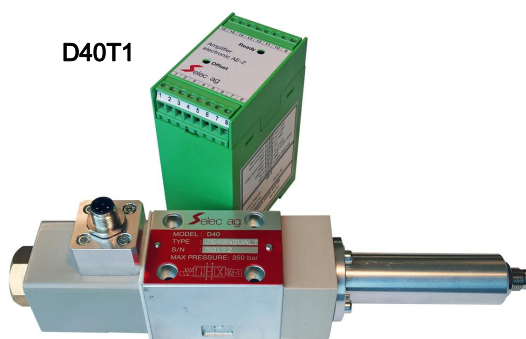


Characteristics of D40T

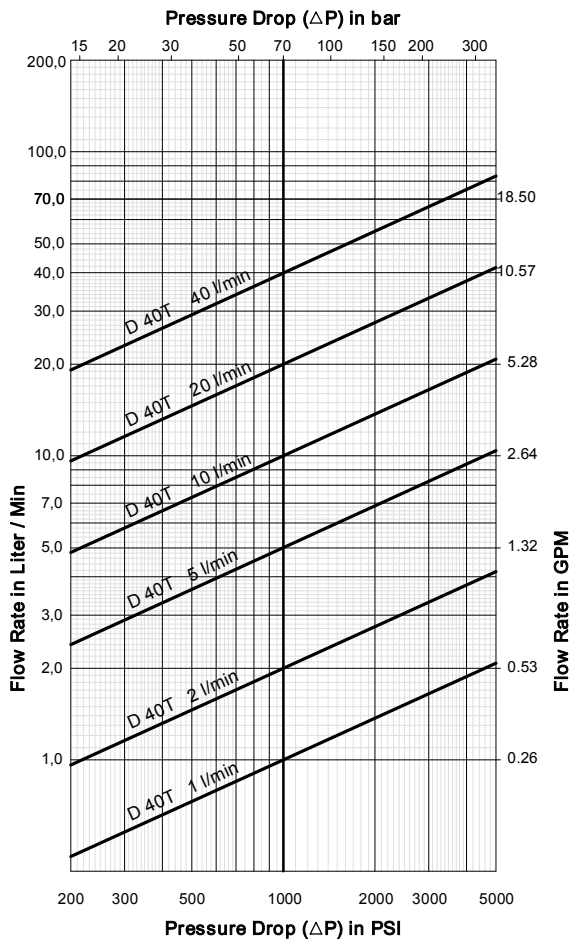
- Proportional Servo Valve for position-, velocity-, and pressure control
- Two different high temperature classes
- Usable fluid: mineraloil, waterglycol, skydrol, brake fluid, etc.
- Direct spooldrive with bidirectional proportionalmagnet
- Attachment pattern NG 6 / Cetop 03
- Customer requested fail-safe-spool position when electrical power down



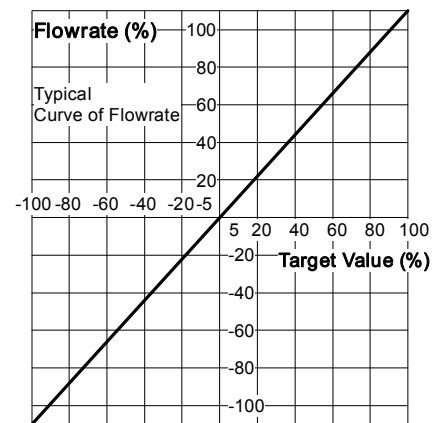
Technical Data D40T

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
Frequencyresponse at 90° phaseshift 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					
Usable fluid	See "Configurator D40 model and O-Ring material" on Selec website 'downloads'					
Fluid viscosity	5 to 360 cSt.					
Cleanliness of fluid	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 pressurechange of 20%	<0.2%					
Null shift with temperaturchange of 40C°	<1.5%					
Electric connector	2 x M12 (Magnet = 4 pin, LVDT = 8 pin)					
Connector (Customerside)	harness with 4 connectors incl. 2 x 8 pin for AE-2, 1 x M12, 4 pin for connector magnet, 1 x M12, 8 pin for connector LVDT					
Customer-Signals	+/-10Volt, +/-10mA, 4....20mA, other on request					
Fail-safe spool position	Mid-position, or P→B/ A→T or P→A/ B→T					
Power supply voltage	24VDC, min. 22 VDC, max. 27 VDC					
Max. current consumption	1.8 Amp					
Type of protection	IP67					
Installation position	any					
Temperature ranges	D40T1			D40T2		
min. temperature fluid	- 40° C			- 40° C		
max. temperature fluid	+160° C			+160° C		
min. ambient temperature	- 40° C			- 40° C		
max. ambient temperature	+80° C			+160° C		
Weight	2 kg incl. electronic + harness			1.9 kg incl. electronic + harness		

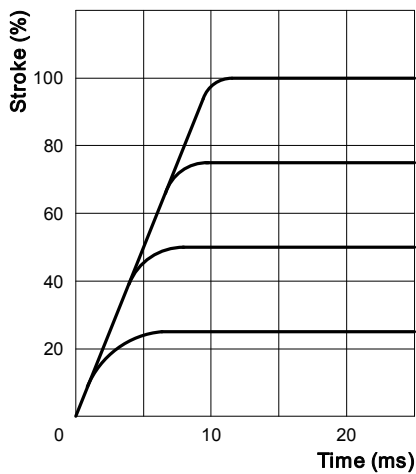
Valve Flow Diagram



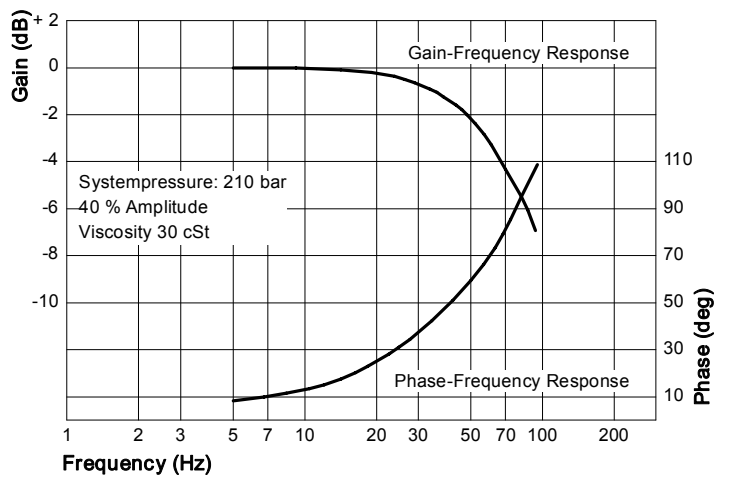
Volume-Signal
at constant pressure difference



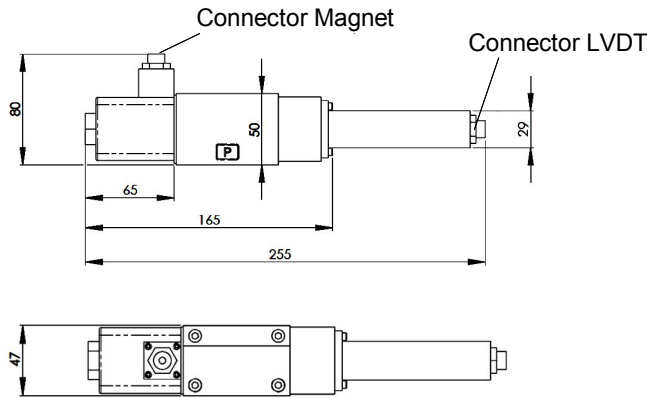
Step Response



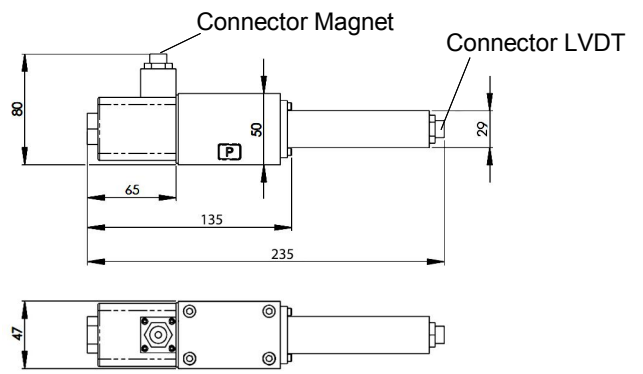
Frequency Response



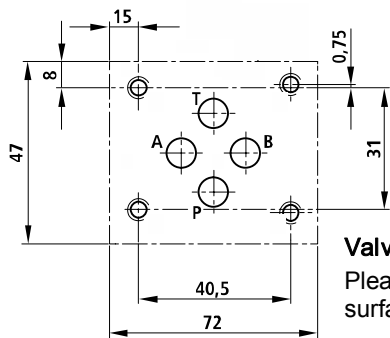
Dimension D40T1



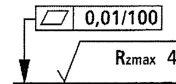
Dimension D40T2



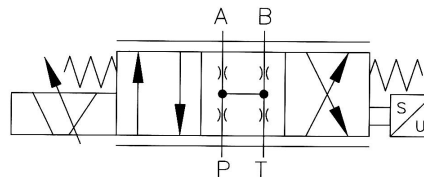
Connection (View application) ISO 4401-03-03-0-94



Valve attachment surface
Please assure the following valve attachment surface quality:



Hydraulic schema



Electrical connection plan

	Pin	Signal	Command	
			Current Command	Voltage Command
Input command -	1	differential input	Re = 100Ω	Re = 200kΩ
Input command +	2			
GND	3	OV (L)		
Output spool position	4	4...20mA, 12mA = spool in center position / R _i 300-500Ω		
24VDC	5	Supply 22-27VDC		
GND (OV)	6	white		
Valve	7	blue		
Valve	8	black		
Enable (Optional)	9	24VDC = function, 0VDC = no function		
GND	10	ca. 1e shield		
not used	11			
In 1 LVDT	12	brown		
+9V	13	green		
In 2 LVDT	14	yellow		
Out 1 LVDT	15	grey		
Out 2 LVDT	16	pink		

Valve-Connector Magnet	
1	not used
2	
3	
4	

Valve-Connector LVDT	
1	
2	
3	
4	
5	
6	
7	not used
8	not used

= harness part Nr. 170614 (2 meter included with D40T)

- * 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 valvfixing-screws

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

Liquid medium 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

D40T



Code	Temperature range
1	Fluid temp. max 160° C Ambient temp. max 80° C
2	Fluid temp. max 160° C Ambient temp. max 160° C

Selec
spezifisch

2	2 meter cable
5*	5 meter cable

Code	Spool
Z	Zero Overlap
Y	Overlap 2%
X	Overlap 10%
W	Overlap 25%
V	3 way
U	P = 10% OL, T = 3% UL

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	Orientation of valve
B	LVDT-Connector on B-side (standard)
A	LVDT-Connector on A-side

Code	T-bridge
A	With T- ridge (standard)
B*	Without T-bridge (Max. flow 20 L/Min)

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	Seal Material
V	Viton (FPM, FKM)
P*	PFE
E	EPDM

Code	Spool position when power down (fail safe)
A	P → B / A → T
B	P → A / B → T
M	No flow

Code	Command Signal
A	+/- 10 Volt
E	+/- 10 mA
S	4...20 mA

* Surcharge