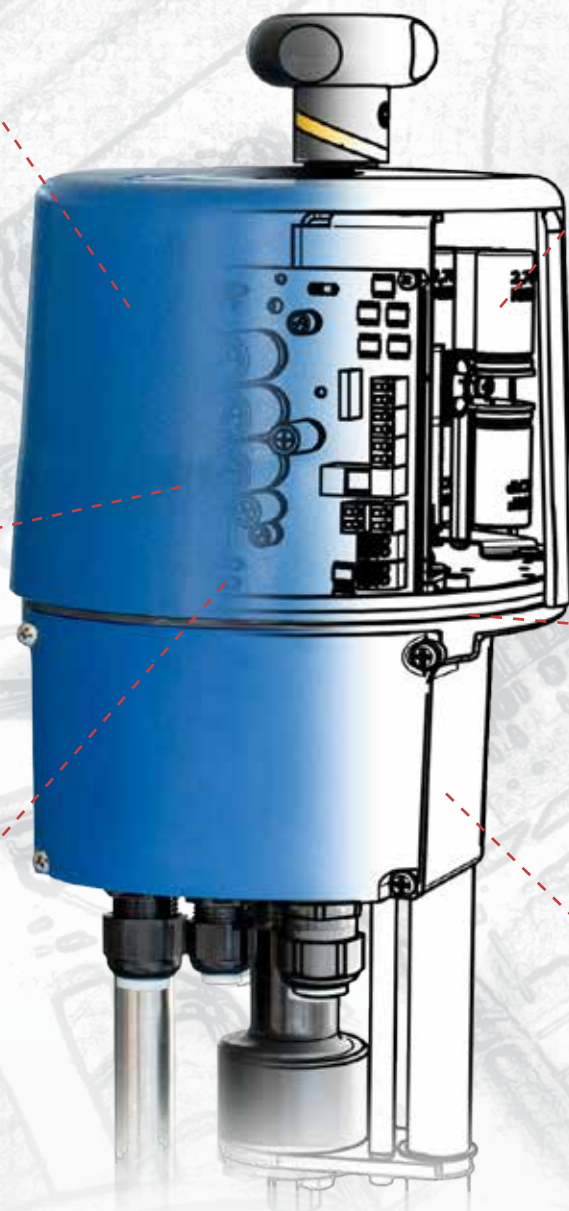
Integrated emergency supply on the basis of super-capacitors enables the actuator to perform an emergency operation in case of power failure to a freely adjustable safety position.

Mechanical design

The mechanical part of the PS-AMS actuator consists of the components of PS Automation's standard actuators with their well-proven components, namely a robust spur gear with trapezoidal thread in PS-AMS PSL. All AMS actuators are lubricated for life and therefore are maintenance-free.

Electrical connection

The electrical wiring of PS-AMS PSL is done directly to the terminal blocks in the integrated terminal box.



PS-AMS PSL

Technical Data

| | | PSL202 AMS11 | PSL204 AMS11 AMS12 | PSL208 AMS11 | PSL210 AMS11 AMS12 | PSL214 AMS12 | PSL320 PSL325 AMS13 | |
|----------------------------------|----------|--|--------------------------|-----------------|--------------------------|-----------------|---------------------------|--|
| Thrust | kN | 2,3 | 4,5 | 8 | 10 | 14 | 25 | |
| Stroke s | mm | 50 | 50 | 50 opt. 65 | 50 opt. 65 | 50 opt. 65 | 60 100 (24V) | |
| Pillar distance | mm | 100 | 100 | 100 | 100 | 100 | 155 | |
| Manual override | | Handwheel knob | | | | | Handwheel | |
| Handwheel dia. | mm | 59 | 59 | 59 | 59 | 59 | 100 | |
| Weight approx. | kg | 7 | 7 | 10 | 10 | 12 | 20 | |
| Velocity | mm /s | 0,45 - 0,9 | 0,45 - 0,9 2,25 - 4,5 | 0,3 - 0,7 | 0,2 - 0,35 0,85 - 1,7 | 0,65 - 1,3 | 0,2 - 0,4 | |
| Power supply | | 24 V, 115 V, 230 V AC 50/60Hz, 24 V DC | | | | | | |
| Motor protection | | Electronic motor current monitoring with safety cut-off | | | | | | |
| Duty cycle as per IEC 60034-1,8 | | S2 30min S4 50% ED a 25°C | | | | | | |
| Permitted ambient temperature | | -20 to +60°C | | | | | | |
| Mounting position | | Any position, except cover pointing downwards | | | | | | |
| Conduit entries | | 2 pcs. M20, 1 pcs. M16 | | | | | 3 pcs. M20 | |
| Control options (standard) | | Analogue signal, split range, 24 V binary | | | | | | |
| Input and Output signals | | 0 (4) - 20 mA, 0 (2) - 10 V | | | | | | |
| Enclosure acc. to EN 60529 | | IP 65 opt. IP 67 | | | | IP 67 | IP 65 opt. IP 67 | |
| Cover material | | Polycarbonat, cast aluminium for stroke 65 mm or IP 67 version | | | | | Aluminium | |
| Gear case material | | High quality aluminium die casting | | | | | | |
| Pillar and feedback rod material | | Stainless steel DIN 1.4104 | | | | | | |

| 1-Phasen Wechselspannung / DC | | | | | | | | | | | | | | | | | | | | | | | 3-Phasen | | | |
|-------------------------------|-----------------------------|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1-Phase AC / DC | | | | | | | | | | | | | | | | | | | | | | | 3-Phase AC | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | L1 | L2 | L3 | PE |
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 24 V AC/DC - 230 V AC | 100 mA / 1 A | 24 VDC | max. Load / max. Load | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC | 24 V AC/DC - 230 V AC |
| Schwert-Eingang | Active Position-Überwachung | Stromrelais | Binäre Ansteuerung | Netz-Überwachung | Vorwarnung | Schwert | Zurück / Open | Weg-/Wasserpotentialfreier Kontakt | Position switch potential-free contact | Versorgungsspannung | Feldbus-Anschluss | PC Kommunikation | Interfacedrive | Versorgungsspannung | | | | | | | | | | | | |
| Set value input | Active position feedback | Monitor relay potential-free | Binary input signals | Fail safe signal | Process-Sensor | | | | | | | | | | | | | | | | | | | | | |

PS-AMS PSL linear actuators are mature and proven, robust and completely maintenance free.

With a PS-AMS PSL from PS Automation, the specialist for valve actuation, the only cost to consider are acquisition and operating costs.

There are no maintenance costs.

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