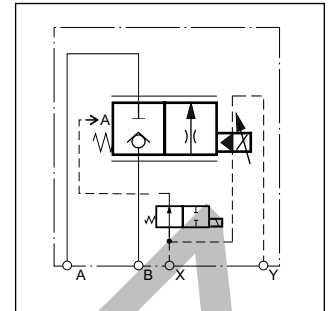
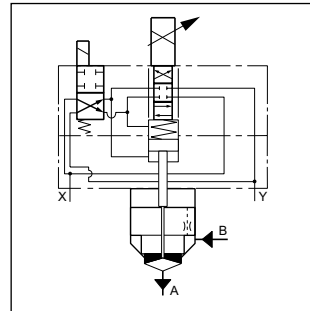


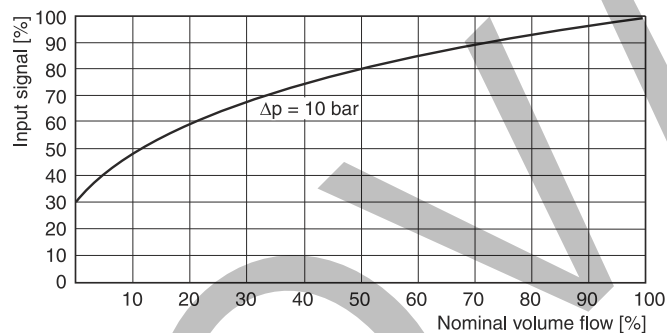
Accumulator discharge valves series TEA are preferably used in hydraulic systems where high flow rates are discharged from hydraulic accumulators over a short operating period (in the range of milliseconds). Typical applications are injection molding and die casting machines as well as hydraulic presses.

Basically the function of an accumulator discharge valve corresponds to the function of a TDA throttle valve. In addition a directional valve is integrated in the pilot circuit to meet the relevant safety regulations.

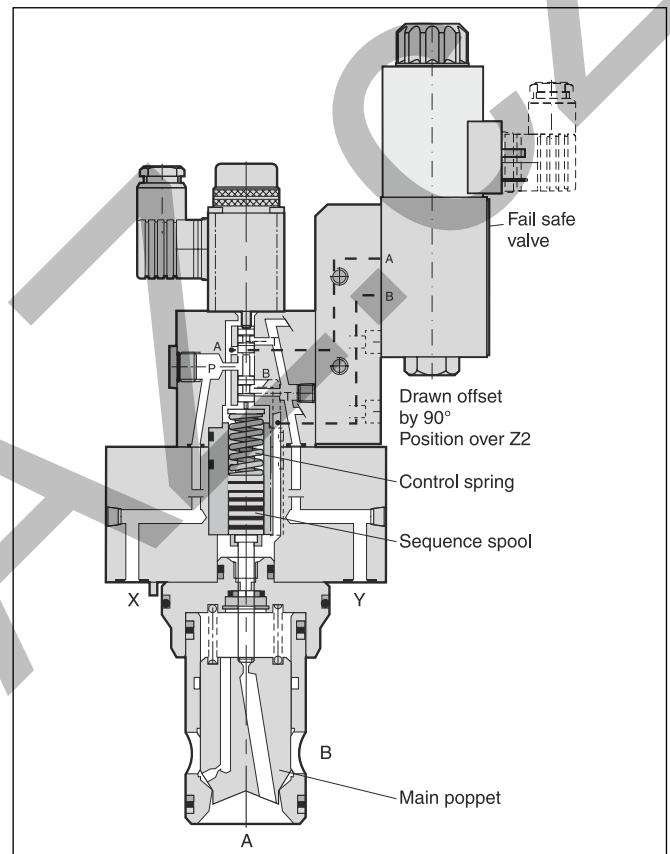
The directional valve provides the safety function. When the solenoid is deenergized and the spring is in end position, pilot pressure from X presses the control piston into lower end position and the main poppet is closed. As a result the flow from B to A or from the reservoir system to the machine is blocked.



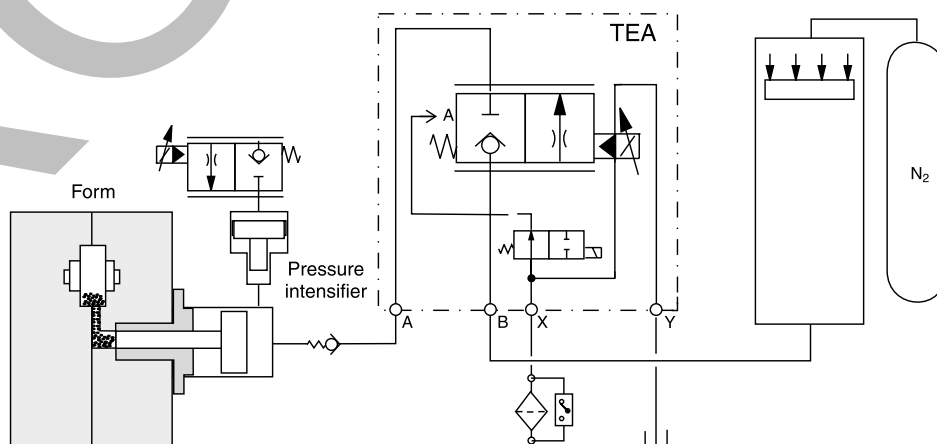
Characteristic curve



Characteristic curve measured with HLP46 at 50 °C.



Example accumulator system in a die casting machine



Ordering code

TEA		E	W	0	9		2			W		
2-way Prop. throttle valve with shut-off function	Nominal size	Cartridge valve ISO 7368	Design	Spool form	Flow code	Flow direction	Pilot oil guide	Seals	Prop. solenoid voltage	Plug socket without plug	Solenoid voltage	Design series (not required for ordering)

Code	Nominal size
025	NG25
032	NG32
040	NG40
050	NG50
063	NG63
080	NG80
100	NG100

Code	Flow direction
A	A to B
B	B to A

Code	Solenoid
J	24 V= / 1.25 A
U ¹⁾	98 V= / 0.31 A
G ¹⁾	205 V= / 0.15 A

Code	Proportional solenoid voltage
L	6 VDC
X	16 VDC

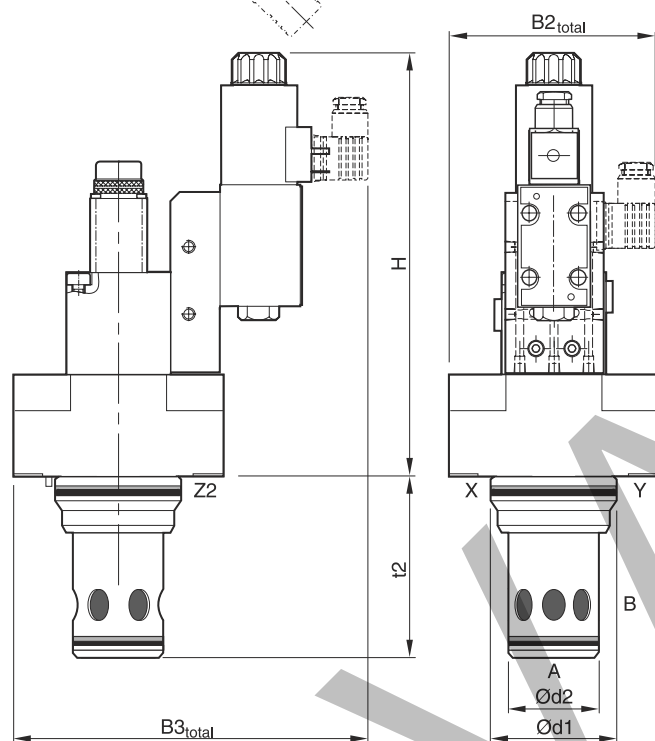
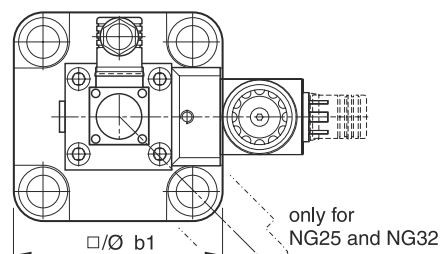
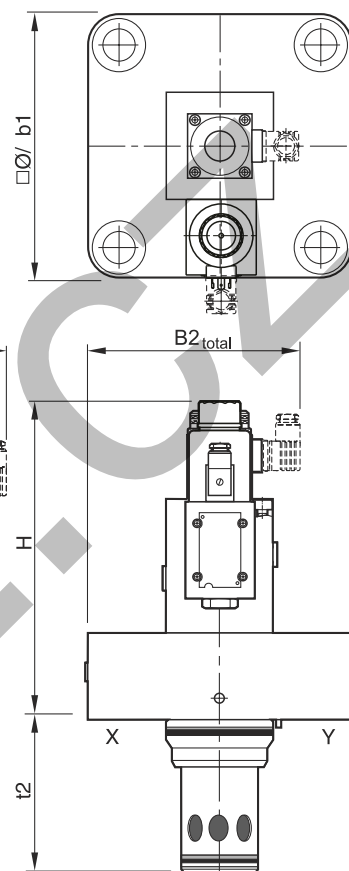
Code	Seal
N	NBR
V	FPM

Bold letters =
Short-term availability

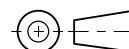
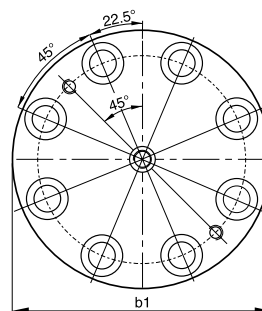
¹⁾ To be used in combination with rectifier plugs at 120 VAC / 230 VAC power supply.

Technical data

General	
Design	2-way proportional throttle valve, slip-in cartridge according to ISO 7368
Nominal size	NG25 NG32 NG40 NG50 NG63 NG80 NG100
Mounting position	unrestricted
Ambient temperature	[°C] -20...+60
MTTF _D value	[years] 75
Weight	[kg] 7.5 9 13 22 38 62 85
Extracting tools	See accessories
Hydraulics	
Max. operating pressure	[bar] Ports A, B and X up to 350, port Y max. 10
Fluid	Hydraulic oil according to DIN 51524
Fluid temperature	[°C] -20...+70 (NBR: -25...+70)
Viscosity, permitted recommended	[cSt]/[mm ² /s] 20...400 [cSt]/[mm ² /s] 30...80
Filtration	ISO 4406 (1999); 18/16/13
Nominal flow Δp = 10 bar	[l/min] 500 950 1400 2300 4000 6000 9500
Pilot pressure, min.	[bar] > 25 % of system pressure
Pilot oil supply	Depending on flow direction A or B using X or external X
Pilot oil at p = 100 bar	[l/min] Port X → Y < 1.5
Opening point	At 30 % of nominal current
Manufacturing tolerance	[%] ±5 of Q _{nom}
Static/dynamic	
Response time at p _x = 50 bar	[ms] 25 30 35 45 55 65 80
Hysteresis	[%] < 3
Repeatability	[%] < 1
Electrical (proportional solenoid)	
Duty ratio	100 % ED
Protection class	IP65 according to EN 60529 (with correctly mounted plug-in connector)
Solenoid	Code L X
at size	16-50 63-100 16-50 63-100
Solenoid voltage	[V] 6 16
Nominal current (100 % ED)	[A] 2.6 1.05
Nominal resistance	[Ohm] 2.2 2.5 11.3 14
Power amplifier, recommended	PCD 00A-400, Connector as per EN 175301-803
Pilot valve	4/2 flow control valve type D1VW (NG25-NG50), type D3DW (NG63-NG100)

Dimensions**2-Way Prop. Throttle Valve with Shut-Off Valve
Series TEA****TEA NG25...50****TEA NG63...100**

Size	25	32	40	50	63	80	100
H	239	250	260	270	312	337	352
b1	85	102	125	140	180	Ø 250	Ø 300
d1 ^{H7}	45	60	75	90	120	145	180
d2 ^{H7}	34	45	55	68	90	110	135
t2 ^{+0.1}	72	85	105	122	155	205	245
B2 _{total}	98	106	118	125	158	193	218
B3 _{total}	208	205	216	224	255	290	315



NG	Kit	ISO 4762-12.9		NBR	Kit	FPM
25	BK391	4x M12x50	108 Nm	SK-TEAN10E25		SK-TEAN10E25V
32	BK415	4x M16x55	264 Nm	SK-TEAN10E32		SK-TEAN10E32V
40	BK416	4x M20x70	517 Nm	SK-TEAN10E40		SK-TEAN10E40V
50	BK417	4x M20x75	517 Nm	SK-TEAN10E50		SK-TEAN10E50V
63	BK418	4x M30x100	1775 Nm	SK-TEAN10E63		SK-TEAN10E63V
80	BK419	8x M24x120	890 Nm	SK-TEAN10E80		SK-TEAN10E80V
100	BK420	8x M30x140	1775 Nm	SK-TEAN10E100		SK-TEAN10E100V