

- High cycle life
- Cost effective ball valve alternative
- High operating safety:
  - Maintenance-free spring loaded packing with intermediate relief and wiper
  - Self aligning PTFE seal/plug
- Optical position indication standard
- Cost-savings in operation due to minimized control air consumption
- Low Lifecycle costs

The pneumatically-operated 2/2-way Y-pattern valve is operated by an ultra-compact piston actuator. Despite the small dimensions of the actuator, high pressure can be switched without problems.

The Y-pattern construction of the body makes possible extremely high flow rates, particularly in comparison to conventional globe valves. The proven, self-adjusting and maintenance-free Burkert packing glands ensure high sealing integrity.

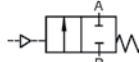
Technical data	
<b>Orifice</b>	3/8" – 3/4" (DN10–20)
<b>Body material</b>	Investment casting 316L or bronze
<b>Actuator material</b>	PA, PPS
<b>Plug seal material</b>	PTFE (NBR, FKM and EPDM on request)
<b>Media</b>	Water, alcohol, oils, fuel, salt solution, alkali solutions, organic solvents steam at 150 PSI / 365°F
<b>Viscosity</b>	Max. .93 in <sup>2</sup> /s (600 cSt, 600 mm <sup>2</sup> /s)
<b>Packing gland</b>	PTFE (with silicone grease)
<b>Media pressure</b>	232 PSI (16 bar)
<b>Media temperature<sup>1)</sup></b>	14°F to 365°F (-10°C to 185°C) with PTFE seal
<b>Ambient temperature PA actuator<sup>1)</sup></b> Actuator sizes up to Ø 40	14°F to 140°F (-10°C to 60°C)
<b>PPS actuator</b> Actuator sizes Ø 40	41°F to 284°F (5°C to 140°C)
<b>Installation</b>	As required, preferably with actuator in upright position
<b>Control medium</b>	Neutral gases, air
<b>Max. pilot pressure</b> Actuator size Ø 40	PA and PPS 145 PSI (10 bar)
<b>Applications</b>	Systems engineering Food processing Chemical process technology Sterilizers and autoclaves
<b>Benefits</b>	Available in normally open, normally closed or double acting configurations Bronze or stainless steel body High flow rate Body available as option with external thread Available with several pilot valve options

1) See chart on page 4

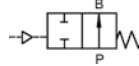
**Technical data**

**Control Functions**

**A** – 2/2-way valve, normally closed spring return

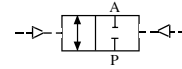


**B** – 2/2-way valve, normally open spring return



**Control Function**

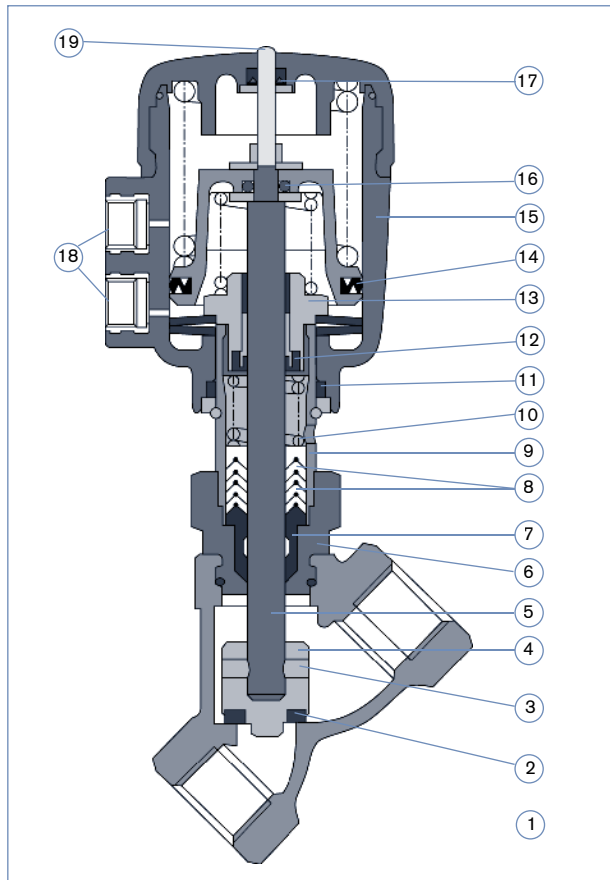
**I** – 2/2-way valve with double-acting actuator without spring return



Operating data, valve	
<b>Valve body material</b>	Bronze, stainless steel
<b>Port Connection</b>	NPT 3/8", 1/2", 3/4"
<b>Orifice</b>	1/2" – 3/4"
<b>Max. operating pressure (medium)</b>	0 – 232 PSI 0 – 150 PSI (for steam)
<b>Sealing material</b>	(See materials)
<b>Fluids</b>	Water, alcohols, oils, fuels, hydraulic liquids, salt solutions, alkalis, steam
<b>Temperature of medium</b>	14°F to 365°F
<b>Ambient temperature</b>	14°F to 140°F
<b>Max. viscosity</b>	600 cSt, .93 in <sup>2</sup> /s

Operating data, actuator	
<b>Minimum control pressure</b>	See pressure diagram (dependent on control function)
<b>Max. permissible control pressure</b>	145 PSI
<b>Control medium</b>	Neutral gases, air
<b>Control connection</b>	G 1/8"
<b>Installation position</b>	As required, but preferably with actuator upright

**Materials**

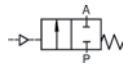


	Construction	
	Bronze	Stainless Steel
1. Valve body:	Bronze	CF-8M SS
2. Seals:	PTFE	PTFE
3. Pins:	316L SS	316 SS
4. Swivel plate:	Brass	316 SS
5. Spindle:	420 SS	316 SS
6. Nipple:	Brass	316 SS
7. Wiper:	PTFE	PTFE
8. V-seals:	PTFE	PTFE
9. Tube:	Brass	316 SS
10. Tension spring:	301 SS	301 SS
11. O-ring:	FKM	FKM
12. Lip seal:	FKM	FKM
13. Screw:	Brass	Brass
14. Cylinder seal:	NBR	NBR
15. Actuator casing:	Polyamide	Polyamide
16. O-ring:	NBR	NBR
17. Lip seal:	NBR	NBR
18. Ports G 1/8:	Brass	303 SS
19. Position indication:	420 SS	316 SS

DTS 1000082413 EN Version: B Status: RL (released) freigegeben | validé printed: 22.09.2017

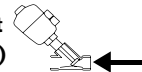
Characteristic values with ordering information (other models on request)

Control Function A  
(Normally closed)



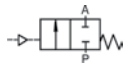
58 PSI minimum pilot

Flow Under Seat  
(Waterhammer-free)



Port Connection	Orifice [inch]	C <sub>v</sub> Rating	Weight [lbs]	Maximum Operating Pressure	Order No.	
					Valve body material* Bronze	Stainless steel
3/8" NPT	1/2	4.3	1.6	215 PSI	459 050 P	459 053 E
1/2" NPT	1/2	4.4	1.6	215 PSI	456 024 N	456 025 P
3/4" NPT	3/4	9.2	2.0	92 PSI	456 026 Q	456 027 R

Control Function A  
(Normally closed)



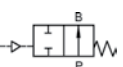
See pressure diagram for pilot pressure

Flow Above Seat



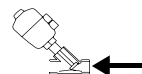
Port Connection	Orifice [inch]	C <sub>v</sub> Rating	Weight [lbs]	Maximum Operating Pressure	Order No.	
					Valve body material* Bronze	Stainless steel
3/8" NPT	1/2	4.3	1.6	232 PSI	459 049 J	459 052 D
1/2" NPT	1/2	4.4	1.6	232 PSI	456 041 X	456 042 Y
3/4" NPT	3/4	9.2	2.0	232 PSI	456 043 Z	456 044 S

Control Function B  
(Normally open)



See pressure diagram for pilot pressure

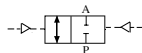
Flow Under Seat  
(Waterhammer-free)



Port Connection	Orifice [inch]	C <sub>v</sub> Rating	Weight [lbs]	Maximum Operating Pressure	Order No.	
					Valve body material* Bronze	Stainless steel
3/8" NPT	1/2	4.3	1.6	232 PSI	459 051 C	459 054 F
1/2" NPT	1/2	4.4	1.6	232 PSI	456 034 Q	456 035 R
3/4" NPT	3/4	9.2	2.0	232 PSI	456 023 M	456 036 J

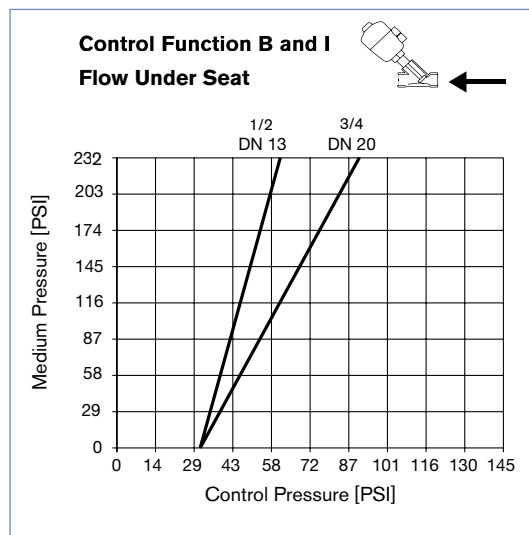
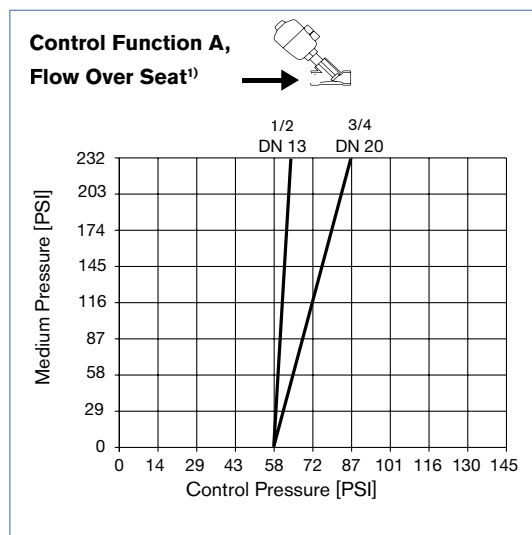
Note: Weight is the same for both stainless steel or bronze valve body material

Control Function I  
Flow under seat  
(on request)



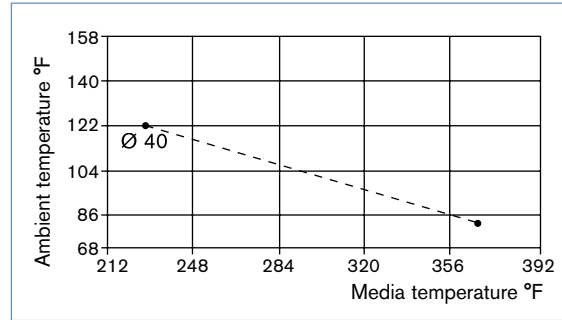
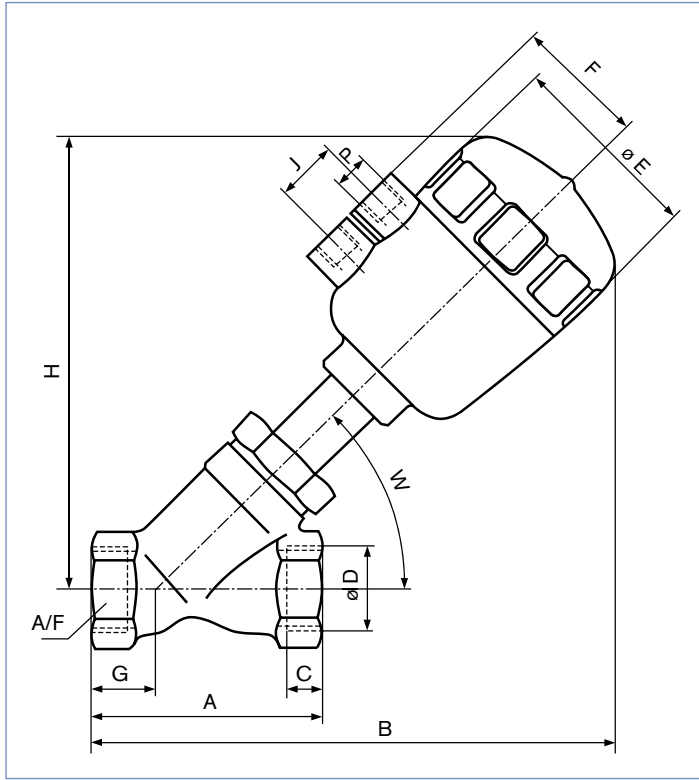
DTS 1000082413 EN Version: B Status: RL (released | freigegeben | validé) printed: 22.09.2017

Pressure diagrams



<sup>1)</sup>Flow under seat: Minimum control pressure 58 PSI

**Dimensions [mm]**



For media and ambient temperature combinations above this line, a PPS actuator with FKM seals should be used.

**Port Connection NPT-Thread**

øD Port Connection	Body Material	Orifice [inch]	W	A	B	C	øE	F	G	H	J	P	A/F
			Degree										(wrench flats)
NPT 3/8	Bronze	1/2	42	2.56	5.36	0.41	2.09	1.30	0.75	4.61	0.65	G 1/8	1.06
NPT 3/8	Stainless steel	1/2	45	2.56	5.56	0.41	2.09	1.30	0.75	4.45	0.65	G 1/8	1.06
NPT 1/2	Bronze	1/2	42	3.35	5.36	0.55	2.09	1.30	1.30	4.49	0.65	G 1/8	1.06
NPT 1/2	Stainless steel	1/2	45	3.35	5.56	0.55	2.09	1.30	1.30	4.49	0.65	G 1/8	1.06
NPT 3/4	Bronze	3/4	42	3.74	5.71	0.55	2.09	1.30	1.42	4.69	0.65	G 1/8	1.26
NPT 3/4	Stainless steel	3/4	45	3.74	5.90	0.55	2.09	1.30	1.42	4.69	0.65	G 1/8	1.26

**Air connector adapters (order separately)**

øP Port connection	Material	Item no.
G 1/8 male x 1/8 NPT female	nickel plated brass	US61425
G 1/8 male x swivel elbow 1/4 OD tube push connect	nickel plated brass	US63251
G 1/8 muffler	sintered bronze	005 305 D
G 1/8 silenor	polyethylene	CD03892