

# Throttle check valve

## Type SD700/SDRV700

NG 6 / 700 bar  
up to 25 l/min

### Features

- Adjustable while under pressure
- High-precision control
- Bi-directional flow



### Design

- Cartridge alone or in manifolds
- The valve setting can be locked by a counter nut

### Applications

- Moving speed of the customer can be influenced with the valves
- Throttle valves for inlet and outlet throttling
- Throttle check valves as screw/in cartridge or intermediate plate valve (for applications where the flow shall be throttled in one direction and be unthrottled in the other direction)
- Check valves as screw/in cartridge or intermediate plate valve



### Technical data

Hydraulic fluid	Mineral oil according to DIN 51524 (other fluids on request)	
Fluid temperature range	-20 to 80 °C	
Ambient temperature range	-30 to 50 °C	
Viscosity range	5 to 400 mm <sup>2</sup> /s	
Porting	NG 6 according to DIN 24340 / ISO 4401:2005 / CETOP RP 121 H	
Max. operating pressure port P, A and B	700 bar	
Max. operating pressure port T	350 bar	
Max. flow rate	25 l/min	
Filtration (recommendation)	According to NAS 1638, class 6 resp. ISO/DIN 4406 class 17/15/12	
Weight	See type table	
Materials	Steel parts:	galvanized, black chromated
	Cartridge:	steel
	Supporting ring:	cast iron

## Key sheet

Example		SDRV	700	-	6	-	AABB	-	Z	-	V	-	A		00
<b>Throttle valve</b>	SD														
<b>Throttle check valve</b>	SDRV														
<b>Type</b>	BV700														
<b>Port size</b>	6														
<b>Throttle valve SD</b>															
<b>E</b>	Cartridge														
<b>PP</b>	Throttle valve in P														
<b>AA</b>	Throttle valve in A														
<b>BB</b>	Throttle valve in B														
<b>Throttle check valve SDRV</b>															
<b>AA</b>	Throttle check valve in A														
<b>BB</b>	Throttle check valve in B														
<b>AABB</b>	Throttle check valve in A and B														
<b>Direction of throttling</b>															
<b>X</b>	For throttle valve														
<b>Z</b>	Outgoing throttling														
<b>A</b>	Return throttling														
<b>Seal material</b>	V [FPM] other seal materials on request														
		<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>Special design</b> 01 ... 99 (00 for standard)         </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>Part index</b> Please leave blank (small letters a-d; different letters do not effect interchangeability)         </div> <div style="border: 1px solid black; padding: 5px;"> <b>Desing revision</b> Capital letters A-Z; identical letters equal same connecting dimensions         </div>													

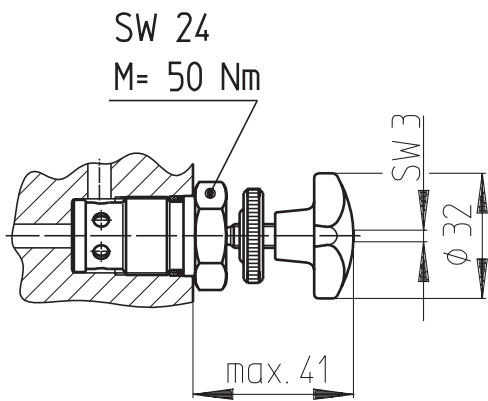
## Cartridge throttle valve

Type code	Part No.	Weight [kg]
SD700-6-E-X-V-A*00	3677847	0,12

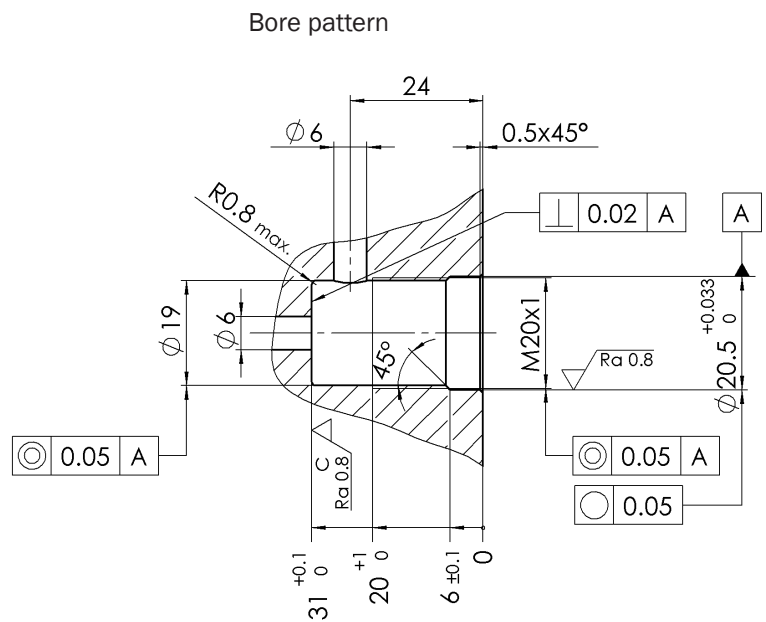
### Hydraulic schematic



### Dimensional drawing



### Bore dimensions



## Cartridge check valve

See documentation ZP700/BL700/RV700

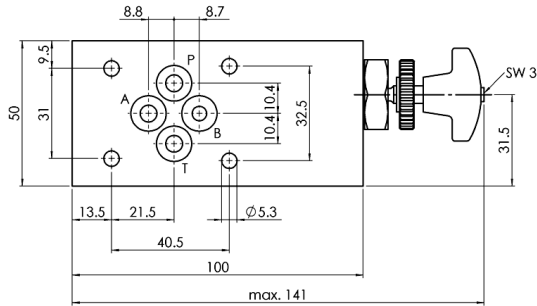
**Type SD700 / SDRV700**

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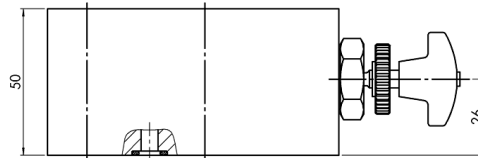
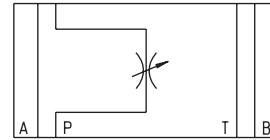
**Throttle valves**

Type code	Part No.	Weight [kg]
SD700-6-PP-X-V-A*00	3677849	1,9

**Dimensional drawing**

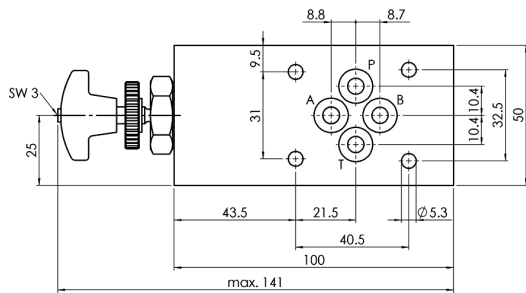


**Hydraulic schematic**

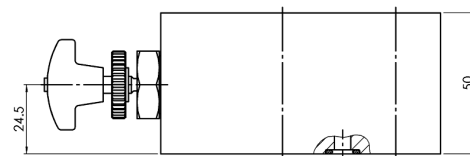
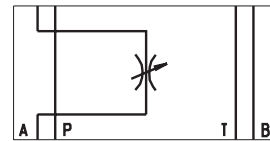


Type code	Part No.	Weight [kg]
SD700-6-AA-X-V-A*00	3677843	1,9

**Dimensional drawing**

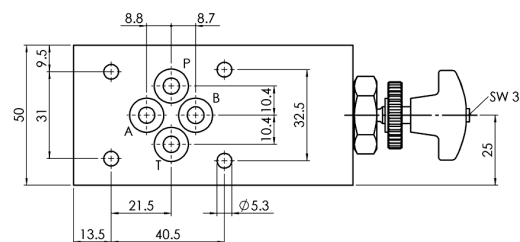


**Hydraulic schematic**

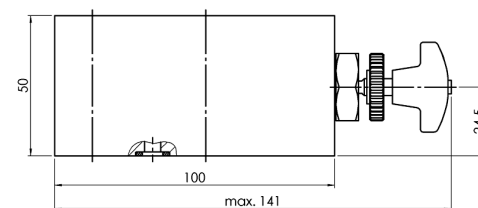
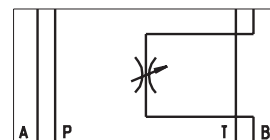


Type code	Part No.	Weight [kg]
SD700-6-BB-X-V-A*00	3677845	1,9

**Dimensional drawing**



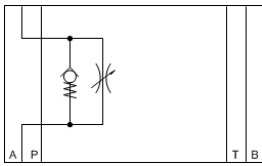
**Hydraulic schematic**



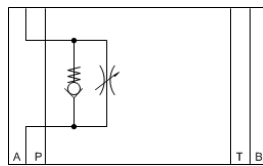
## Throttle check valves

Type code	Part No.	Weight [kg]
SDRV700-6-AA-A-V-A*00	3677850	1,9
SDRV700-6-AA-Z-V-A*00	4003008	1,9

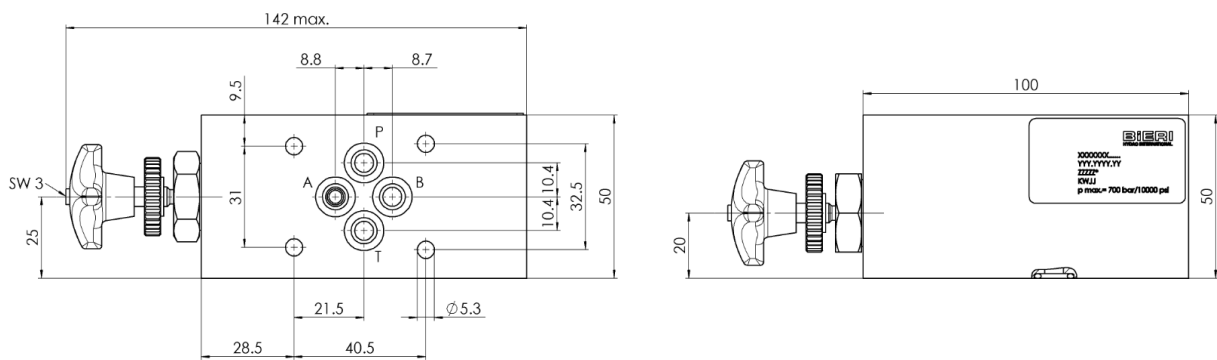
### Hydraulic schematic A (Return throttling)



### Hydraulic schematic Z (Outgoing throttling)



### Dimensional drawing

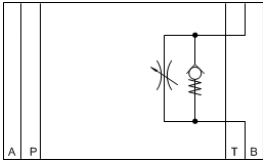


Type SD700 / SDRV700

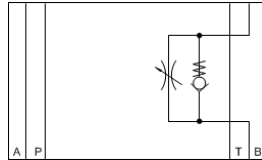
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up to 25/min

Type code	Part No.	Weight [kg]
SDRV700-6-BB-A-V-A*00	3677853	1,9
SDRV700-6-BB-Z-V-A*00	4003009	1,9

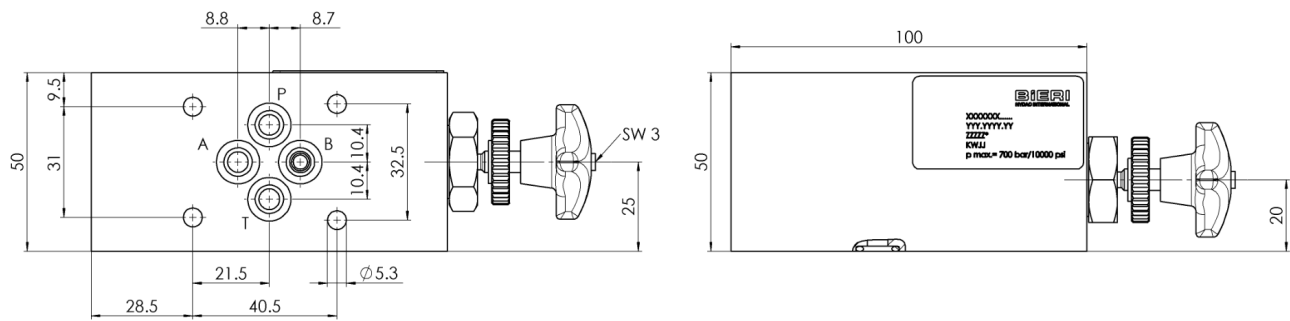
Hydraulic schematic A (Return throttling)



Hydraulic schematic Z (Outgoing throttling)

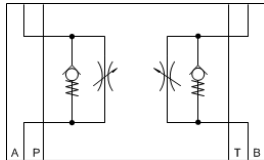


Dimensional drawing

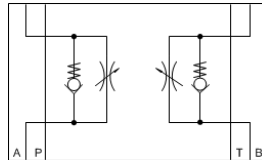


Type code	Part No.	Weight [kg]
SDRV700-6-AABB-A-V-A*00	4003013	1,9
SDRV700-6-AABB-Z-V-A*00	3823668	1,9

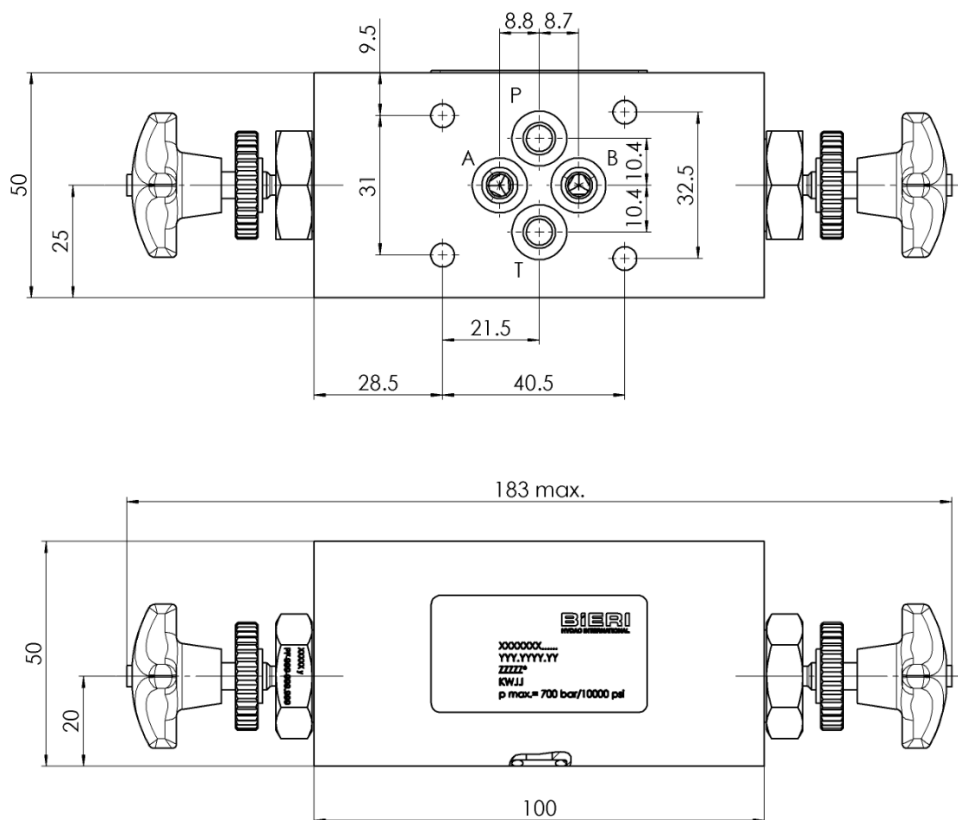
Hydraulic schematic A (Return throttling)



Hydraulic schematic Z (Outgoing throttling)



Dimensional drawing



**Characteristics**  $\Delta p(Q)$

