

Ball sector valve 4032



with high-precision valve actuator

Electrically operated control valve with high-precision valve actuator for ball sector valves.

- High-precision actuator with high-efficiency gear
- Designed for use as a basis weight valve
- Control via step signal or analogue 4-20mA (standard)
- Feedback via analogue signal 4-20 mA
- Manual override
- Suitable for abrasive media
- Easily replaceable seat ring
- Low maintenance



Specifications valve

| | | |
|----------------------------------|--|--|
| design | Intermediate flange design | |
| nominal widths | DN 25 to DN 250 | |
| housing material | castings | 1.4408 (CF8M) |
| | turned parts | 1.4404 (316L) |
| bearing material | High temperature plain bearings | |
| Interface to the drive | Mounting kit DIN/ISO 5211 | |
| nominal pressure | DN25 - DN50 | PN40 (for flanges PN 10 - PN 40), ANSI300, ANSI150 |
| | DN80 - DN100 | PN25 (for flanges PN 10 - PN 25), ANSI150 |
| | DN150 - DN250 | PN16 (for flanges PN 10 - PN 16), ANSI150 |
| media temperature | - 60°C to +220°C depending on the seal design | |
| ambient temperature | - 40°C to +80°C Special depending on the drive design versions on request | |
| vacuum | up to 50 mbar abs. | |
| curve | Almost equal percentage valve characteristic | |
| rangeability | 300:1 | |
| Classification DIN EN ISO15848-1 | Series KS2, DN25-DN250: ISO FE-BH-CC3-SSA0-t(-40°C/+220°C)-PN40-ISO 15848-1 | |

Technical data drive

| drive | S1500 | | S2000 | | papyrus | | |
|--|-----------------------------------|------------|------------------------------|------------|---------------------------------------|----------------------|------------------------|
| control | Analogous | Bussys tem | Analogous | Bussys tem | Analogous | step / straight tion | bus system tem |
| control signal | 4 - 20mA / 0 - 10V / 3-point | Modbus 485 | 4 - 20mA / 0 - 10V / 3-point | Modbus 485 | 4-20mA | 24V, 400Hz Max. | Profibus |
| burden | | | | | 470 ohms | 1500 ohms | |
| Auxiliary power, electric | 24VDC [±10%] | | | | 100...230 VAC [±10%], 50-60 Hz [±10%] | | |
| drive type | Stepper motor with gear | | | | Servo motor with planetary gear | | |
| rotation angle detection | integrated in the drive | | | | 15-bit absolute rotary encoder | | |
| steering | in the drive | | | | In the control cabinet | | |
| Positioning accuracy at the ball sector | 1500 steps / 90° | | 2000 steps / 90° | | 8192 steps / 90° | | |
| setting range | 0 - 90 degrees | | | | | | |
| end stops | Mechanical end stops in the drive | | | | Steering; no mechanical stops ge | | |
| operating time | 30s (4 s to 15 min adjustable) | | | | about 2 s to 5 at least | min 4s | about 2 s to 5 mins |
| position feedback | 4-20mA | | | | 4 - 20 mA, load resistance: 1kΩ max. | | |
| Permitted Ambient temperature drive | - 40°C to +80°C | | | | - 10°C to +60°C | | |
| Permitted Ambient temperature of the control cabinet | - | | | | 0°C to +40°C | | |
| Degree of protection according to DIN 40050 | IP67 | | | | IP65 | | |

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Maximum Working Pressures

| DN | permissible differential pressure (delta p) | | | | | | | | | |
|---------|---|--------------|--------------|-------------------|--------------|--------------|--------------|--------------------|--------------|--------------|
| | Seat ring PTFE | | | Seat ring PEEK | | | | Seat ring stellite | | |
| | up to 80°C bar | 120°C bar | 170°C bar | up to 80°C bar | 120°C bar | 170°C bar | 220°C bar | up to 80°C bar | 170°C bar | 220°C bar |
| 25-50 | 25 | 16 | 6 | 40 | 40 | 25 | 16 | 40 | 40 | 25 |
| 65-100 | 16 | 12 | 5 | 25 | 25 | 16 | 10 | 25 | 25 | 16 |
| 125-300 | 16 | 12 | 4 | 16 | 16 | 12 | 8th | 16 | 16 | 12 |

Drives for attachment according to DIN/ISO5211, control pressure 5 - 6 bar
(if only a lower control pressure is available, this must be specified for the design)

temperature limits

| | Material O-ring | | | | | | | | | |
|-----------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|
| | viton | | EPDM | | NBR | | FFKM | | PFA silicone | |
| seat ring | Tmin [°C] | Tmax [°C] | Tmin [°C] | Tmax [°C] | Tmin [°C] | Tmax [°C] | Tmin [°C] | Tmax [°C] | Tmin [°C] | Tmax [°C] |
| PTFE | - 15 | 170 | - 40 | 140 | - 30 | 100 | - 15 | 170 | - 45 | 170 |
| PEEK | - 15 | 200 | - 40 | 140 | - 30 | 100 | - 15 | 220 | - 45 | 220 |
| stellite | - 15 | 200 | - 40 | 140 | - 30 | 100 | - 15 | 220 | - 45 | 220 |

leakage

| seat ring | spherical sector | Portion of the max. Kvs value | leak rate |
|--------------|--|-------------------------------|--|
| | | | Class according to EN 60534-4: (IEC 60534-4) |
| PTFE or PEEK | polished stainless steel | | VI |
| PTFE or PEEK | Hard-chromed stainless steel | 5x10 ⁻⁷ | IV-S1 |
| PTFE or PEEK | Stainless steel, hard chrome plated + lapped | | VI |
| stellite | Stainless steel, hard chrome plated + lapped | 5x10 ⁻⁶ | IV-S1 |

Kvs values

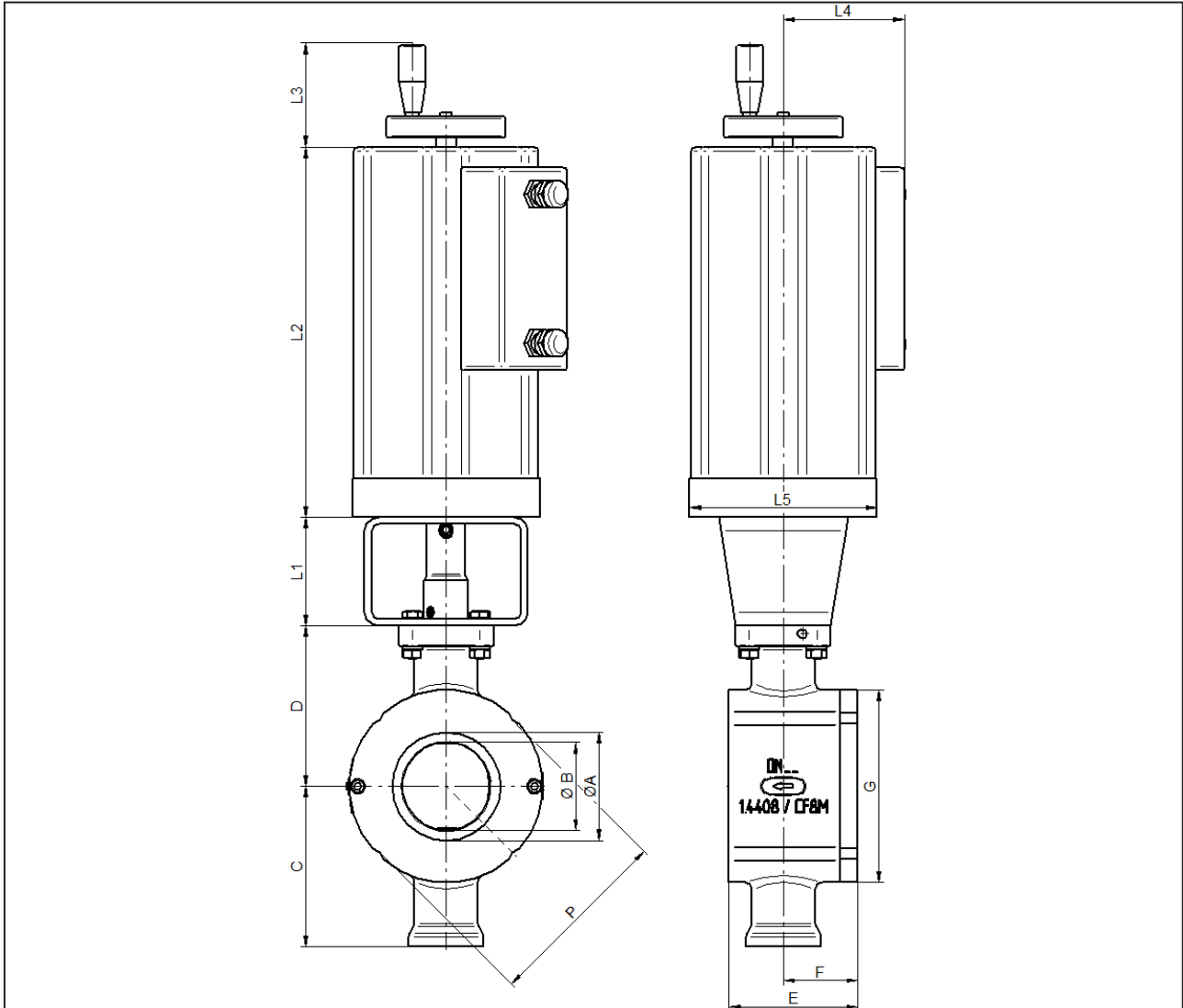
| DN | Kvs value reduced to | | | | | | |
|-----|----------------------|------|-----|-----|-----|------|--|
| | 100% | 63% | 40% | 25% | 16% | 6.3% | |
| 25 | 25 | 12.7 | 7.9 | 5.3 | 3.6 | 1.45 | |
| 40 | 70 | 40 | 25 | | | | |
| 50 | 109 | 65 | 41 | | | | |
| 65 | 190 | | | | | | |
| 80 | 300 | | | | | | |
| 100 | 390 | | | | | | |
| 125 | 756 | | | | | | |
| 150 | 810 | | | | | | |
| 200 | 1365 | | | | | | |
| 250 | 2220 | | | | | | |
| 300 | 3840 | | | | | | |

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Dimensions KS2 with drive S1500 and S2000



| DN | A | B | C | D | E | f | L1 | L2 | L3 | L4 | L5 |
|-----|-----|-----|-------|-------|-----|-----|----|-----|----|----|-----|
| 25 | 25 | 20 | 85 | 85 | 50 | 26 | 60 | 212 | 75 | 90 | 138 |
| 40 | 41 | 32 | 92 | 92 | 58 | 31 | 60 | 212 | 75 | 90 | 138 |
| 50 | 53 | 40 | 95 | 95 | 71 | 38 | 60 | 212 | 75 | 90 | 138 |
| 65 | 65 | 50 | 115.5 | 115.5 | 85 | 49 | 80 | 273 | 75 | 93 | 138 |
| 80 | 80 | 65 | 118.5 | 118.5 | 95 | 55 | 80 | 273 | 75 | 93 | 138 |
| 100 | 100 | 80 | 129.5 | 129.5 | 112 | 62 | 80 | 273 | 75 | 93 | 138 |
| 125 | 100 | 125 | 177.5 | 177.5 | 148 | 85 | 80 | 307 | 75 | 93 | 175 |
| 150 | 150 | 120 | 187 | 187 | 170 | 95 | 80 | 307 | 75 | 93 | 175 |
| 200 | 200 | 155 | 216 | 216 | 210 | 120 | 80 | 331 | 75 | 93 | 175 |

| DN | pm | | | | | ANSI 150 | | | | ANSI 300 | | | |
|-----|------|-----|-----|------|--------|----------|------|----|--------|----------|-----|-----|--------|
| | pm | G | P | M | Number | G | P | M | Number | G | P | M | Number |
| 25 | PN40 | 75 | 73 | 45 | 4 | 75 | 67.6 | 45 | 4 | 79 | 73 | 45 | 4 |
| 40 | PN40 | 96 | 94 | 45 | 4 | 96 | 87 | 45 | 4 | 99 | 94 | 45 | 4 |
| 50 | PN40 | 112 | 106 | 45 | 4 | 112 | 106 | 45 | 4 | 112 | 0 | 0 | 0 |
| 65 | PN25 | 129 | 0 | 0 | 0 | 129 | 125 | 45 | 4 | 129 | 0 | 0 | 0 |
| 80 | PN25 | 142 | 0 | 0 | 0 | 142 | 138 | 45 | 4 | 150 | 0 | 0 | 0 |
| 100 | PN25 | 174 | 164 | 22.5 | 8th | 176 | 0 | 0 | 0 | 182 | 0 | 0 | 0 |
| 125 | PN16 | 200 | 194 | 22.5 | 8th | 200 | 194 | 45 | 8th | --- | --- | --- | --- |
| 150 | PN16 | 220 | 0 | 0 | 0 | 220 | 0 | 0 | 0 | --- | --- | --- | --- |
| 200 | PN16 | 275 | 0 | 0 | 0 | 275 | 0 | 0 | 0 | --- | --- | --- | --- |

size in mm

Information and illustrations are non-binding. Subject to change.