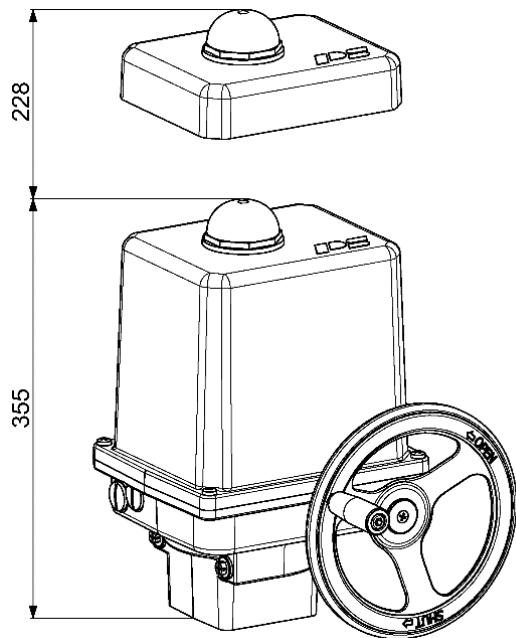


Intelligent Quarter-Turn Actuator



Approx. weight: 13 kg without accessories

Positioner integrated

125 - 250 Nm

Switching torque)¹

16 s - 120 s
Op. Time/90°

Flange F07 + F10

Modulating Actuator
Class C
acc. EN ISO 22153

Enclosure IP67
EN 60529

**PSQ203
AMS11**

**PSQ203
AMS12**

Standard Equipment

| Operating Time/90° | 60 - 120 s (adjustable) | | | | PSQ203 AMS11 | |
|--------------------------------------|--|-------------------|-------------------|---------------------------------------|-------------------------|--|
| Power Supply [V] | 230 VAC 1~ | 115 VAC 1~ | 24 VAC/DC | 360...575 VAC 3~)² | | |
| Normal Current) ⁴ [A] | 0.24 | 0.48 | 2.3(AC) / 1.4(DC) | 0.17) ³ | | |
| Maximum Current) ⁴ [A] | 0.31 | 0.62 | 3.0(AC) / 1.9(DC) | 0.2) ³ | | |
| Power Consumption) ⁵ [W] | 41 | 41 | 38(AC) / 34(DC) | 45) ³ | | |
| Operating Time/90° | 16 - 32 s (adjustable) | | | | PSQ203 AMS12 | |
| Power Supply [V] | 230 VAC 1~ | 115 VAC 1~ | 24 VAC/DC | 360...575 VAC 3~)² | | |
| Normal Current) ⁴ [A] | 0.59 | 1.2 | 5.6(AC) / 3.5(DC) | 0.42) ³ | | |
| Maximum Current) ⁴ [A] | 0.76 | 1.5 | 7.3(AC) / 4.6(DC) | 0.5) ³ | | |
| Power Consumption) ⁵ [W] | 115 | 115 | 108(AC) / 84(DC) | 110) ³ | | |
| Standard | Description | | | | | |
| Ambient Temperature [°C] | -20 to +60 °C | | | | | |
| Motor Protection | electronic motor current monitoring with safety cut-off | | | | | |
| Oversupply 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

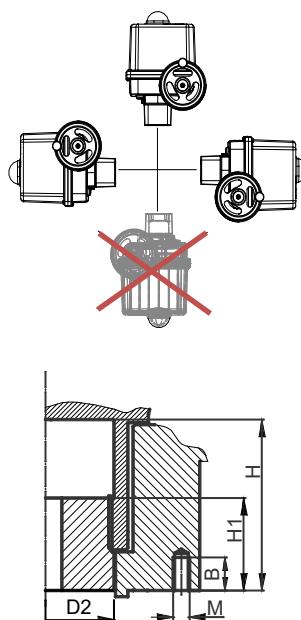
)⁴ = Data can change depending on accessories

Electrical Connection Plan

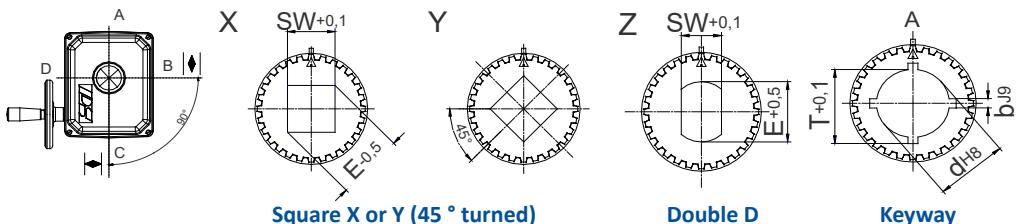
Mounting Position

| 1-Phasen Wechselspannung / DC 1-Phase AC / DC | | | | | | | | | | | | | | | | | 22 | 23 | (Option) | RJ-45 TTL | Taster Button | |
|--|------------------------------|------------------------------|----------------------|--------------------|-------------|--------------|-------------|----------|-------------|-------------|---------|--------|---------------|---------------------|---------------------|---------------------|--|--------------------|-------------------------------------|-----------------|---------------|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | X6 | 22 | 23 | (Option) | RJ-45 TTL | Taster Button |
| ↑ | ↑ | ↑ | ↓ | ↓ | ↓ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↓ | ↑ | ↑ | ↑ | PE | (Option) | (Option) | | | |
| GND | GND | GND | + 0.4) | - 20 mA | + 0.4) | - 10 V | + 0.2) | - 100 mA | + 0.2) | - max. Load | N- | N+ | 24 VDC / OPEN | 24 VAC /DC - 230VAC | 24 VAC /DC - 230VAC | 24 VAC /DC - 230VAC | (Option) | L+ | (sleine Typenschild/ see tag plate) | (Option) | | |
| + 0.4) | - 20 mA | + 0.4) | - 10 V | + 0.2) | - 100 mA | + 0.2) | - max. Load | + 0.2) | - max. Load | + 0.4) | - 20 mA | + 0.2) | - 10 V | + 0.2) | - 10 V | (Option) | (Option) | (Option) | (Option) | | | |
| Galvanisch getrennt / Galvanically isolated 1 kV | | | | | | | | | | | | | | | | | | | | | | |
| Sollwert-Eingang | Aktive Positions-rückmeldung | Stromleitung | Binäre Ansteuerung | Netzausfall-signal | Versor-gung | Istwert | | | | | | | | | | | Versorgungs-spannung | Feldbus-Anschluß | PC Kommuni-kation | Inbetrieb-nahme | | |
| Set value input | Active position feedback | Monitor relay potential-free | Binary input signals | Fail safe signal | Supply | Actual value | | | | | | | | | | | Power supply voltage | Fieldbus interface | PC communication | Com-missioning | | |
| | | | | | | | | | | | | | | | | | Position switch potential-free contact | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

S-256-292_B



Available Drive Bushes



| | F07 | F10 |
|----|-----|-----|
| D2 | 47 | 47 |
| H | 60 | 60 |
| H1 | 35 | 35 |
| M | M8 | M10 |
| B | 16 | 20 |

Please check the drive bushes datasheet for the available sizes!

Other customized drive bushes on request!

| | | | |
|----------------------------|------------------------------|----------|---|
| Accessories/Options | 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 |
| | Corrosion Protection | K2 | Increased corrosion protection incl. heating resistor |
| | IP68 | | Increased enclosure IP68) ^b |
| | Heating Resistor | HR | Heating resistor to prevent condensation |
| | Terminal Box* | | Plug and socket in an IP68 box |

*not retrofittable

)^b = IP68, no ingress of dust and suitable for continuous immersion in water up to 6 m and 96 h

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

Subject to changes!