

Angle Seat Motor Valve with Flanges, compact 7231

DN 15 up to DN80

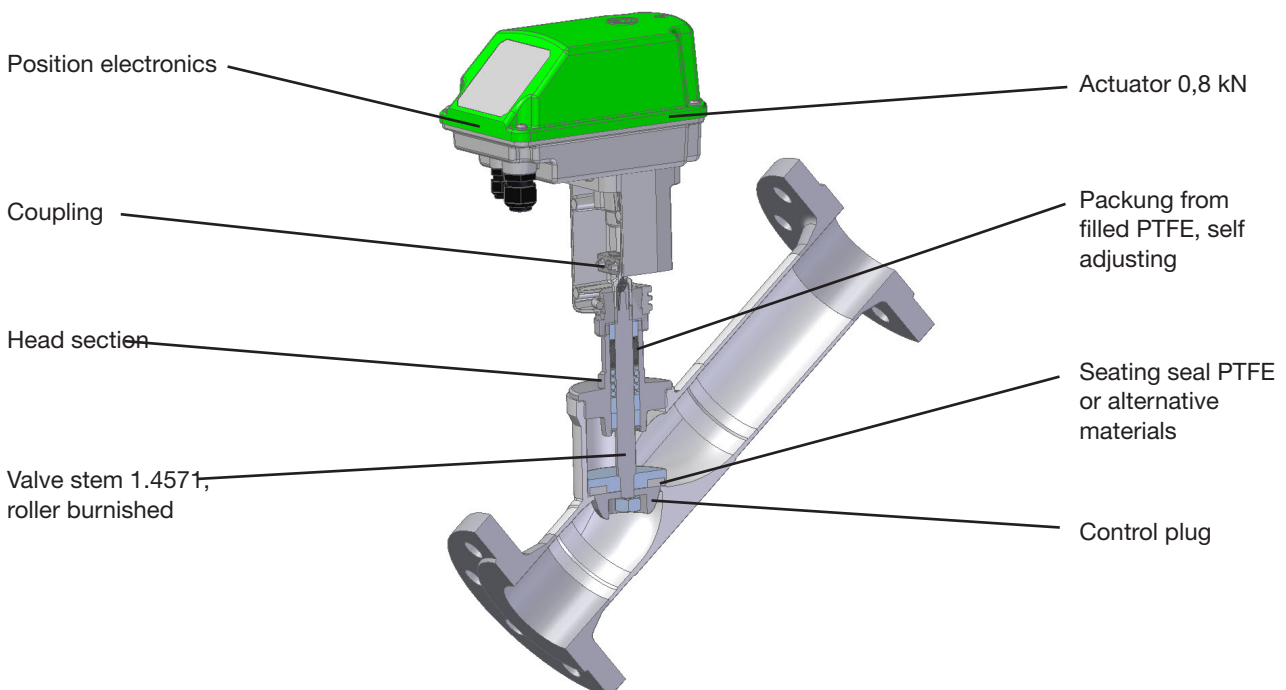
Motor valve for on/off- and modulating operation for neutral and aggressive media.

- Compact design
- Self calibration
- Unaffected by lightly contaminated media
- For temperatures from -30 °C up to +200 °C
- Working pressure up to 40 bar
- Versatile actuator options
- Actuators with control function also available with safety position



Technical Information Valve

| | |
|--|--|
| Body material | Stainless steel 1.4408 |
| Nominal size | DN 15 up to DN 65 |
| Connections | flange acc. DIN EN 1092-1 flange acc. ASME B16.5: ANSI #150, ANSI #300 |
| Nominal pressure | PN 40 / ANSI #150 / ANSI #300 |
| Media temperature: | -30 °C up to +200 °C |
| Viscosity of the fluid | max. 600 mm ² /s (600 cSt) |
| Vacuum | maximum 0,001 bar abs |
| Operating pressure packing underneath | max. 12 bar / 175 psig |
| Packing leakage | tested according to TA-Luft as defined in DIN EN ISO 15848-1 and VDI 2440 |
| Body dimensions | L acc. DIN EN 558-92 (old: DIN 3202-F3) |



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Technical Information CA-Actuator

| Function | Control | | | | On/Off | |
|-----------------------------|--|--------------|-------------------|--------------|-----------------------------------|--------------|
| Motor type | CA24C | CA260C | CA24C-R | CA260C-R | CA24 | CA260 |
| Mains connection | 24 V AC/DC | 100-240 V AC | 24 V AC/DC | 100-240 V AC | 24 V AC/DC | 100-240 V AC |
| Set point range | (0)2-10 V / (0)4-20 mA | | | | 3-point** | |
| Mains frequency | 50/60 Hz | | | | 50/60 Hz | |
| Feedback | (0)2-10 V / (0)4-20 mA | | | | optional | |
| Dead band | ±0.6 % of the entire stroke | | | | - | |
| Repeatability | ±0.3 % of the entire stroke | | | | - | |
| Limit switch | 2 | | | | optional | |
| Potentiometer feedback | - | | | | optional | |
| Max. switching capacity | 24 V AC/DC 200 mA | | | | 250 V AC/DC 1 A | |
| Actuating speed | 1.5 / 2 / 3 s/mm (Standard: 2 s/mm) | | | | 2 or 3 s/mm (Standard: 3 s/mm) | |
| Safety functions | Monitoring of tensile force, set point, temperature of the electronics, etc. | | | | Tensile force monitoring | |
| Diagnostic functions | Storage of motor and total operating time, temperature and directional classes, etc. | | | | - | |
| Fail Safe position | - | - | freely adjustable | | - | |
| Load | 500 Ω for current set point / 95 kΩ for voltage set point | | | | - | |
| Max. power consumption | 13 W | 12 W | 13 W | 12 W | 13 W | 12 W |
| Input heating resistor | 10 W | | | | | |
| Starting current | 6 A | 2,5 A | 6 A | 2,5 A | 6 A | 2,5 A |
| Actuating power | 800 N | | | | | |
| Protection class (EN 60529) | IP 65*** | | | | | |
| Adm. Ambient temperature | -10 °C to +60 °C | | | | | |
| Duty cycle | Storage of motor and total operating time, temperature and directional classes, etc. | | | | | |

*: for control with volt-signal split range adjustments are possible

**: Minimum on-time 200 ms

*** Dustproof, protection against water jets from any angle

Wiring diagrams of the actuators can be found in the manual.

Admissible Differential Pressures

| Nominal size | p max [bar] | | | | | | | | | |
|--|-------------|---------|--------|---------|--------|---------|--------|---------|--------|---------|
| | DN15 | | DN20 | | DN25 | | DN32 | | DN40 | |
| | On/off | Control | On/off | Control | On/off | Control | On/off | Control | On/off | Control |
| Stainless steel body | 40 | 16 | 20 | 16 | 12 | 12 | 7 | 7 | 4,8 | 4,8 |
| Body stainless steel pressure balanced | - | - | - | - | - | - | 40 | 16 | 25 | 16 |

| Nominal size | p max [bar] | | | | | |
|--|-------------|---------|--------|---------|--------|---------|
| | DN50 | | DN65 | | DN80 | |
| | On/off | Control | On/off | Control | On/off | Control |
| Stainless steel body | 2,8 | 2,8 | - | - | - | - |
| Body stainless steel pressure balanced | 25 | 16 | 16 | 16 | 14 | 14 |

Kvs-Values (Stroke)

| Characteristic DN | linear | | | | | | | | equal percentage | | | | | | | |
|-------------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|------------|------------------|--------------|---------------|--------------|--------------|--------------|------------|--------------|
| | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 |
| 100 % | 3,8 (9,2) | 8,8 (15,2) | 14 (18,2) | 20 (21,2) | 27 (21,2) | 39 (21,2) | 42 (20) | 54 (20) | 3 (9,2) | 6 (11,2) | 10 (18,2) | 16 (21,2) | 25 (21,2) | 31 (21,2) | 33 (20) | 43 (20,7) |
| 63% | - | - | - | - | - | 24 (21,2) | 26 (21,2) | - | - | - | - | - | - | 17 (21,2) | 19 (20) | - |
| 40 % | 1,5 (9,2) | 3,5 (7,2) | 5,8 (10,2) | 8 (11,2) | 11 (11,2) | - | - | - | 1,2 (9,2) | 2,4 (7,2) | 4 (11,2) | 6 (13,2) | 10 (14,2) | - | - | - |
| 25 % | 0,93 (9,2) | 2,2 (7,2) | 3,6 (10,2) | - | - | - | - | - | 0,8 (9,2) | 1,5 (7,2) | 2,6 (11,2) | - | - | - | - | - |
| 15% | - | - | - | - | - | - | - | - | 0,46 (9,2) | - | - | - | - | - | - | - |
| 10% | 0,4 (9,2) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7,5% | - | - | - | - | - | - | - | - | 0,23 (9,2) | - | - | - | - | - | - | - |
| On-Off | 3,8 (9,2) | 9 (15,2) | 17 (18,2) | 28 (21,2) | 35 (21,2) | 51 (21,2) | 62 (20) | 74 (20) | | | | | | | | |

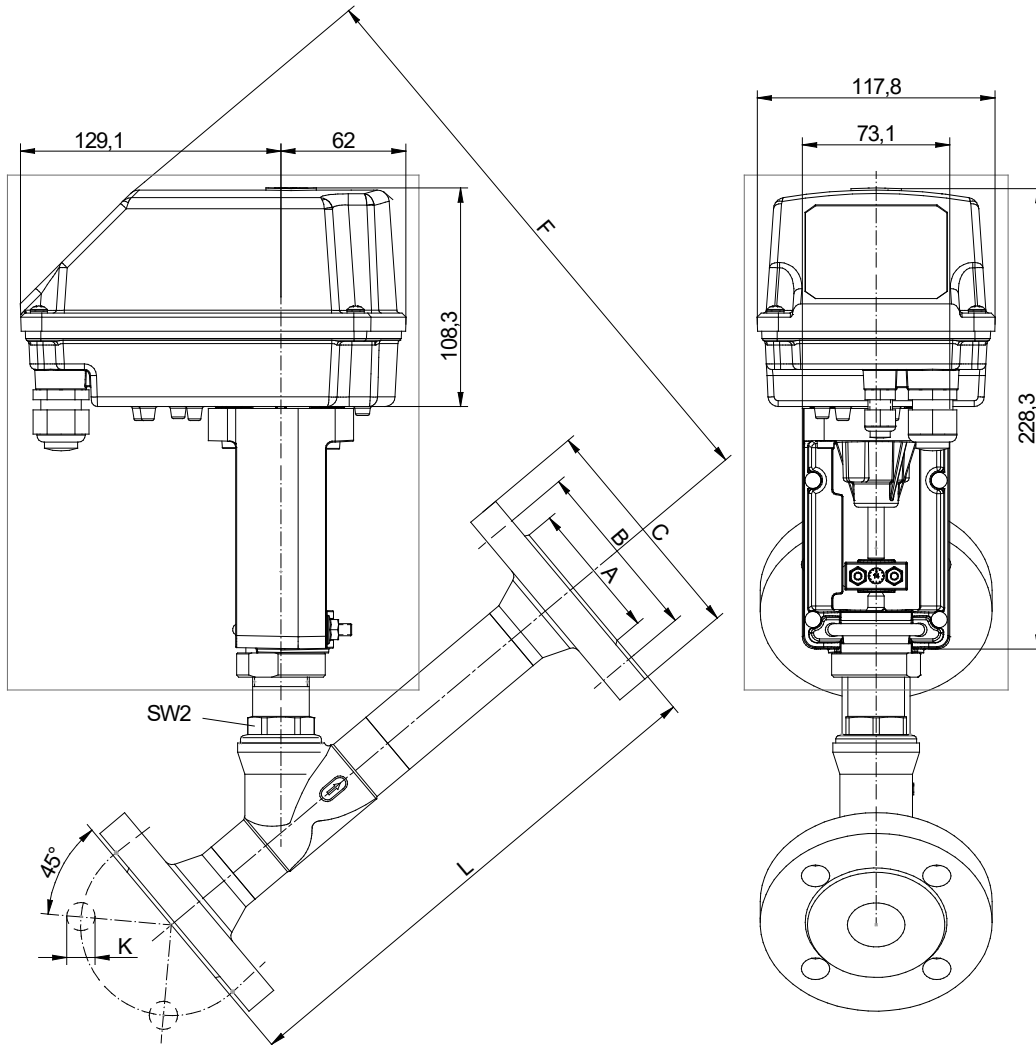
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Ordering Number System

| Article number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 7231 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal size: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 15 | 015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 20 | 020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 25 | 025 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 32 | 032 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 40 | 040 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 50 | 050 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 65 | 065 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DN 80 | 080 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Item: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valve | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| lower valve part | U | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Actuator | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| seal kit | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| head piece (head section cpl. without motor) | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| valve upper part (head section cpl. with motor) | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Motor actuator design: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| compact actuator | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| flange bodied valve | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connection: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angle Seat Flanged Valve acc. DIN EN 1092-1, installation length acc. DIN 3202 F3 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| angle seat flange bodied valve acc. ANSI 150 | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Body material: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| stainless steel | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Seating seal: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PTFE | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FKM (Viton) | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EPDM | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NBR | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PTFE with 25 % glass fibre | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Actuator: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control actuator CA24C, 24 V AC/DC, with pos. electronic, stanard adjustm.: control sig. 4-20 mA, feedback 4-20 mA, 2 limit switch | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control Actuator CA260C, 100-240 V 50/60 Hz, with pos. electronic, Standard adjustm. 4-20 mA, feedb. 4-20 mA, 2 limit switch | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| On-Of (3-point) actuator CA24, 24 V AC/DC | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| On-Off (3-point) actuator CA260, 100-240 V, 50/60 Hz | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control plug: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| without | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| linear 100 % | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| equal percentage 100 % | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| linear 40 % | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| equal percentage 40 % | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| linear 25 % | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| equal percentage 25 % | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| control plug 15 % equal percentage | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| control plug 7.5 % equal percentage (1 GPM) | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| control plug 10 % linear | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Safety versions: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| see following positions | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| test valve (nonstandard file) | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lower part and console of the actuator KTL-coated | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Safety position: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| without safety position | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fail-Safe: normally closed at power failure | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fail-Safe: normaly open at power failure | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fail Safe: position acc. customer request | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stroking times: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standard | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 s/mm | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,5 s/mm | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4,5 s/mm | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Angle Seat Motor Valve with Flanges compact 7231

Dimensions and Weights for CA-actuators



| DN | PN40 | | | | | ANSI150 | | | | | L | F | SW2 | F | SW2 |
|----|------|-----|-----|----|-------------------------|---------|-----|-----|----|-------------------------|-----|-----|-----|-----|-----|
| | A | B | C | K | N number of bores | A | B | C | K | N number of bores | | | | | |
| 15 | 45 | 65 | 95 | 14 | 4 | 35 | 61 | 89 | 16 | 4 | 230 | 283 | 30 | - | - |
| 20 | 58 | 75 | 105 | 14 | 4 | 43 | 70 | 99 | 16 | 4 | 260 | 287 | 30 | - | - |
| 25 | 68 | 85 | 115 | 14 | 4 | 51 | 79 | 108 | 16 | 4 | 260 | 291 | 30 | - | - |
| 32 | 78 | 100 | 140 | 18 | 4 | 64 | 89 | 117 | 16 | 4 | 300 | 306 | 30 | 324 | 41 |
| 40 | 88 | 110 | 150 | 18 | 4 | 73 | 99 | 127 | 16 | 4 | 300 | 311 | 30 | 332 | 46 |
| 50 | 102 | 125 | 165 | 18 | 4 | 92 | 121 | 152 | 19 | 4 | 350 | 318 | 32 | 342 | 52 |
| 65 | 122 | 145 | 185 | 18 | 8 | 107 | 140 | 178 | 19 | 4 | 400 | 340 | 41 | 359 | 36 |
| 80 | 138 | 160 | 200 | 18 | 8 | 127 | 152 | 191 | 19 | 4 | 450 | 388 | 46 | 388 | 46 |

Text and pictures are not binding. We reserve the right, to alter the equipment.