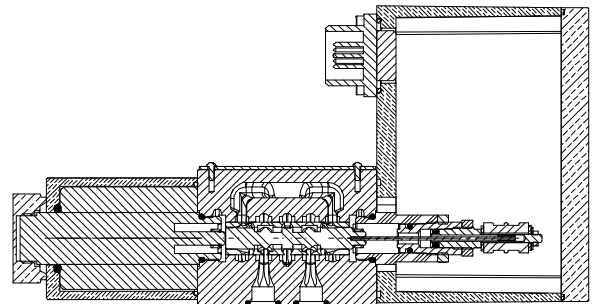
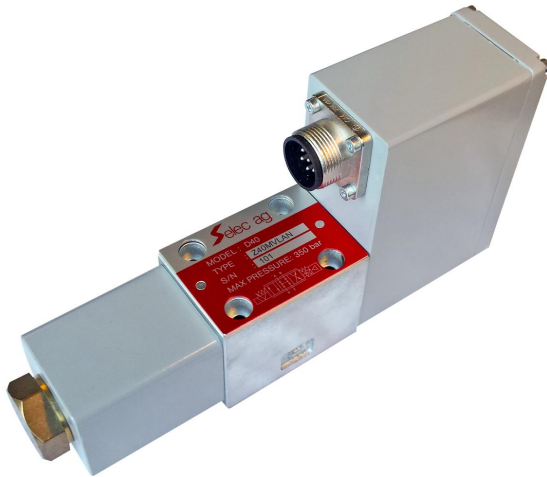


Characteristics of D40

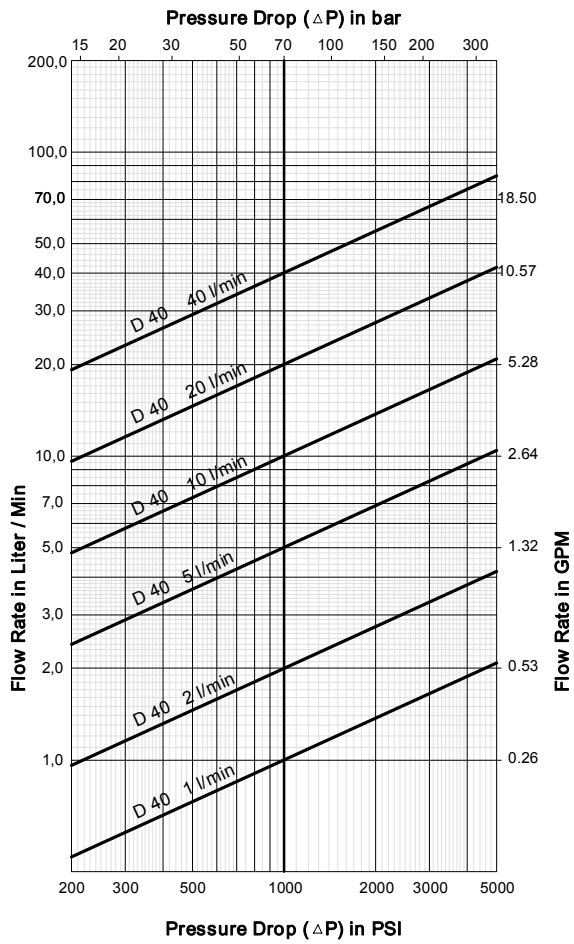
- Proportional Servo Valve for position-, velocity-, and pressure control
- Direct spool drive with bidirectional proportional magnet
- Attachment pattern NG 6 / Cetop 03
- Flowcurve linear or bend
- Customer requested fail-safe-spool position when electrical power down
- On board electronic



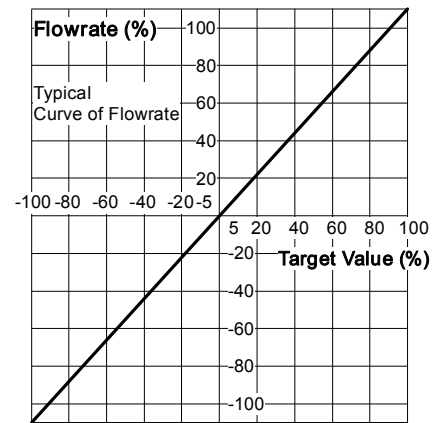
Technical Data D40

| | | | | | | |
|---|--|-----------|-----------|-----------|-----------|-----------|
| Function | Direct driven 4/3-Valve | | | | | |
| Spool drive | Bidirectional proportional magnet | | | | | |
| Attachment pattern | ISO 4401-03, Cetop 3 | | | | | |
| Nominal Flow at 70 bar ΔP | 1 L/min | 2 L/min | 5 L/min | 10 L/min | 20 L/min | 40 L/min |
| Frequency response at 90° phase shift and 40% amplitude | 95 Hz | 95 Hz | 95 Hz | 95 Hz | 95 Hz | 95 Hz |
| Leakage at 100 bar, 40 cSt | 0,1 L/min | 0,2 L/min | 0,2 L/min | 0,3 L/min | 0,5 L/min | 0,8 L/min |
| Step response for 100% amplitude | <10ms | | | | | |
| Max. pressure in P, B, A | 350 bar | | | | | |
| Max. pressure in T without Y | 250 bar | | | | | |
| Max. pressure in T with Y | 350 bar | | | | | |
| Temperature range | -20 to 70°C | | | | | |
| Fluid viscosity | 10 to 360 cSt. | | | | | |
| Fluid cleanliness | NAS 1638: < class 7 ISO 4406 :16/13, 1 liter version: NAS 1638: < class 6 ISO 4406 :14/12 | | | | | |
| Resolution | 0,1% of rated signal | | | | | |
| Hysteresis | <0.2% | | | | | |
| Null shift with pressure change of 20% | <0.2% | | | | | |
| Null shift with temperature change of 40°C | <1.5% | | | | | |
| Electric connector | 6+PE DIN43563 | | | | | |
| Connector 6+PE (Customerside) | EN175201-804 (not included, but available) | | | | | |
| Customer-Signals | +/-10V, +/-10mA, 4...20 mA, other on request | | | | | |
| Fail-safe spool position | Mid-position or P→B / A→T..or P→A / B→T | | | | | |
| Power supply voltage | 24 VDC, min. 22 VDC, max. 27 VDC, | | | | | |
| Max. current consumption | 1.8 Amp | | | | | |
| Type of protection | IP67 | | | | | |
| Installation position | any | | | | | |
| Weight | 2 Kg | | | | | |

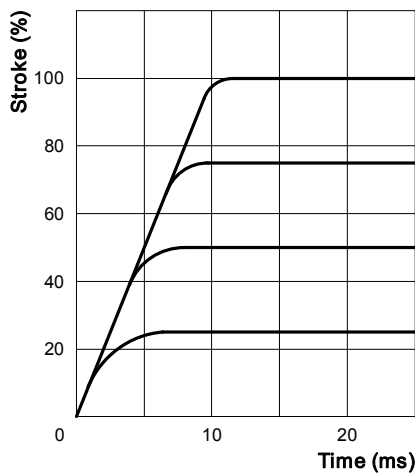
Valve Flow Diagram



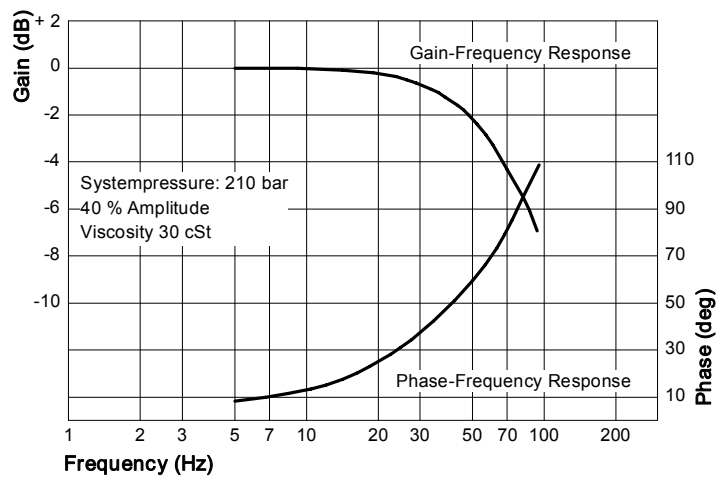
Volume-Signal
at constant pressure difference



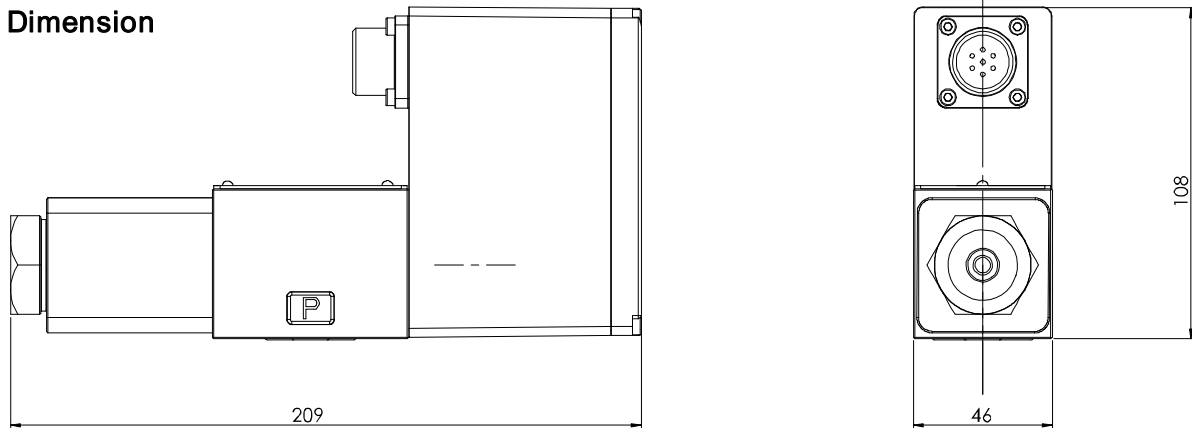
Step Response



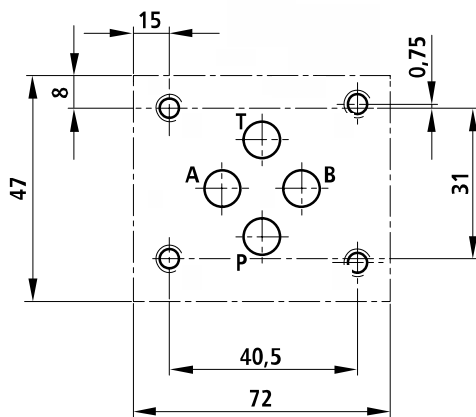
Frequency Response



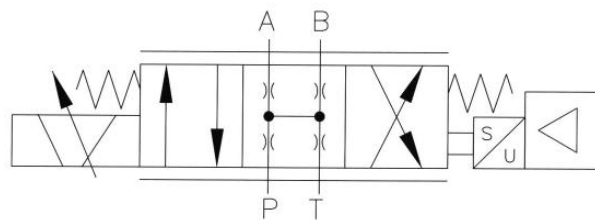
Dimension



Connection (View application)

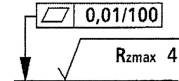


Hydraulic schema



Valve attachment-surface

Please assure the following valve attachment surface quality:



Electrical Connection

| | | |
|--------------|-----------------------------------|----------------------------------|
| Pin A | Supply | 24 VDC (22 VDC – 30 VDC) |
| Pin B | GND | 0 VDC |
| Pin C | Not used | |
| Pin D* | Input Command Valve flow | +/- 10 VDC, +/- 10 mA, 4...20 mA |
| Pin E | Input Command Valve flow (invert) | +/- 10 VDC, +/- 10 mA |
| Pin F | Output spool position | 4...20 mA |
| Pin \oplus | Protected earth | |

* Positive command signal, or 20mA Signal on Pin D shows flow P→A und B→T

* Negative command signal, or 4mA Signal on Pin D shows flow P→B und A→T

Installation instruction

Torque for valvefixing-screws

The required torque for the M5 x 50 screw is 7.6Nm. No dirt or grease allowed!

Oil filtration

In pressureline P, just before the valve, the <10um absolut filtration must be installed.

Previous flushing of all oil through filter and flushingplate is recommended.

Please ask for the flushing plate.

Orderinformation

| D40 | | | | | | | | | |
|------|--|--|--|--|--|--|--|--|----------------|
| Code | Spool | | | | | | | | Selec Specific |
| Z | Zero Overlap | | | | | | | | |
| Y | Overlap 2% | | | | | | | | |
| X | Overlap 10% | | | | | | | | |
| W | Overlap 25% | | | | | | | | |
| V | 3 way | | | | | | | | |
| U | P = 10% OL, T = 3% UL | | | | | | | | |
| Code | Orientation of valve | | | | | | | | |
| B | Connector on B-side (standard) | | | | | | | | |
| A | Connector on A-side | | | | | | | | |
| Code | Flow at 70 bar Δ | | | | | | | | |
| 40 | 40 L/Min | | | | | | | | |
| 20 | 20 L/Min | | | | | | | | |
| 10 | 10 L/Min | | | | | | | | |
| 5 | 5 L/Min | | | | | | | | |
| 2 | 2 L/Min | | | | | | | | |
| 1 | 1 L/Min | | | | | | | | |
| Code | Spool position when power down | | | | | | | | |
| A | P → B / A → T | | | | | | | | |
| B | P → A / B → T | | | | | | | | |
| M | No flow | | | | | | | | |
| Code | Flowcurve | | | | | | | | |
| L | Linear, area ratio 1:1 (standard) | | | | | | | | |
| M | Linear area ratio 2:1 | | | | | | | | |
| P | Bent at 40%, area ratio 1:1 | | | | | | | | |
| Q | Bent at 40%, area ratio 2:1 | | | | | | | | |
| Code | T-bridge | | | | | | | | |
| A | With T-bridge (standard) | | | | | | | | |
| B* | Without T- ridge (Max. flow 20 L/Min) | | | | | | | | |
| Code | Seal Material | | | | | | | | |
| V | Viton (FPM, FKM) | | | | | | | | |
| N | NBR | | | | | | | | |
| E* | EPDM | | | | | | | | |
| Code | Command Signal | | | | | | | | |
| A | +/- 10 Volt | | | | | | | | |
| E | +/- 10 mA | | | | | | | | |
| S | 4....20 mA | | | | | | | | |

* Surcharge