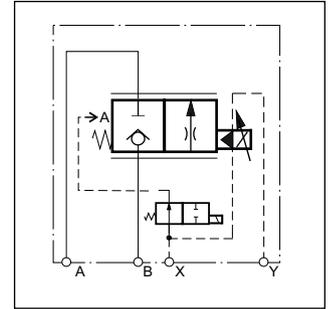
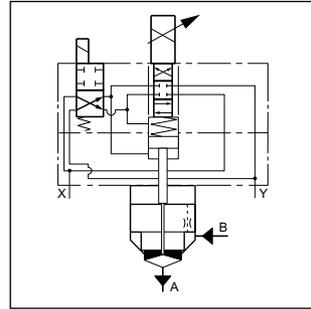


Characteristics

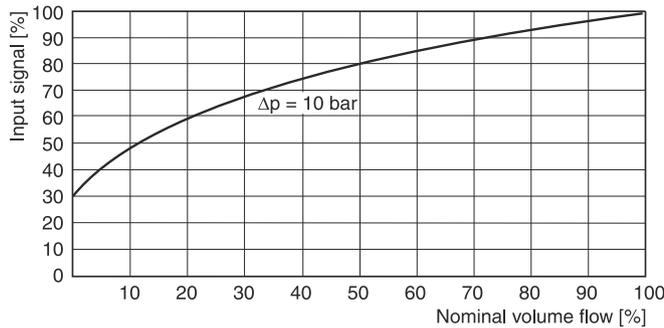
Accumulator discharge valves series TEA are preferably used in hydraulic systems where high flow rates are discharged from hydraulic accumulators over a short operating period (in the range of milliseconds). Typical applications are injection molding and die casting machines as well as hydraulic presses.

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.

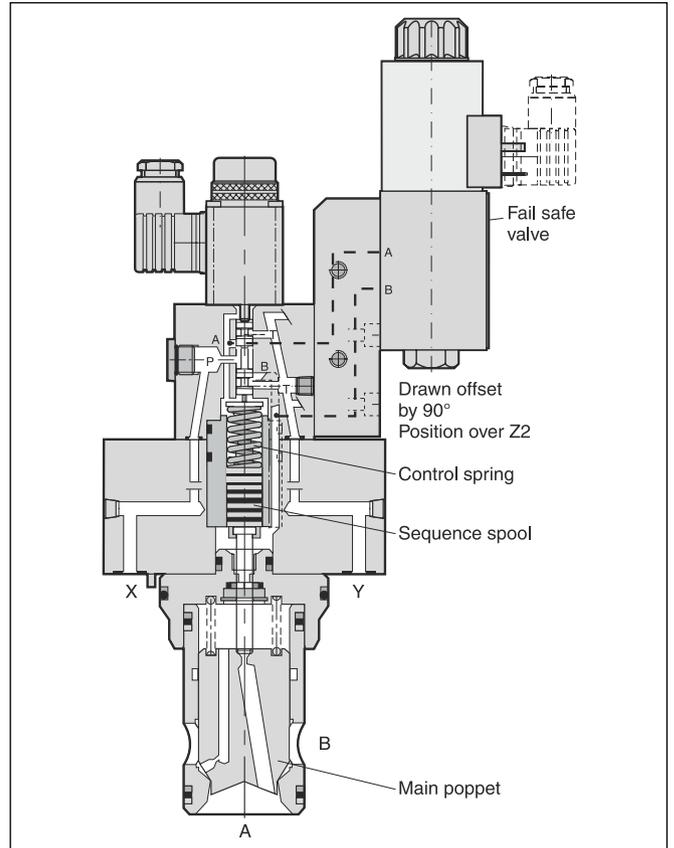
The directional valve provides the safety function. When the solenoid is deenergized and the spring is in end position, pilot pressure from X presses the control piston into lower end position and the main poppet is closed. As a result the flow from B to A or from the reservoir system to the machine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



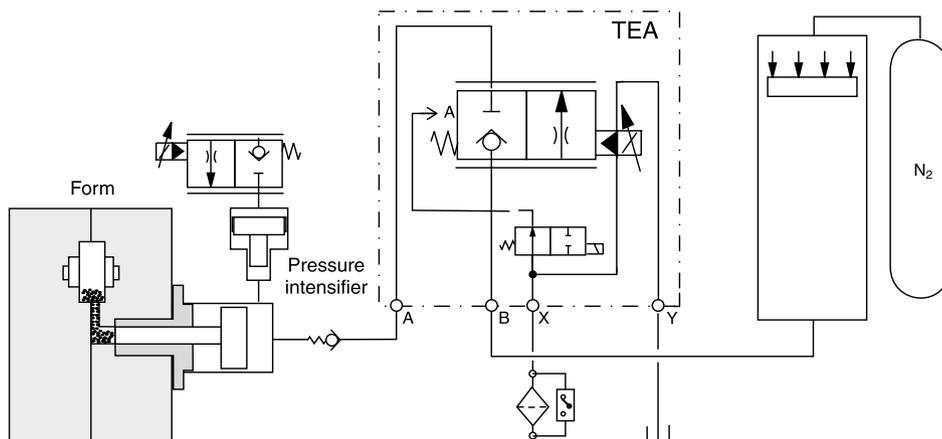
Characteristic curve



Characteristic curve measured with HLP46 at 50 °C.



Example accumulator system in a die casting machine



Ordering Code / Technical Data

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

Bold letters = Short-term availability

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

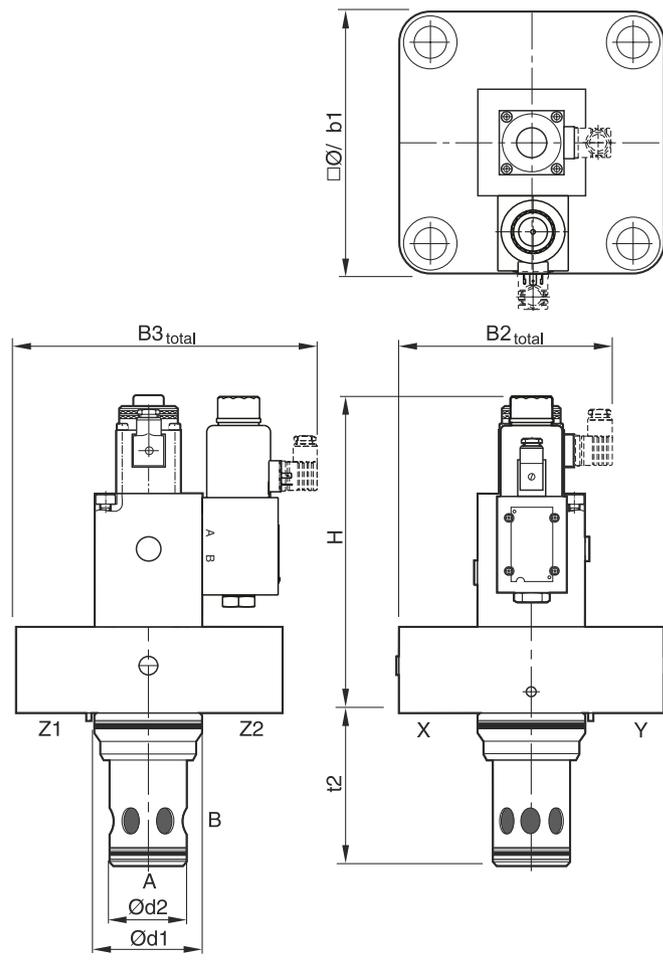
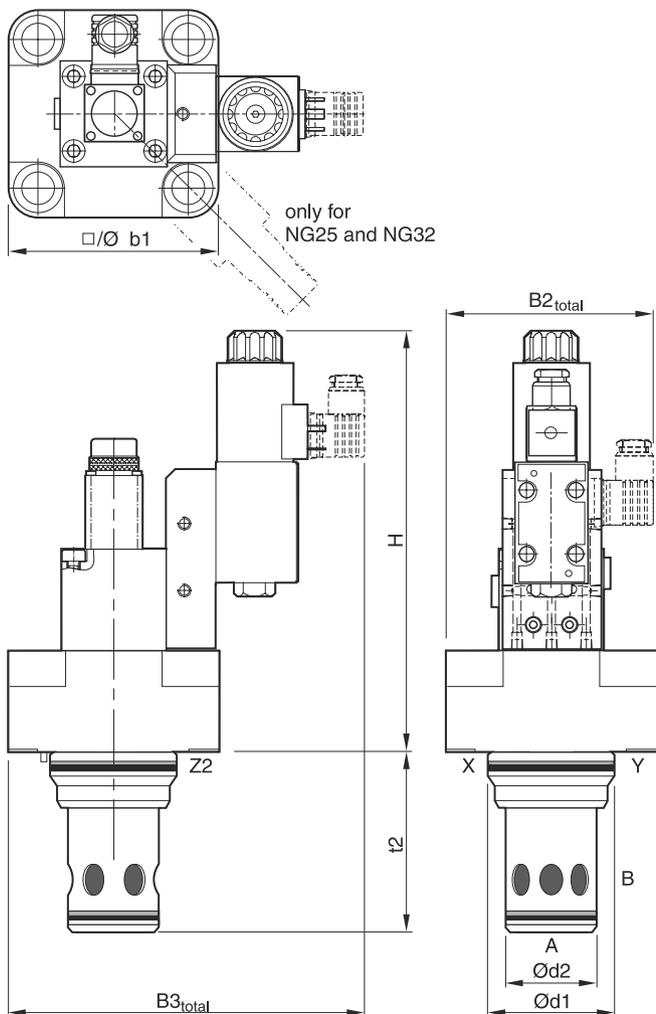
¹⁾ To be used in combination with rectifier plugs at 120 VAC / 230 VAC power supply.

Technical data

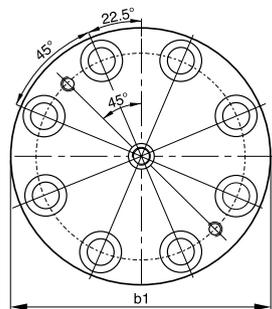
General								
Design	2-way proportional throttle valve, slip-in cartridge according to ISO 7368							
Nominal size	NG25	NG32	NG40	NG50	NG63	NG80	NG100	
Mounting position	unrestricted							
Ambient temperature	[°C] -20...+60							
MTTF _D value	[years] 75							
Weight	[kg] 7.5	9	13	22	38	62	85	
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	[cSt]/[mm ² /s]	20...400						
		recommended	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 Qnom						
Static/dynamic								
Response time at px = 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 at size	Code	L			X			
		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)							

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		Kit	
				NBR	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