FLOW CONTROL VALVE TVTP-...-P-...

- NG 6, 10
- Up to 210 bar *[3046 PSI]*
- Up to 150 L/min *[39.6 GPM]*

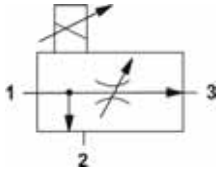
- Three-way pressure compensated.
- Operating element: proportional solenoid.
- Control electronics: Amplifier P/N: 1659574.
- For independent fitting into a block.
- For independent mounting (when assembled with connection block P-TVTP).
- Plug-in connector for solenoids to ISO 4400.
- Protection of solenoid IP 54 to EN 60529 / IEC 60529 (IP 65 on request).

TVTP-...-P-...

Operation

TVTP three-way flow regulators are used to regulate the priority flow in outlet 3 to a maximum adjustable level largely independent of the load and pressure conditions. The surplus flow is diverted to the bypass port 2. The bypass flow may be used for a secondary circuit.
Whether the pressure in secondary circuit is higher than the regulated pressure the valve works as two-way regulator.

Hydraulic symbol

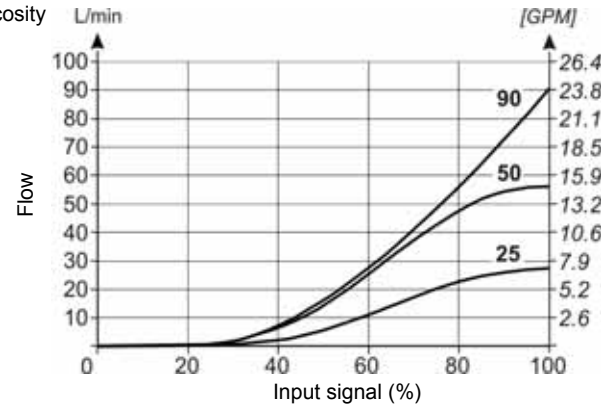


Features

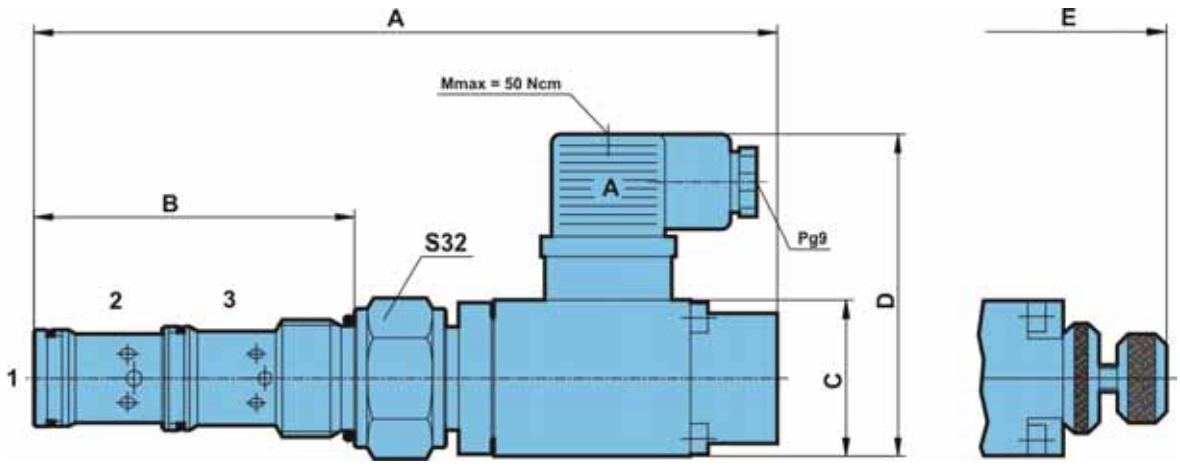
Type		TVTP-25	TVTP-50	TVTP-90
Rated flow 3	L/min *[GPM]*	25 *[6.6]*	50 *[13.2]*	90 *[23.8]*
Flow rate 1 max.	L/min *[GPM]*	60 *[15.9]*	90 *[23.8]*	150 *[39.6]*
Operating pressure max.	bar *[PSI]*	210 *[3 456]*		
Hysteresis	%	<5		
Flow constant according to load pressure	%	<±2		
Oil temperature range	°C *[°F]*	-20 to +70 *[-4 to +158]*		
Viscosity range	mm^2/s *[SUS]*	15 to 380 *[69.5 to 1 761]*		
Filtration	NAS 1638	7		
Mass	kg *[lb]*	1 *[2.2]* (TVTP-..)		1,6 *[3.5]* (TVTP-..)
		1,2 *[2.6]* (TVTP-..G)		2 *[4.4]* (TVTP-..G)
Power	W	17,4		20,8
Voltage	V	12 and 24 DC		
Rated current at 12 V	A	1,25		1,79
Rated current at 24 V	A	0,68		0,81
Coil resistance at 12 V; 20 °C *[68 °F]*	Ohm	7,2		4,3
Coil resistance at 24 V; 20 °C *[68 °F]*	Ohm	24,6		21
Rating ED	%	100		

Solenoid current / flow curves

Measured at 50°C *[122°F]* and viscosity of 32 mm^2/s *[148 SUS]*.



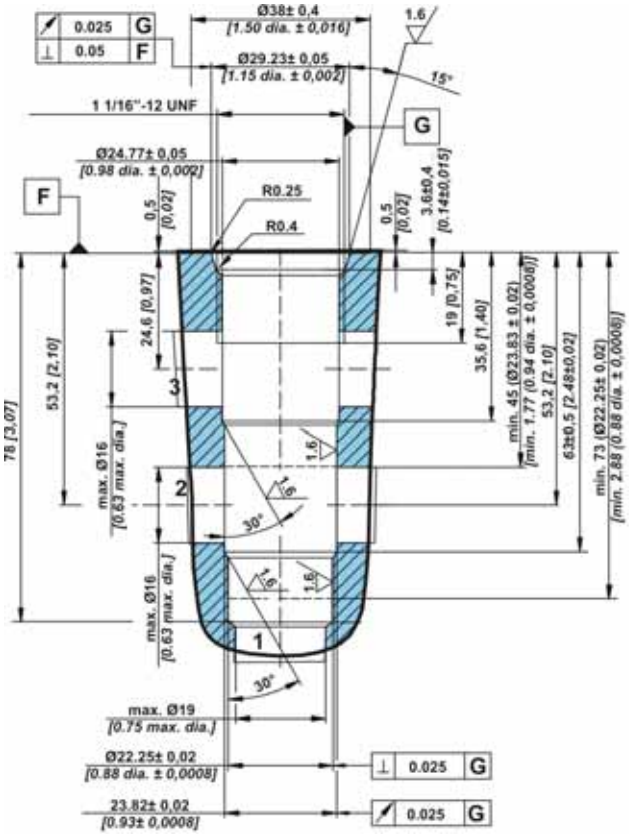
Dimensions



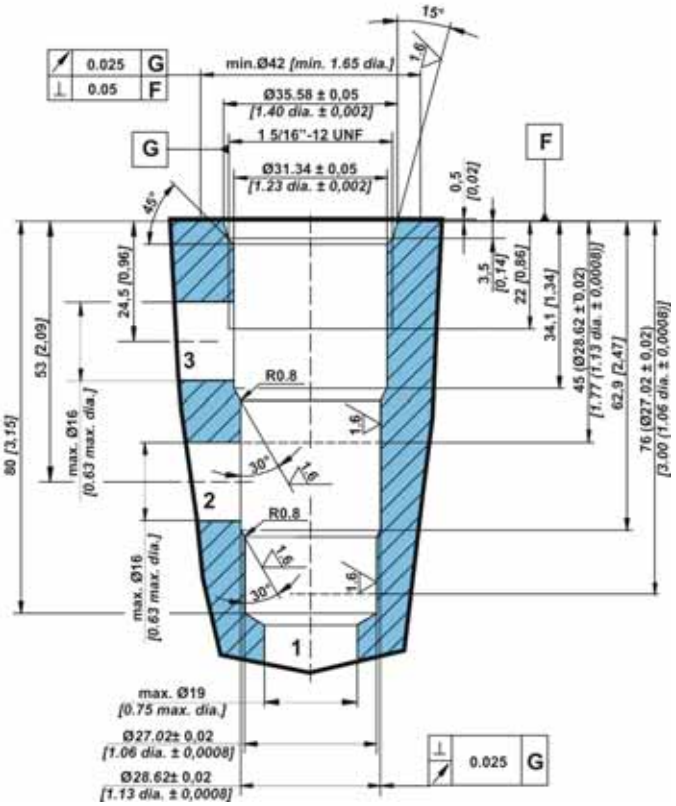
	A mm *[Zoll]*	B mm *[Zoll]*	C mm *[Zoll]*	D mm *[Zoll]*	E mm *[Zoll]*	S	Torque into cavity Nm *[in.lbf]*
TVTP-25-P	170 *[6,7]*	73,5 *[2,9]*	35 *[1,4]*	74 *[2,9]*	210 *[8,3]*	S32	60-65 *[531-575]*
TVTP-50-P							
TVTP-90-P	198 *[7,8]*	75 *[3,0]*	45 *[1,8]*	84 *[3,3]*	244 *[9,6]*	S41	70-75 *[619-664]*

Dimensions of cavity

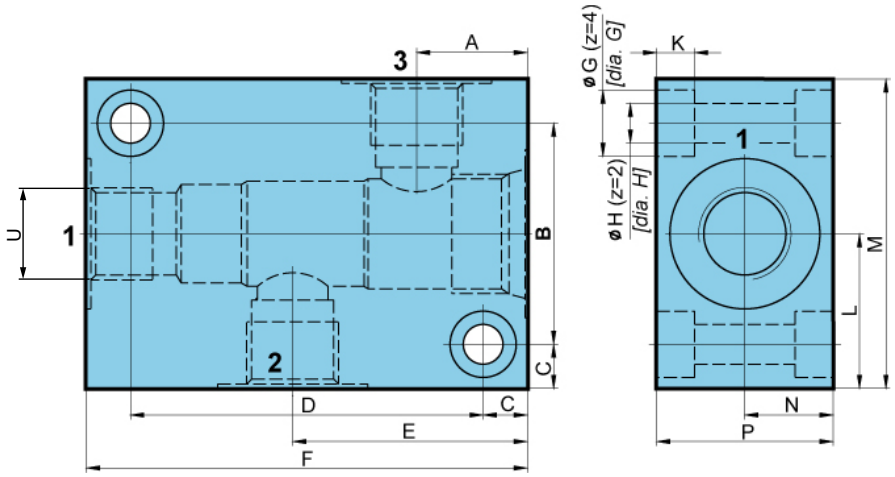
TVTP-25 and50



TVTP-90



Standard ported body - steel



	P-TVTP-50 mm *[Zoll]*	P-TVTP-90 mm *[Zoll]*
A	25,1 *[0,99]*	25 *[0,98]*
B	50 *[1,97]*	65 *[2,56]*
C	10 *[0,40]*	15 *[0,59]*
D	80 *[3,15]*	80 *[3,15]*
E	53,2 *[2,10]*	53,5 *[2,11]*
F	100 *[3,94]*	110 *[4,33]*
G	15 *[0,59]*	17 *[0,67]*
H	9 *[0,35]*	11 *[0,43]*
K	8,6 *[0,34]*	10,6 *[0,42]*
L	35 *[1,37]*	47,5 *[1,87]*
M	70 *[2,75]*	95 *[3,74]*
N	20 *[0,78]*	26 *[1,02]*
P	40 *[1,57]*	52 *[2,05]*
U	G 1/2	G 1

Threaded connections to ISO 1179-1.

Model code

P - T V T P - □

Size	
For TVTP-25-P; TVTP-50-P	**50**
For TVTP-90-P	**90**

Model code

T V T P - □ - P - □ - □ - □ - ✱

Flow rate L/min *[GPM]*	
25 *[6,6]*	**25**
50 *[13,2]*	**50**
90 *[23,8]*	**90**

Operating element	
Proportional solenoid	**P**

Supply voltage	
12 V direct voltage	**12DC**
24 V direct voltage	**24DC**

Hand operation of solenoid	
Without hand operation	**No designation**
With hand operation	**G**

Seal type	
NBR seals for mineral oil HL,HLP to DIN 51524	**No designation**
FPM seals for HETG, HEES, HEPG to VDMA 24568 and ISO 15380	**E**

Special requirements to be briefly specified