

## 2/2-WAY PRESSURE-CONTROLLED VALVE, DIRECT OPERATED

**Description:**

- 2/2-way pneumatic controlled valve seat
- with plastics cylinder
- seat valve with poppet design
- direct operated
- body in red brass or stainless steel design
- female thread acc. to ISO228
- any installation position
- with positioning indicator

**Range of application:**

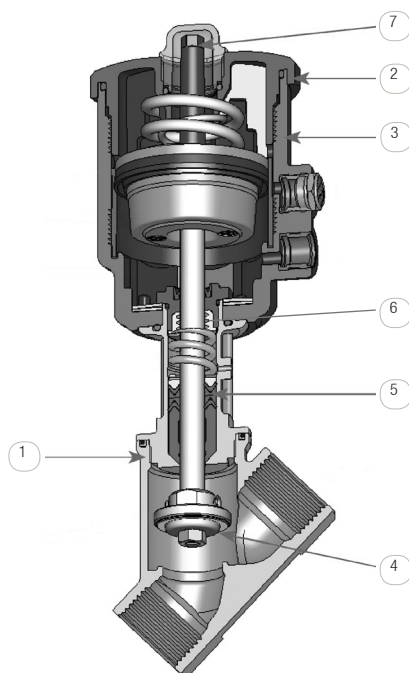
- viscosity 600mm<sup>2</sup>/s
- medium temperature -20°C up to +180°C
- ambient temperature: -10°C up to +60°C
- working pressure 0 up to 20bar (see table)
- pilot pressure 2 up to 10 bar
- for hot and cold water, oil and air, in stainless steel for aggressive media
- Control medium air, Inert gases and neutral liquids
- actuator rotatable 360°

**Comments:**

Please note the **flow direction**. Any flow direction with double acting piston-drive.

Other operating pressures on request. Valves also available as "normally open" (NO) with design closing against the medium. Flange design on request.

**Threads according to EN 228:** It describes the threaded connection of a parallel male thread with a parallel female thread and is marked with "G".



pos.	part	red brass		stainless steel	optional material		
1	body	red brass	B	AISI 316L	O		
2	cover	Polyamide PA6		AISI 316L			
3	cylinder	Polyamide PA6		Polyamide PA6			
4	seat sealing	PTFE (TFM1600)	T	PTFE	T		
5	sealing for spindle	PTFE-Graphit (25%)	T	PTFE	T		
6	lip seals	FKM		FKM			
7	Position indicator						

Wear parts can vary depending on the valve design.

Service-set: lip seals, o-ring, seat sealing, body seal

spindle seal set: V-collar

**Options:**

- HA: manual override
- GM: basic quantity setting
- VU: vacuum design up to 10<sup>-2</sup> mbar
- NPT: pipe thread ANSI B 1.20.1
- PS: position switch
- AS: welding ends
- TH: high temperature design up to +200°C
- EX: explosion protection acc. to ATEX II 2 GD c TX
- ZG: certificate / approval
- DW: double acting actuator
- NO: opened in rest position
- UN: universal design - bidirectional flow-through

For details about the order code see "Order information". An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

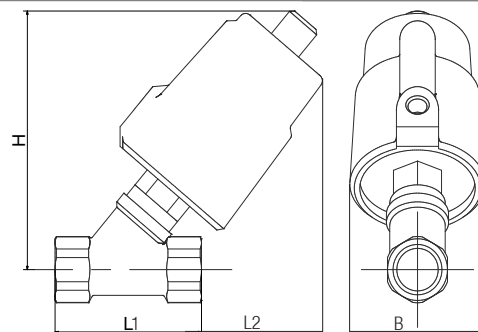
## 2/2-WAY PRESSURE-CONTROLLED VALVE, DIRECT OPERATED

\* The design "compact" is only available in G1" and red brass.

\*\* **CV-value:** The nominal flow rate CV according to VDI / VDE 2173 is the water quantity in m<sup>3</sup>/h for the flow direction with the pressure difference  $\Delta p = 1$  bar and a medium temperature between +5°C and 30°C.

\*\*\* indicated is the maximum pressure range at a pilot pressure of 6 bar, specifications on other pilot pressures on request

\*\*\*\* Manipulating time determined under the following conditions: pressureless, 6bar pilot pressure, control medium air.

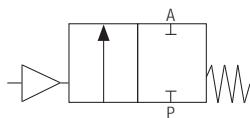


match code	size			working pressure***				dimension				weight [kg]	CV value** [m <sup>3</sup> /h]	manipulating time	
				NO closed with the medium		NC closed against the medium								open	close
	connection [inch]	nominal size [mm]	control pressure intensifier [mm]	type	pressure [bar]	type	pressure [bar]	L1	L2	H	B				
design „compact“															
DSB2050-04xTT150-xxx	1/2	15	45	12Q	0-16	42Q	0-16	65	144	123	57	0.8	4.50	0.09	0.22
DSB2050-04xTT200-xxx	3/4	20	45	12Q	0-16	42Q	0-15	75	149	126	57	0.9	7.98	0.09	0.22
DSB2050-04BT250-xxx	1*	25	45	12Q	0-14	42Q	0-9,5	90	168	141	57	1.1	12.48	n/a	n/a
design „standard“															
DSB2050-04xTT150-xxx	1/2	15	63	13Q	0-20	43Q	0-16	65	192	171	85	1.2	5.22	0.14	0.3
DSB2050-05xTT200-xxx	3/4	20	63	13Q	0-20	43Q	0-16	75	198	176	85	1.3	9.84	0.2	0.3
DSB2050-06xTT250-xxx	1	25	63	13Q	0-20	43Q	0-16	90	212	185	85	1.5	15.60	0.32	0.34
DSB2050-06xTT250-xxx	1	25	90	14Q	0-20	44Q	0-16	90	223	196	112	2	15.60	0.32	0.34
DSB2050-07xTT320-xxx	1 1/4	32	63	13Q	0-16	43Q	0-13	110	225	193	85	1.9	24.60	0.34	0.38
DSB2050-07xTT320-xxx	1 1/4	32	90	14Q	0-16	44Q	0-16	110	234	202	112	2.4	24.60	0.36	0.4
DSB2050-08xTT400-xxx	1 1/2	40	63	13Q	0-8	43Q	0-8,5	120	230	198	85	2.1	41.99	0.34	0.38
DSB2050-08xTT400-xxx	1 1/2	40	90	14Q	0-16	44Q	0-16	120	239	207	112	2.6	41.99	0.4	0.46
DSB2050-09xTT500-xxx	2	50	63	13Q	0-6,5	43Q	0-7	150	248	207	85	2.9	56.99	0.36	0.38
DSB2050-09xTT500-xxx	2	50	90	14Q	0-12,5	44Q	0-13	150	257	216	112	3.3	56.99	0.4	0.46

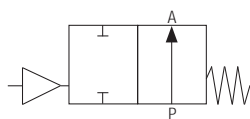
the working pressure for the options "any flow direction (UN)" and "actuator double acting (DW)":

match code	UN design			DW design		match code	UN design			DW design	
	type	Pressure [bar] with medium	Pressure [bar] against medium	type	pressure [bar]*		type	Pressure [bar] with medium	Pressure [bar] against medium	type	pressure [bar]*
design „compact“:											
DSB2050-04xTT150-xxx	72Q	0-13	0-16	92Q	0-16	DSB2050-04xTT150-xxx	73Q	0-16	0-16	93Q	0-16
DSB2050-04xTT200-xxx	72Q	0-4	0-7	92Q	0-16	DSB2050-05xTT200-xxx	73Q	0-16	0-16	93Q	0-16
DSB2050-04BT250-xxx	72Q	0-3,5	0-5	92Q	0-11	DSB2050-06xTT250-xxx	73Q	0-13	0-11	93Q	0-16
						DSB2050-06xTT250-xxx	74Q	0-16	0-14	94Q	-
						DSB2050-07xTT250-xxx	73Q	0-11,5	0-6	93Q	0-16
						DSB2050-07xTT250-xxx	74Q	0-16	0-12	94Q	-
						DSB2050-08xTT250-xxx	73Q	0-6	0-4	93Q	0-16
						DSB2050-08xTT250-xxx	74Q	0-16	0-8	94Q	-
						DSB2050-09xTT250-xxx	73Q	0-3	0-2,5	93Q	0-12
						DSB2050-09xTT250-xxx	74Q	0-8	0-6	94Q	-

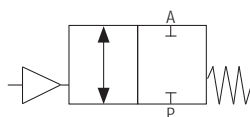
\* The operating pressures for the type "double-acting" are valid for both flow directions (closing with and against media)

**function:****function NC (normally closed valve)**

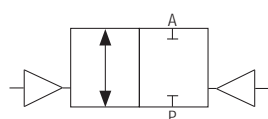
**Typ1xx:** normally closed (NC), single-acting.

**function NO (normally opened valve):**

**Typ4xx:** closed against medium, single-acting.

**any flow direction (UN):**

**Typ7xx:** for any flow direction (-UN), rest position is closed the medium. For the design NC / against the medium-closing, please use the UN-type (any flow direction).

**double acting actuator (DW)**

**Typ 9xx:** double acting universal design

**Optionally available:**

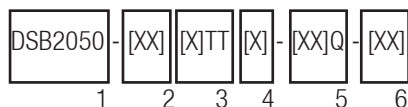
The GMV3197 as 3/2-way pilot valve, directly controlled, for controlling the compressed air cylinder. For large nominal sizes, we recommend the GMV3164 for faster closing times.



detailed information in the product section "solenoid valves"

At **risk of water hammer** in the piping system, we recommend the installation of a valve that closes against the medium. For the design NC / against the medium-closing, please use the UN-type (any flow direction).

The design double-acting is also for any flow direction.

**Order information:**

**1: type:** DSB2050

**2: connection size:** 04-09 (see table)

**3: materials:**

- 1. digit: body material  
B = red brass  
O = stainless steel
- 2. digit: sealing for spindle and  
3. digit: seat sealing  
T = PTFE

**4. nominal size in 1/10mm (see table)**

**5: Type of the pressure cylinder (other types on request)**

- 1. digit: specification of the function  
1 = closed with medium, NC, single acting  
4 = closed with medium, NO, single acting  
7 = any flow direction, NC, single acting  
9 = any flow direction, double acting
- 2. digit: specification of the cylinder diameter:  
2: Ø50  
3: Ø70  
4: Ø80
- 3. digit: cylinder material    Q = plastics

**6: options (see "options")**

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!