

#### Standardtype

Ventil in Ruhestellung geschlossen - (NC). Der erregte Magnet öffnet eine Vorsteuerbohrung und hebt direkt oder unterstützt von der Druckdifferenz den Kolben vom Hauptsitz. Das Ventil schließt durch Federkraft.

#### Standard type

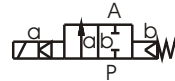
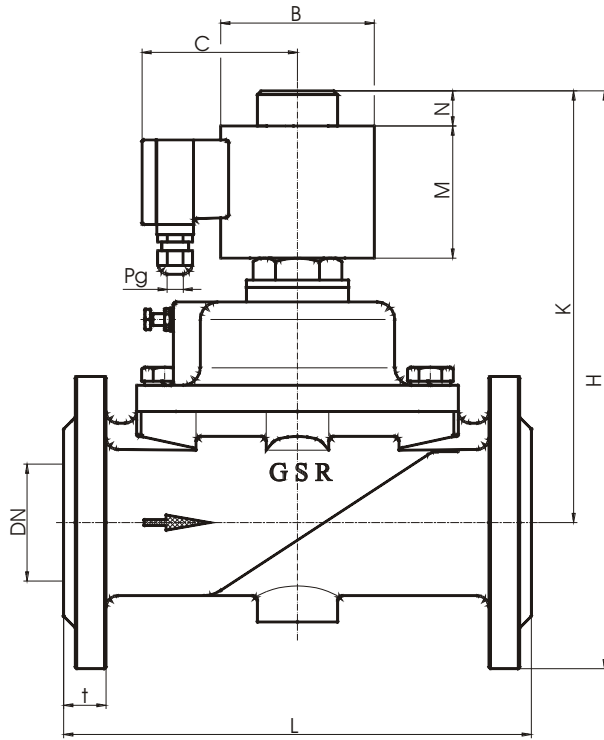
Valve non-energised closed by spring power - NC. When energised, the solenoid will open/free the pilot chamber and the valve will open directly or servo assisted by pressure of the flow medium. A pressure differential ( $\Delta p$ ) is not required for the operation.



|  |   |  |  |
|--|---|--|--|
| Steuerungsart:<br>type of control:           | zwangsgesteuert<br>force pilot operated   | metall. Innenteile:<br>metallic internals: | Messing und Edelstahl 1.4104<br>brass and stainless steel (AISI 430F)  |
| Konstruktion:<br>construction:               | Kolbensitzventil<br>piston design   | Dichtung:<br>seal:                         | NBR<br>NBR   |
| Anschluß:<br>connection:                     | Flansch DN15-DN300<br>flanges DN15-DN300  | Einbaulage:<br>installation:               | nur mit stehendem Magneten<br>actuator only in upright position  |
| Druck:<br>pressure:                          | 0-40 bar (s. Tabelle)<br>0-40 bar (see table)   | Anschlußspannung:<br>supply voltage:       | AC: 24,42,110,230V 50/60Hz<br>DC: 24,110,205V=   |
| Durchflußmedium:<br>medium:                  | neutrale, gasförmige u. flüssige Medien<br>neutral, gaseous and liquid fluids   | Spannungstoleranz:<br>voltage tolerance:   | +5% / -10%<br>+5% / -10%   |
| Viskosität:<br>viscosity:                    | 22mm <sup>2</sup> /s<br>22mm <sup>2</sup> /s  | Leistungsaufnahme:<br>power-consumption:   | 1322/3322 = 30 Watt<br>4242/5242 = 46 Watt<br>4272/5272 = 100 Watt<br>4352/5352 = 150 Watt<br>A532/A532 = 140 Watt<br>A542/A542 = 200 Watt<br>.522/.522 = 198 Watt |
| Mediumtemperatur:<br>medium temperature:     | -10 bis +80°C<br>-10 up to +80°C  |  |  |
| Umgebungstemperatur:<br>ambient temperature: | +35°C<br>+35°C  |  |  |
| Ventilgehäuse:<br>body material:             | ../04../ = GG-25 / cast iron<br>../05../ = GS-C25 / cast steel<br>../08../ = Edelstahl - 1.4581/<br>stainless steel (AISI 316Ti)<br>ab DN65 Edelstahl 1.4408/<br>up to DN65 st. steel (AISI 316L) | Schutzart:<br>enclosure:                   | IP65 nach DIN 40050<br>IP65 according to DIN 40050   |
|  |   | Einschaltdauer:<br>operating factor:       | 100% ED - VDE 0580<br>100% ED - VDE 0580   |
|  |   | Kabelanschluß:<br>electric connection:     | Gerätestecker DIN 43650 oder Klemmkasten<br>DIN 43650 - plug or terminal box   |

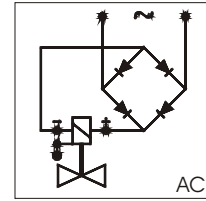
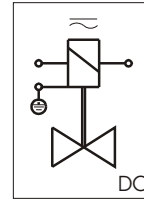
| DN  | Sitz<br>orifice<br>mm | Kv-Wert<br>flow-rate<br>m <sup>3</sup> /h | Standardtype<br>standard type | max. Druck bei Magnettype<br>max. pressure regarding solenoid type |      |      |      |      |      |      |
|-----|-----------------------|---|-------------------------------|--|------|------|------|------|------|------|
|     |                       |   |                               | .322   | .242 | .272 | .352 | A532 | A542 | .522 |
| 15  | 15                    | 5,0                                       | .2401/0.01/....               | 0-40   | -    | -    | -    | -    | -    | -    |
| 20  | 20                    | 11,0                                      | .2402/0.01/....               | 0-25   | 0-40 | -    | -    | -    | -    | -    |
| 25  | 25                    | 13,0                                      | .2403/0.01/....               | 0-25   | 0-40 | -    | -    | -    | -    | -    |
| 32  | 32                    | 28,0                                      | .2404/0.01/....               | 0-10   | 0-25 | 0-40 | -    | -    | -    | -    |
| 40  | 40                    | 30,0                                      | .2405/0.01/....               | 0-10   | 0-25 | 0-40 | -    | -    | -    | -    |
| 50  | 50                    | 46,0                                      | .2406/0.01/....               | -  | 0-25 | 0-40 | -    | -    | -    | -    |
| 65  | 65                    | 75,0                                      | .2407/0.01/....               | -  | 0-16 | 0-40 | -    | -    | -    | -    |
| 80  | 80                    | 97,0                                      | .2408/0.01/....               | -  | 0-16 | 0-25 | 0-40 | -    | -    | -    |
| 100 | 100                   | 143,0                                     | .2409/0.01/....               | -  | -    | 0-16 | 0-40 | -    | -    | -    |
| 125 | 125                   | 240,0                                     | .2410/0.01/....               | -  | -    | 0-16 | 0-40 | -    | -    | -    |
| 150 | 150                   | 370,0                                     | .2411/0.01/....               | -  | -    | -    | 0-16 | 0-40 | -    | -    |
| 200 | 200                   | 625,0                                     | .2412/0.01/....               | -  | -    | -    | -    | 0-16 | 0-40 | -    |
| 250 | 250                   | 950,0                                     | .2413/0.01/....               | -  | -    | -    | -    | -    | 0-10 | -    |
| 300 | 300                   | 1400,0                                    | .2414/0.01/....               | -  | -    | -    | -    | -    | -    | 0-10 |

Maßzeichnung Standardausführung  
dimensional drawing of standard type



Schaltfunktion/function:  
in Ruhestellung gesperrt - NC.  
normally closed - NC.

Anschlußplan / connection diagramm



Für Gleichspannung.  
For DC.

Mit vorgeschaltetem Gleichrichter  
für Wechselspannung.  
With rectifier for AC connection.

Erdung oder Schutzschaltung nach Vorschrift des zuständigen EVU.  
Grounding or earthing of the protective circuit in accordance with  
regulations of the responsible electric supply company.

Absicherung entsprechend der Stromaufnahme vorsehen.  
Appropriate protection according to the power-consumption.

| Magnet solen. | .322  |       |       |      |      | .242  |       |      |      |       |       | .272 |      |      |       |       |      |
|---------------|-------|-------|-------|------|------|-------|-------|------|------|-------|-------|------|------|------|-------|-------|------|
| Type          | 2401  | 2402  | 2403  | 2404 | 2405 | 2402  | 2403  | 2404 | 2405 | 2406  | 2407  | 2408 | 2404 | 2405 | 2406  | 2407  | 2408 |
| DN            | 15    | 20    | 25    | 32   | 40   | 20    | 25    | 32   | 40   | 50    | 65    | 80   | 32   | 40   | 50    | 65    | 80   |
| B             | 63    | 63    | 63    | 63   | 77   | 77    | 77    | 77   | 77   | 77    | 77    | 77   | 105  | 105  | 105   | 105   | 105  |
| C             | 76    | 76    | 76    | 76   | 76   | 82    | 82    | 82   | 82   | 82    | 82    | 82   | 95   | 95   | 95    | 95    | 95   |
| H             | 211,5 | 233,5 | 238,5 | 264  | 269  | 257,5 | 262,5 | 288  | 293  | 306,5 | 362,5 | 415  | 313  | 318  | 334,5 | 402,5 | 445  |
| K             | 164   | 181   | 181   | 194  | 194  | 205   | 205   | 218  | 218  | 224   | 270   | 315  | 243  | 243  | 252   | 310   | 345  |
| L             | 130   | 150   | 160   | 180  | 200  | 150   | 160   | 180  | 200  | 230   | 290   | 310  | 180  | 200  | 230   | 290   | 310  |
| M             | 59    | 59    | 59    | 59   | 59   | 70    | 70    | 70   | 70   | 70    | 70    | 70   | 90   | 90   | 90    | 90    | 90   |
| N             | 16    | 16    | 16    | 16   | 16   | 20    | 20    | 20   | 20   | 20    | 20    | 20   | 25   | 25   | 25    | 25    | 25   |
| t             | 14    | 16    | 16    | 16   | 16   | 16    | 16    | 16   | 16   | 18    | 18    | 20   | 16   | 16   | 18    | 18    | 20   |
| Pg            | 11    | 11    | 11    | 11   | 11   | 11    | 11    | 11   | 11   | 11    | 11    | 11   | 11   | 11   | 11    | 11    | 11   |
| kg            | 5,0   | 5,5   | 6,0   | 8,5  | 10,5 | 7,5   | 8,5   | 11,0 | 13,0 | 14,0  | 35,0  | 44,0 | 13,0 | 16,0 | 21,0  | 38,0  | 47,0 |

| Magnet solen. | .272 |      |      | .352 |      |      |       | A532  |       | A542  |       | .522  |
|---------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Type          | 2409 | 2410 | 2408 | 2409 | 2410 | 2411 | 2412  | 2411  | 2412  | 2412  | 2413  | 2414  |
| DN            | 100  | 125  | 80   | 100  | 125  | 150  | 200   | 150   | 200   | 200   | 250   | 300   |
| B             | 105  | 105  | 145  | 145  | 145  | 145  | 145   | 140   | 140   | 170   | 170   | 200   |
| C             | 95   | 95   | 120  | 120  | 120  | 120  | 120   | 120   | 120   | 140   | 140   | 160   |
| H             | 510  | 480  | 580  | 670  | 545  | 590  | 630   | 700   | 730   | 750   | 782,5 | 830   |
| K             | 400  | 355  | 480  | 560  | 420  | 450  | 460   | 560   | 560   | 580   | 580   | 600   |
| L             | 350  | 400  | 310  | 350  | 400  | 480  | 600   | 480   | 600   | 600   | 730   | 850   |
| M             | 90   | 90   | 145  | 145  | 145  | 145  | 145   | -     | -     | -     | -     | -     |
| N             | 25   | 25   | 20   | 20   | 20   | 20   | 20    | -     | -     | -     | -     | -     |
| t             | 22   | 24   | 20   | 22   | 24   | 26   | 28    | 26    | 26    | 26    | 34    | 38    |
| Pg            | 11   | 11   | 11   | 11   | 11   | 11   | 11    | 11    | 11    | 11    | 11    | 11    |
| kg            | 63,0 | 80,0 | 39,0 | 60,0 | 87,0 | 95,0 | 108,0 | 125,0 | 138,0 | 156,0 | 215,0 | 300,0 |

Alle Angaben sind freibleibend  
und unverbindlich /  
all technical specifications are  
without obligation!

**Weitere Ventilausführungen**

stromlos geöffnet / non energised open = NO  
Dichtung / seal = FKM, EPDM, PTFE  
andere Durchflußmedien und Viskositäten  
varying medium and viscosity ranges  
abweichende Temperaturen und Drücke  
varying temperature and pressure ranges  
Stellungsanzeiger (Endschalter, ab DN20) = EH  
position indicator (reed contact, from DN20) = EH  
Ex-Schutz / explosion proof = EEx em II T4, EEx de II ct6  
GrundmengenEinstellung = GM  
base of volume adjustable = GM

**optional extras**

Handbetätigung / manual override = HA  
regulierbare Schließdämpfung = SR (DN32-DN100 seriemäßig)  
variable close muting = SR (DN32-DN100 standard)  
Öl- und fettfrei = OF  
free of oil and grease = OF (for oxygen applications)  
buntmetallfrei = BF  
free of brass and bronze = BF  
Temperaturausführung bis +180°C = TH  
design for high temperature up to +180°C = TH

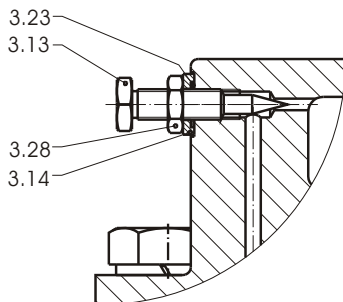
Stückliste - parts list

- K1.1 Armatur / valve body
- K2.1 Deckel / bonnet
- \*K3.1 Vorsteuersitz / rough control seat
- \*K3.2 Ventilkolben komplett / valve piston
- \*K3.4 Vorsteuerspindel / rough control spindle
- \*K3.7 Überwurfmutter / cap nut
- K3.10 Führungring / guide ring
- K3.13 Dämpfungsschraube / damping screw
- K3.14 Scheibe / disk
- K3.15 Scheibe / disk
- \*K3.16 Nutring / u-cup seal
- \*K3.17 Führungsband / guide band
- \*K3.18 O-Ring / o-ring
- \*K3.19 O-Ring / o-ring
- \*K3.20 O-Ring / o-ring
- \*K3.21 O-Ring / o-ring
- \*K3.23 O-Ring / o-ring
- \*K3.24 Scheibe / disk
- K3.27 6-kt. Mutter / hexagon nut
- K3.28 6-kt. Mutter / hexagon nut
- K3.31 Gewindestift / grub screw
- \*K3.33 Feder / spring
- K5.1 Magnethülse / solenoid tube
- K5.2 Magnetanker / solenoid plunger
- K5.4 Druckstück / pressure part
- K5.5 O-Ring / o-ring
- K5.6 Scheibe / disk
- K5.8 Zylinderschraube / cylinder screw
- K5.9 Scheibe / disk
- K6.1 Magnetspule / solenoid

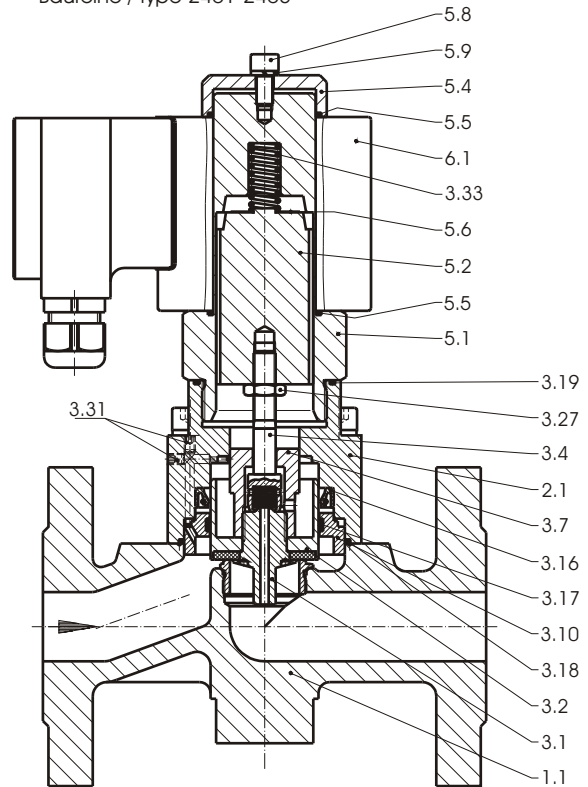
\*= Bestandteil des Ersatzteilpäckchens  
(je nach Ausführung freibleibend)  
\*= all components of spare parts and service sets are variable in reference to different versions and executions. (These specifications are without obligation).

Regulierbare Schließdämpfung - SR (von DN32-DN100 serienmäßig)  
variable close muting - SR (from DN32-DN100 standard)

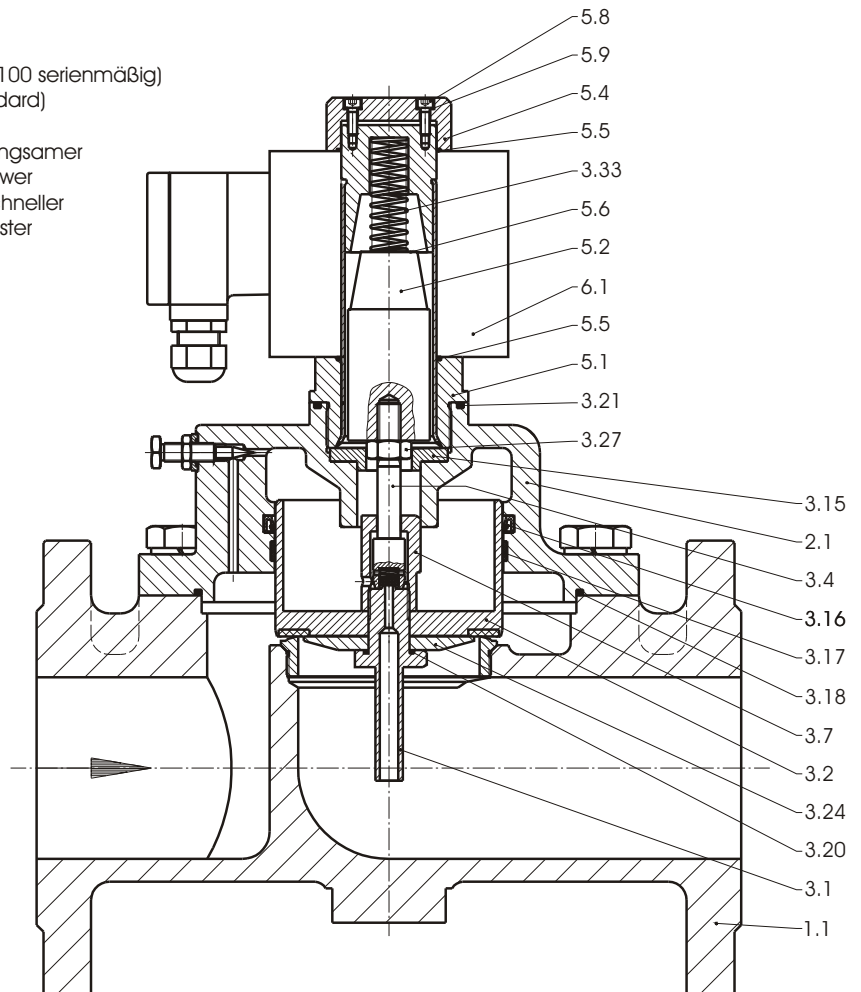
Schraube nach rechts drehen : Ventil schließt langsamer  
screw to the right site : valve closes- slower  
Schraube nach links drehen : Ventil schließt schneller  
screw to the left site : valve closes - faster



Baureihe / type 2401-2403



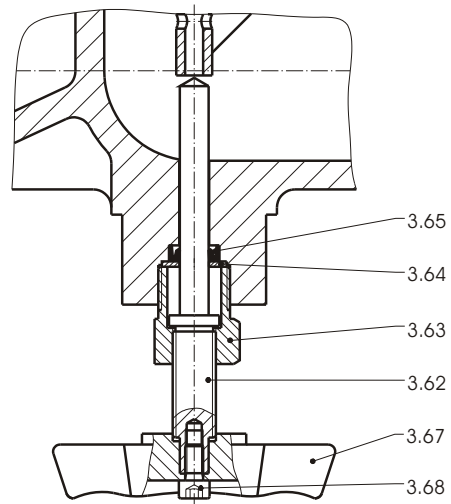
Baureihe / type 2404 - 2409



Handbetätigung - HA  
manual operation - HA

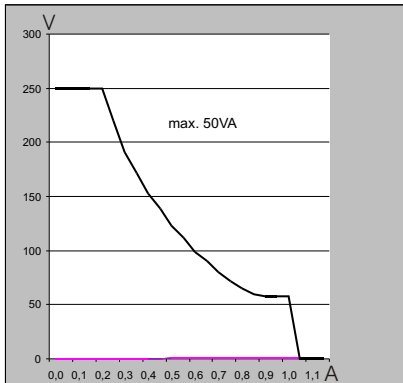
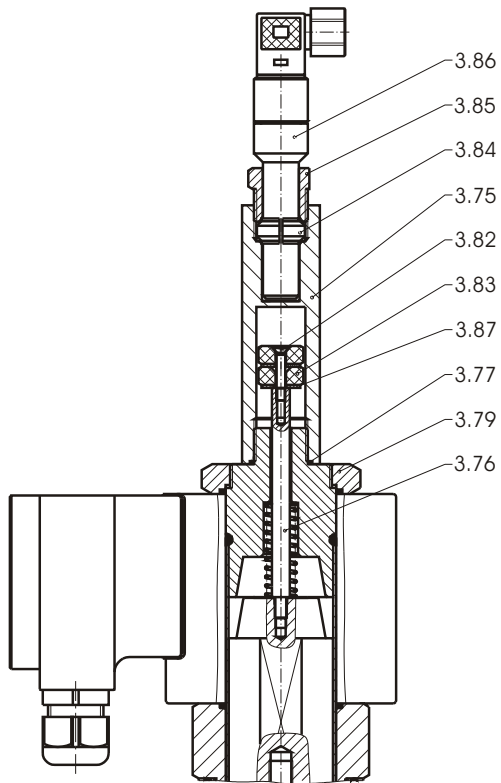
Ventiloptionen / optional extras

- K3.62 Spindel / stem
- K3.63 Verschraubung / screw joint
- K3.64 Scheibe / disk
- K3.65 Nutring / u-cup seal
- K3.67 Handrad / handwheel
- K3.68 Zylinderschraube / cyl.-screw



Stellungsanzeiger - EH (ab DN20)  
position indicator - EH (from DN20)

- K3.75 Zwischenverschraubung / screw joint
- K3.76 Spindel / stem
- K3.77 O-Ring / o-ring
- K3.79 Befestigungsmutter / locking nut
- K3.82 Senkschraube / screw
- K3.83 Permanentmagnet / permanent magnet
- K3.84 Klemmring / clamp ring
- K3.85 Verschraubung / screw joint
- K3.86 Endschalter / position indicator
- K3.87 Scheibe / disk



Schaltleistungsdiagramm  
breaking capacity-graph

Anschlußplan  
connection plan

Endschalter / position indicator

