

Intelligent Quarter-Turn Actuator

**PSQ3003
AMS13**

**Positioner
integrated**

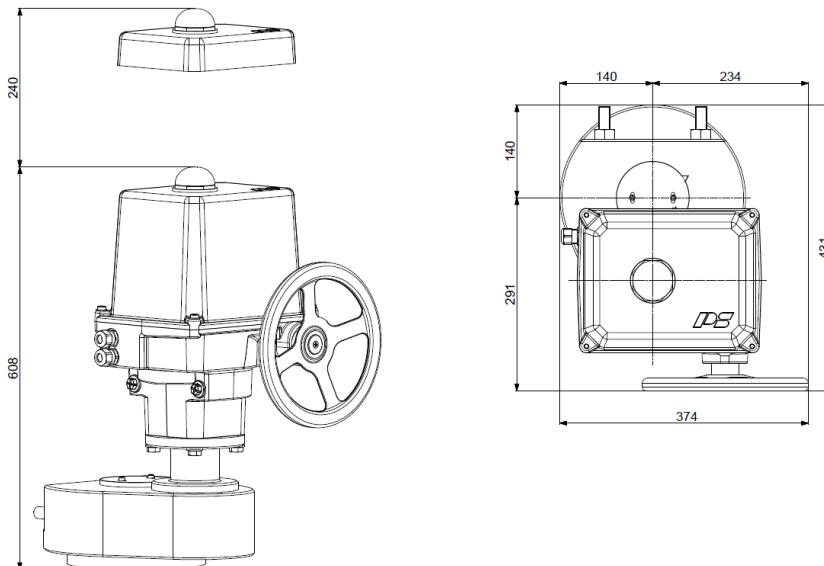
1500 - 3000 Nm
Switching torque)¹

280 s - 560 s
Op. Time/90°

**Flange
F16**

Modulating Actuator
Class C
acc. EN ISO 22153

Enclosure IP67
EN 60529



Approx. weight: 54 kg without accessories

| Operating Time/90° | 280 - 560 s (adjustable) | | | | PSQ3003 AMS13 |
|--------------------------------------|--------------------------|------------|-------------------|---------------------------------|------------------|
| Power Supply [V] | 230 VAC 1~ | 115 VAC 1~ | 24 VAC/DC | 360...575 VAC 3~) ² | |
| Normal Current) ⁴ [A] | 0,5 | 1,1 | 5,2(AC) / 3,3(DC) | 0,23) ³ | |
| Maximum Current) ⁴ [A] | 0,7 | 1,4 | 6,8(AC) / 4,2(DC) | 0,30) ³ | |
| Power Consumption) ⁵ [W] | 106 | 106 | 100(AC) / 78(DC) | 105) ³ | |

| Standard | Description | Standard Equipment |
|----------------------------|--|--------------------|
| Ambient Temperature [°C] | -20 to +60 °C | |
| Motor Protection | electronic motor current monitoring with safety cut-off | |
| Overvoltage category | II | |
| Break away force | adjustable up to +50% nominal force | |
| Duty Cycle IEC 60034-1,8 | S2 30 min S4 50% ED @ 25°C | |
| Set value and Feedback | current 0 (4)... 20 mA, voltage 0 (2)... 10 V adjustable, split-range operation possible | |
| Binary control | 24 V - 230 V for ON/OFF control (min. duration of pulse 1s) | |
| Valve Positioner Function | deadband adjustable from 0.5 .. 5%, shut-off minimum at torque switching | |
| Automatic Start-up | Recognizing the end position(s) and autoscaling set and feedback values | |
| Internal Fault Monitoring | Torque, set value, temperature, power supply, deviation of end positions, adjustable actions and signalisation | |
| Fault Indication Relay FIR | potential-free opening contact provides a freely definable collective fault signal | |
| Diagnostics Function | Stores number of motor starts, motor and total running time. Rolling data storage of set value, feedback value, torque, temperature and status | |
| Communication Interface | for parametrisation and diagnosis with USB data cable and software PSCS | |
| Cable Glands | 2 threaded holes ISO M20 x 1,5 (cable glands are not included) | |

)¹ = Permissible average thrust over the entire travel is 50% of the max. thrust

)³ = at 400 V 3 phases and 50 Hz

)⁵ = at switching torque, data can change depending on accessories

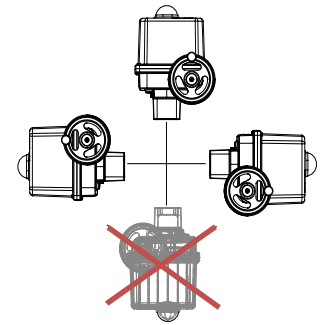
)² = at nominal force

)⁴ = Data can change depending on accessories

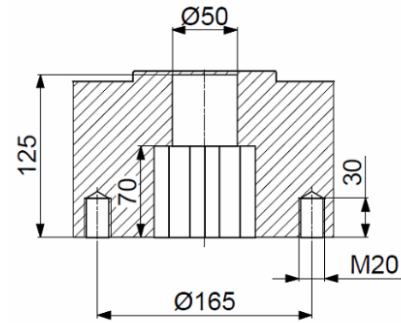
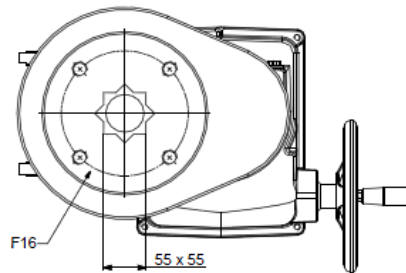
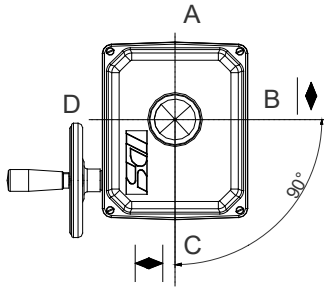
Electrical Connection Plan

Mounting Position

| 1-Phasen Wechselspannung / DC 1-Phase AC / DC | | | | | | | | | | | | | | | | | 3-Phasen 3-Phase AC | | | | | | | | | | | | | | | | | | | |
|--|------------------------------|---------------------------|--------------------|---------------------|--------------|--|---|---------------|-----|--------------|-------------------------|-------------------------|----------------------|--------------|---------------|-----|------------------------|------------|----------|----------|----------|----------|---------------------------------------|------------------|-------------------|-----------------|----------------------|----------------------|-------------------|-------------------|-----------------|-------------------------------------|---|---|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | X6 | | | | | | 22 | 23 | RJ-45 TTL | | | | Taster Button | | | | | | | |
| ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | 1 | 2 | 3 | 4 | 5 | 6 | ↔ | ↔ | ↔ | ↔ | L1 | L2 | L3 | PE | ↔ | ↔ | ↔ | ↔ | | |
| +0(2) - 10 V | +0(4) - 20 mA | GND | +0(2) - 10 V | +0(4) - 20 mA | GND | max. Last / max. Load 100 mA bei / at 24 VDC | | L+ AU/F/ OPEN | N/- | L+ ZU/ CLOSE | L+ (24V AC/DC - 230VAC) | N- (24V AC/DC - 230VAC) | 21 - 40 VDC / 100 mA | +0(2) - 10 V | +0(4) - 20 mA | GND | (Option) | (Option) | (Option) | (Option) | (Option) | (Option) | L+ (siehe Typenschild/ see tag plate) | PE | (Option) | (Option) | (Option) | (Option) | 400VAC | 400VAC | 400VAC | Schutzleiter / protective conductor | | | | |
| Sollwert-Eingang | Aktive Positions-rückmeldung | Störmeldung potentialfrei | Binäre Ansteuerung | Netz-ausfall-signal | Ver-sor-gung | Istwert | | | | | | | | | | | Zu / Closed | Auf / Open | | | | | Versorgungs-spannung | Feldbus-Anschluß | PC Kommu-nikation | Inbetrieb-nahme | Versorgungs-spannung | Power supply voltage | Feldbus interface | PC commu-nication | Com-missio-ning | Schaltnetzteil | | | | |
| Galvanisch getrennt / Galvanically isolated 1 kV | | | | | | | | | | | | | | | | | Process-Sensor | | | | | | | | | | | | | | | | | | | |



Mechanical Connection



| Accessories/Options | Code | Description |
|------------------------------|----------|---|
| Add'l Position Switches | 2WE | Potential-free additional position switches with silver contacts (0.1 A - 10 A switching current) |
| Add'l Position Switches Gold | 2WE Gold | Potential-free additional position switches with gold contacts (0.1 mA - 100 mA switching current) |
| Integrated process | PSIC | Enables the autonomous control of a process so that an external controller is not required |
| Fail-Safe* | PSCP | Emergency power supply based on supercapacitors, safety position OPEN, CLOSED or free defined position |
| Fieldbus Interface* | | Digital transmission of nominal and actual value per mill or percent, report of monitoring and diagnostic data using Profibus DP (PSPDP) or CANOpen (PSCA) interfaces, additional interfaces available on request |
| Local Control* | PSC.2 | Illuminated display to show the actuator status and lockable selector to switch between modes: automatic, manual process ON/OFF, STOP and parameter menu. Control buttons for manual movement, menu operation and adjustment of parameters, display of diagnostic information |
| Remote Local Control | | mounting separately from the actuator (incl. 10 m connection cable) |
| Data Cable | PSCS-USB | USB data cable enables the communication between the actuator and a PC by using the software PSCS |
| Fail-Safe Port* | FSP | Signal port to drive to a „safety position“, selectable fail-safe position, standard 24 - 230 V |
| Heating Resistor | HR | Heating resistor to prevent condensation |
| Terminal Box* | | Plug and socket in an IP68 box |

*not retrofittable

For more information and accessories, please visit our website www.ps-automation.com!

Subject to changes!