



Application

Control valve for hygienic applications in the food and beverage as well as pharmaceutical industries

Nominal size	DN 6 to 150	• NPS ¼ to 6
Maximum pressure	63 bar	• 914 psi
Medium temperature	-10 to 150 °C	• 14 to 300 °F

Type 3347 Angle Valve with

- Type 3271 Pneumatic Actuator
- Type 3277 Pneumatic Actuator for integral positioner attachment
- Type 3379 Pneumatic Piston Actuator
- Type 3372 Pneumatic Actuator (► T 8097-1)

Special features

- Valve body free of dead cavities made of stainless steel
- Wetted sealing materials comply with FDA regulations and EC 1935/2004
- Metal or soft-seated valve plug
- Easily detachable clamp connection between body and bonnet
- Suitable for cleaning-in-place (CIP) and sterilization-in-place (SIP)
- Internal surface finish (peak-to-valley height) $R_a \leq 0.8 \mu\text{m}$
- Compliance with 3-A regulations with modified Type 3277 Pneumatic Actuator and approved valve accessories (see also Table 1.3)

The valves can be equipped with different accessories, directly attached positioners or positioners, solenoid valves and limit switches for attachment according to IEC 60534-6 ¹⁾ and NAMUR recommendation (► T 8350).

The Type 3347/3379 Control Valve used in combination with the Type 3724 Positioner form a compact automated unit.

Versions

- Angle valves with **welding ends, threaded couplings, clamp connections or flanges**
- **Cast body or bar stock body**
- **Three plug stem seal systems:** PTFE (for most standard applications), PEEK and anti-crystallizing seal (metal centering ring with O-ring and hardened plug stem). See Fig. 11)

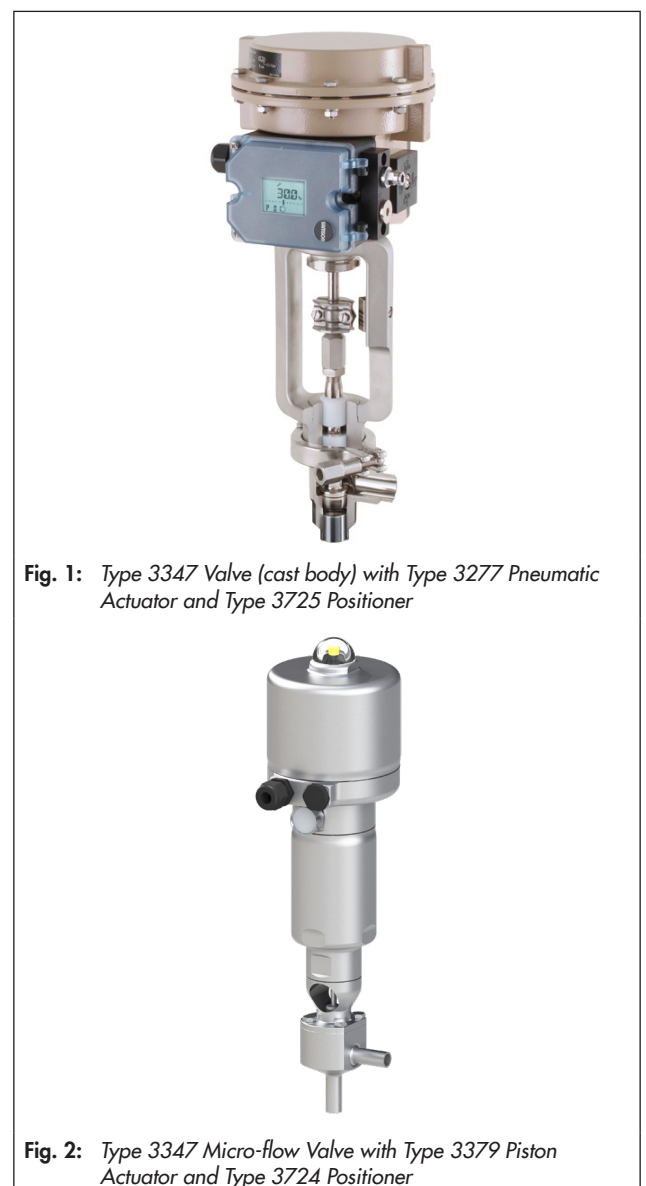


Fig. 1: Type 3347 Valve (cast body) with Type 3277 Pneumatic Actuator and Type 3725 Positioner

Fig. 2: Type 3347 Micro-flow Valve with Type 3379 Piston Actuator and Type 3724 Positioner

¹⁾ Accessories required. See associated actuator documentation.

Further versions

- **Polished valve body** (internal and/or external surfaces)
- **V-port plug** instead of a parabolic plug for better plug guidance
- **Steam barrier** for strict cleaning requirements (see Fig. 10)
- Other **body materials** on request, e.g. **1.4435**
- **High-pressure version** available
- **Heating jacket** · Details on request
- **Stellite®-faced seat**
- **High-temperature version** · 160 °C (on request)

Principle of operation (Fig. 3 to Fig. 11)

The process medium flows through the valve in the direction indicated by the arrow in the flow-to-open direction.

Fig. 3 shows the PTFE-guided version. A body and stem PTFE seal is used to seal the plug stem in the body. Fig. 5 shows the PEEK-guided version. The plug stem is additionally guided and sealed by a bushing. Fig. 10 shows the version with steam barrier. The steam barrier is used to sterilize the plug stem with steam or a sterile fluid.

The valve bonnet is fixed to the body by a clamp connection to allow the entire bonnet to be easily detached from the body. The valve bonnet can optionally be bolted onto the body using four bolts for versions with pressures above 16 bar.

Mounting orientation

We recommend installing the control valve in the upright position with the actuator on top. Other mounting positions are also possible but do not allow the pipeline to fully drain.

Fail-safe position

Depending on how the compression springs are arranged in the pneumatic actuator, the valve has two fail-safe positions that become effective when the supply air fails:

- **Actuator stem extends (fail-close):** the valve closes when the supply air fails.
- **Actuator stem retracts (fail-open):** The valve opens when the supply air fails.

Legend for Fig. 3 to Fig. 10

1	Yoke
2	Plug
3	Stem seal
4	Body
5	Travel indicator scale
8	Actuator (not shown)
8.1	Actuator stem
8.4	Stem connector
9	Stem connector nut
10	Lock nut
13	Spring
17	Washer
21	V-ring packing
23	Seal
24	Bearing bushing/wiper seal
25	Centering ring
26	O-ring seal
29	Nipple
34	Clamp

Fig. 5: Type 3347 Valve, cast body, PEEK-guided version

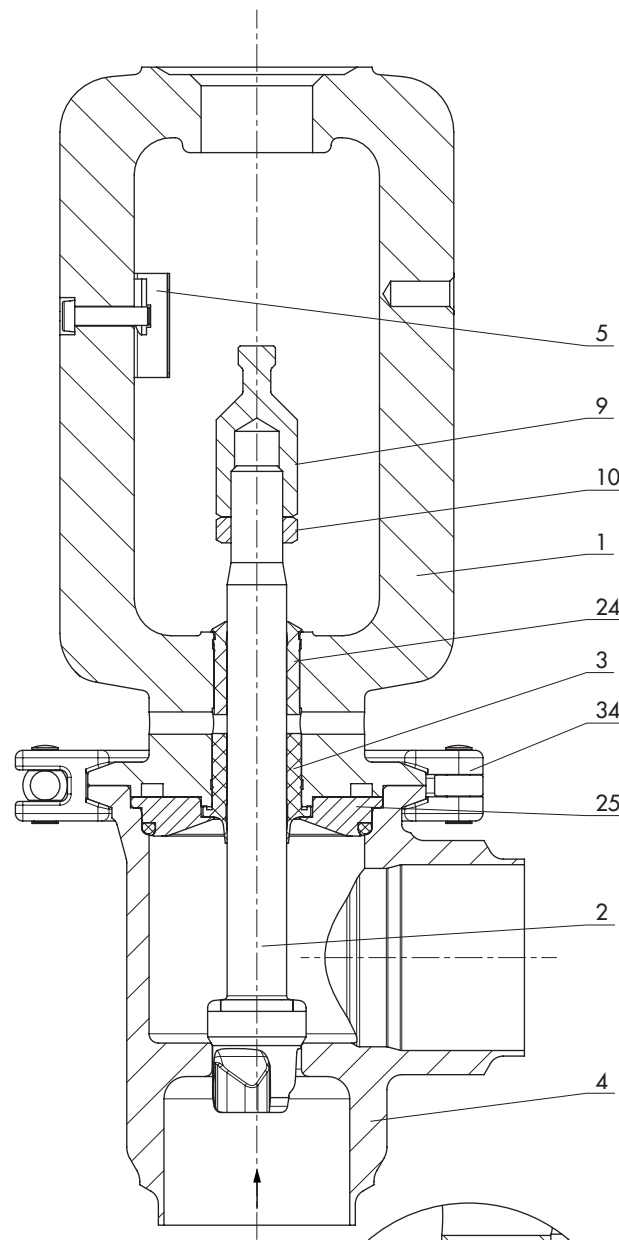


Fig. 6: Detailed view of PEEK-guided version

Fig. 7: Type 3347 Valve, bar stock body, anti-crystallizing seal system

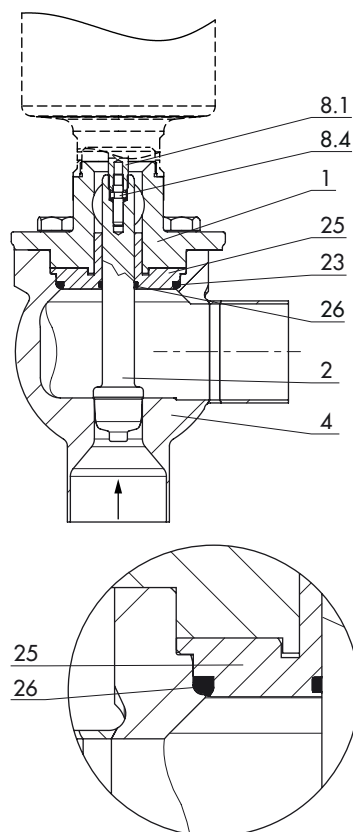


Fig. 8: Detailed view of anti-crystallizing seal system

Fig. 9: Type 3347 Valve, micro-flow valve version, PTFE-guided version

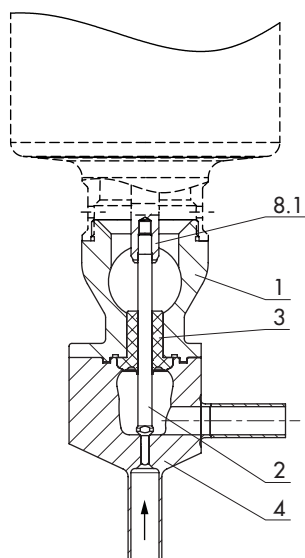
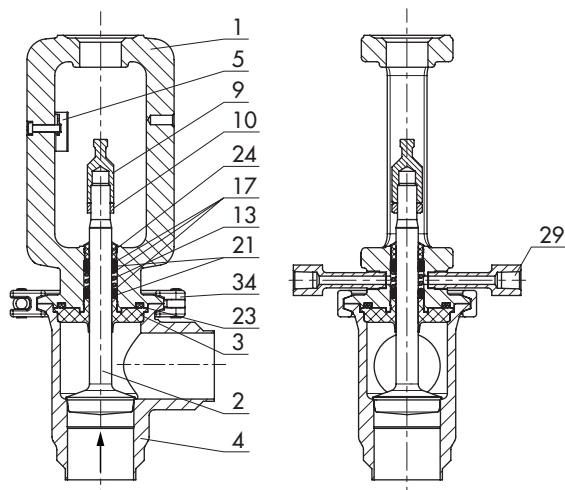


Fig. 10: Type 3347 Valve for combination with Type 3271 Actuator, cast body with steam barrier



PTFE-guided version

PEEK-guided version

Anti-crystallizing seal system

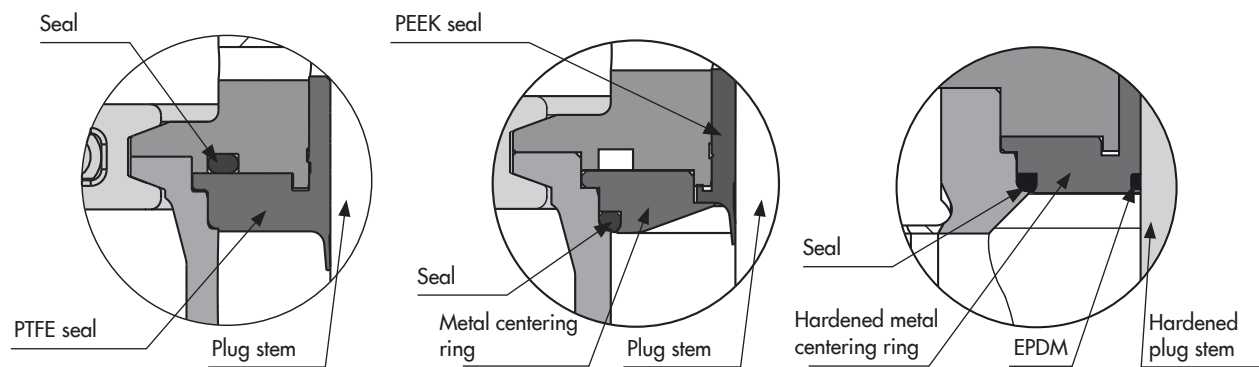


Fig. 11: Overview of seal systems in detailed view

Table 1: Technical data
Table 1.1: Type 3347 Valve

Body version ¹⁾		Micro-flow valve	Cast	Bar stock	
Nominal size		DN 6 to 25 (NPS ¼ to 1)	DN 25 to 100 (NPS 1 to 4)	DN 15 to 150 (NPS ½ to 6)	
Body/bonnet connection		Bolted bonnet	Clamp connection	Clamp connection	Bolted bonnet
Maximum pressure See Table 1.3 for restrictions		16 bar (230 psi)	16 bar (230 psi)	16 bar (230 psi)	63 bar (914 psi) ³⁾
Seat-plug seal		Metal seal · Soft seal			
Characteristic		Equal percentage or linear			
Rangeability		See Table 3.1 and Table 3.2			
Permissible medium temperature See Table 1.3 for restrictions		–10 to 150 °C (14 to 300 °F)			
Leakage class acc. to IEC 60534-4 or ANSI/FCI 70-2	Metal seal	IV			
	Soft seal	–	VI		
Surface quality	External	Glass bead blasted			
		Ra ≤ 0.6 µm · Polished			
	Internal	Ra ≤ 0.8 µm · Fine machine finish			
		Ra ≤ 0.6 µm · Polished			
		Ra ≤ 0.4 µm · Satin finish			
		Ra ≤ 0.4 µm · Mirror finish			
Versions with 3-A certification	Valve size DN/NPS	–	25 to 100 / 1 to 4	15 to 125/½ to 4	
	K _{VS} /C _V		0.4 to 200/0.5 to 190	0.4 to 200/0.5 to 190	
	Connection		See Table 1.3 All listed connections (except for SMS 1146) comply with 3-A regulations.		
	Body material		1.4409/CF3M	1.4404/316L · 1.4435/316L Generally AISI 300 (except for 301, 302, 303)	
	Internal surface finish		Ra ≤ 0.8 µm		
	Seat-plug seal		Metal seal · Soft seal		
	Plug stem guide		PTFE, PEEK and anti-crystallizing seal system		
	Other		Actuator and valve accessories mounted to meet 3-A regulation requirements.		
	Comments		Seals compliant with 3-A regulations must be used on site by the end user.		
	Version with EHEDG certification (Type EL Class I)		On request, depending on the version		
Other compliance		CFR Title 21 FDA Regulation (EC) No. 1935/2004 Regulation (EU) No. 10/2011 Regulation (EC) No. 2023/2006 USP-VI 121 °C ADI free			
Conformity ²⁾		CE · EAC			

¹⁾ Suitable for Group 2 fluids according to European Pressure Equipment Directive 2014/68/EU

²⁾ CE compliance only for versions in DN 32 with 40 bar (NPS 1¼ with 580 psi) and higher; Article 3, Paragraph 3 of PED applies to all other versions

³⁾ Maximum pressure depends on the valve end connections

Table 1.2: Type 3379 Actuator

Piston diameter	mm	63				90				150 ¹⁾				
Effective area	cm²	31				63				176				
Permissible ambient temperature	°C (°F)	-10 to 60 (14 to 140)												
Max. supply pressure	bar (psi)	7 (102) ²⁾												
Fail-safe position		Stem extends (FA)		Stem retracts (FE)		Stem extends (FA)		Stem retracts (FE)		Stem extends (FA)			Stem retracts (FE)	
Signal pressure	bar (psi)	4 (58)		6 (87)		4.5 (65)	6 (87)	4 (58)	6 (87)	4 (58)	4 (58)	4.5 (65)	4 (58)	6 (87)
Bench range	bar (psi)	2.3 to 3.7 (33.4 to 53.7)		2.3 to 3.7 (33.4 to 53.7)		2.5 to 4.0 (36 to 58)	3.3 to 5.6 (48 to 81)	1.0 to 1.9 (15 to 28)	1.0 to 1.9 (15 to 28)	1.0 to 2.3 (15 to 34)	1.4 to 3.0 (20 to 44)	2.1 to 4.6 (30 to 67)	1.0 to 2.3 (15 to 34)	1.0 to 2.3 (15 to 34)
Rated travel	mm	7.5	15	7.5	15	15	15	15	15	15	15	15	15	15
Thrust	N	710		680		1510	2260	1320	2580	1760	2280	3520	2990	6500

¹⁾ Only with clamp connection²⁾ 8 bar without positioner**Type 3271 and Type 3277 Pneumatic Actuators ► T 8310-1****Table 1.3:** End connections, maximum pressures and 3-A/EHEDG conformity

Information on all the end connections compliant with EHEDG can be found at the following link: ► <https://www.ehedg.org/guidelines-working-groups/guidelines/guidelines/detail/ehedg-position-paper>

			Nominal sizes DN/OD/NPS	P _{max} in bar at 20 °C (68 °F)		
Connection	Standard			Versions up to 16 bar (230 psi)	Versions up to 40 bar (232 psi) ¹⁾	3-A conformity
Welding ends	DIN 11866	Series A	DN 6 to 125	16	40	•
		Series B	OD 10.2 to 139.7	16	40	•
		Series C	NPS ¼ to 4	16	40	•
	ISO 1127		OD 10.2 to 114.3	16	40	•
	ISO 2037		OD 17.2 to 114.3	16	40	•
	ASME-BPE		NPS ¼ to 4	16	40	•
	JIS G3347		NPS 1 to 4	16	40	•
	JIS G3459		NPS ⅛ to 5	16	40	•
	BS 4825-1		OD 17.2 to 114.3	16	40	•
	SMS 3008		DN 10 to 100	16	40	•
Threaded couplings	DIN 11864-1 Form A	Series A	DN 10 to 40	16	40	•
			DN 50 to 10	16	16	•
		Series B	OD 13.5 to 33.7	16	40	•
			OD 42.4 to 88.9	16	16	•
	SMS 1146		DN 25 to 100	6	6	–
	ISO 2853		OD 33.7 to 48.3	16	40	• ²⁾
			OD 60.3 to 88.9	16	16	• ²⁾
	EN 11851 Form C	Series A	DN 10 to 40	16	40	• ²⁾
			DN 50 to 100	16	16	• ²⁾
Flanges	DIN 1092-1, B1		DN 10 to 125	16	40	–
	DIN 11864-2 Form A	Series A	DN 10 to 100	16	16	•
		Series B	OD 13.5 to 88.9	16	16	•
	ASME B16.5, RF		NPS ½ to 4	16	16	–

Connection	Standard	Nominal sizes DN/OD/NPS	P _{max} in bar at 20 °C (68 °F)		3-A conformity
			Versions up to 16 bar (230 psi)	Versions up to 40 bar (232 psi) ¹⁾	
Clamp connections	DIN 32676	Series A	DN 6 to 65	16	•
		Series B	OD 10.2 to 76.1	16	•
		Series C	NPS ¼ to 2½	16	•
	ISO 2852		OD 33.7 to 88.9	16	•
	BS 4825-3		NPS 1 to 3	16	•
	ASME BPE		NPS ¼ to 4	14	•
	OSS		NPS 1 to 3	16	•

¹⁾ Only with bolted bonnet and PEEK stem seal or anti-crystallizing stem seal system

²⁾ Compliance with 3-A regulations provided the groove bottom has a radius R 0.4^{+0.1}₀ (if necessary) and gaskets that meet 3-A requirements are used on site by the end user.

Table 2: Materials

Table 2.1: Type 3347 Valve

Component	Version	Material		
		DIN	ANSI	AFNOR
Body version with lathed seat	Cast	1.4409	CF3M	Z2 CND 17-12
	Bar stock	1.4404/1.4435 ¹⁾	316L ¹⁾	Z2 CND 17-12
	Micro-flow valve (bar stock)	1.4435	316L	Z2 CND 17-12
Bonnet		1.4404/1.4409	316L	Z2 CND 17-12
Plug		1.4404 ¹⁾ · Stellite® facing	316L ¹⁾ · Stellite® facing	Z2 CND 17-12 · Stellite® facing

¹⁾ Other materials available on request

Table 2.2: Type 3379 Pneumatic Actuator

Component	Material
Housing and cover	Stainless steel 1.4409/A351 CF3M
Actuator stem	Stainless steel 1.4404/A182 F316L
Piston	Polyamide, glass fiber reinforced
	Stainless steel 1.4409/A351 CF3M ¹⁾
Bearing	Polymer
Spring	Spring steel
Seals	NBR

¹⁾ For actuator with 176 cm² effective area

- Type 3271 and Type 3277 Pneumatic Actuators ► T 8310-1
- Type 3372 Pneumatic Actuator ► T 8313

Table 3: K_{VS} coefficients and associated nominal sizes**Table 3.1:** Standard version

K _{VS}		0.4	0.63	1.0	1.6	2.5	4	6.3	10	16	25	40	60	80	100	160	200
C _V		0.5	0.75	1.2	2	3	5	7.5	12	20	30	47	70	95	120	190	240
Rangeability		50:1		50:1	50:1		25:1 ¹⁾ 50:1	50:1									
Seat Ø	mm	6		6	12		12 24 ¹⁾	24		31	38	48	63	80		100	110
Travel	mm	15													30		
DN	NPS																
15	½	•	•	•	•	•	•										
20	¾	•	•	•	•	•	•										
25	1	•	•	•	•	•	•	•	•								
32	1¼	•	•	•	•	•	•	•	•	•							
40	1½	•	•	•	•	•	•	•	•	•	•						
50	2				•	•	•	•	•	•	•	•					
65	2½								•	•	•	•	•				
80	3									•	•	•	•	•			
100	4												• ²⁾	• ²⁾	•	•	
125	5														•	•	•

¹⁾ SAMSON recommends using a V-port plug in nominal sizes DN 40 to 65 for pressures higher than 10 bar as well in nominal sizes DN 80 to 125 for pressures higher than 6 bar. A V-port plug is not required for nominal sizes smaller than DN 40.

For version with V-port plug:

Seat bore	Sb 3 to 6	Sb 12 to 31	Sb 38 to 63	Sb 80 to 110
Parabolic plug	Standard			
V-port plug	–	Optional		

²⁾ 30 mm travel

Table 3.2: Micro-flow valve

K _{VS}		0.01	0.016	0.025	0.04	0.063	0.1	0.16	0.25
C _V		0.012	0.02	0.03	0.05	0.075	0.12	0.21	0.3
Rangeability		15:1	20:1	25:1	35:1	45:1	50:1		
Seat Ø	mm	3							
Travel	mm	7.5							
DN	NPS								
6	–	•	•	•	•	•	•	•	•
8	¼	•	•	•	•	•	•	•	•
10	⅜	•	•	•	•	•	•	•	•
15	½	•	•	•	•	•	•	•	•
20	¾	•	•	•	•	•	•	•	•
25	1	•	•	•	•	•	•	•	•

Table 3.3: Actuator matrix

K_{VS}	0.01	0.016	0.025	0.04	0.063	0.1	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4	6.3	10	16	25	40	60	80	100	160	200
C_V	0.01	0.02	0.03	0.05	0.075	0.1	0.2	0.3	0.5	0.75	1.0	2	3	5	7.5	12	20	30	47	70	95	120	190	240
Actuator type																								
3379	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	• ¹⁾	• ¹⁾	–		
3271/ 3277	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3372	–								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

¹⁾ Only with clamp connection

Table 4: Permissible differential pressures Δp for Type 3347 Angle Valve with Type 3379 Pneumatic Actuator

The maximum permissible pressure and the permissible differential pressures Δp depend on which end connections are used (see Table 1.3).

Table 4.1: Metal seal for leakage class IV

Fail-safe position					Stem extends (FA)					
Operating range in bar (psi) with actuator					31 cm ² actuator area	2.3 to 3.7 (34 to 54)	–	–	–	–
					63 cm ² actuator area	–	2.5 to 4.0 (36 to 58)	3.3 to 5.6 (48 to 81)	–	–
					176 cm ² actuator area ¹⁾	–	–	–	1.0 to 2.3 (15 to 34)	1.4 to 3.0 (20 to 44)
Required supply pressure in bar (psi) to open the valve					4 (58)	4.5 (65)	6 (87)	4 (58)	4 (58)	4.5 (65)
DN	NPS	K _{VS}	Rated travel	Actuator area in cm ²	Δp when p ₂ = 0 in bar (psi)					
6 to 25	1/8 to 1	0.01 to 0.25	7.5	31	40 (580)	–	–	–	–	–
15 to 25	1/2 to 1	0.4 to 1.0	15	31	40 (580)	–	–	–	–	–
15 to 50	1/2 to 2	1.6 to 4.0	15	31	30 (435)	–	–	–	–	–
15 to 50	1/2 to 2	1.6 to 4.0	15	63	–	40 (580)	–	–	–	–
25 to 50	1 to 2	6.3 to 10	15	63	–	15 (218)	30 (435)	–	–	–
32 to 50	1 1/4 to 2	16	15	63	–	10 (145)	20 (290)	–	–	–
40 to 50	1 1/2 to 2	25	15	63	–	7 (102)	13 (189)	–	–	–
40 to 80	1 1/2 to 3	25	15	176 ¹⁾	–	–	–	9 (131)	13 (189)	21 (305)
50	2	40	15	63	–	–	8 (116)	–	–	–
50 to 80	2 to 3	40	15	176 ¹⁾	–	–	–	5 (73)	8 (116)	13 (189)
65 to 80	2 1/2 to 3	60	15	176 ¹⁾	–	–	–	3 (44)	4 (58)	7 (102)
80	3	80	15	176 ¹⁾	–	–	–	–	3 (44)	4 (58)

¹⁾ Only with clamp connection

Fail-safe position					Stem retracts (FE)									
Operating range in bar (psi) with actuator					31 cm ² actuator area	2.3 to 3.7 (34 to 54)	2.3 to 3.7 (34 to 54)	2.3 to 3.7 (34 to 54)	–	–	–	–	–	–
					63 cm ² actuator area	–	–	–	1.0 to 1.9 (15 to 28)	1.0 to 1.9 (15 to 28)	1.0 to 1.9 (15 to 28)	–	–	–
					176 cm ² actuator area ¹⁾	–	–	–	–	–	–	1.0 to 2.3 (15 to 34)	1.0 to 2.3 (15 to 34)	1.0 to 2.3 (15 to 34)
Required supply pressure in bar (psi) to close the valve					4 (58)	5 (73)	6 (87)	4 (58)	5 (73)	6 (87)	4 (58)	5 (73)	6 (87)	
DN	NPS	K _{Vs}	Rated travel	Actuator area in cm ²	Δp when p2 = 0 in bar (psi)									
6 to 25	⅛ to 1	0.01 to 0.25	7.5	31	17 (247)	40 (580)	–	–	–	–	–	–	–	–
15 to 25	½ to 1	0.4 to 1.0	15	31	–	11 (160)	23 (334)	–	–	–	–	–	–	–
15 to 50	½ to 2	1.6 to 4.0	15	31	–	11 (160)	22.5 (326)	–	–	–	–	–	–	–
15 to 50	½ to 2	1.6 to 4.0	15	63	–	–	–	40 (580)	–	–	–	–	–	–
25 to 50	1 to 2	6.3 to 10	15	63	–	–	–	17.5 (254)	28 (406)	33 (479)	–	–	–	–
32 to 50	1¼ to 2	16	15	63	–	–	–	10 (145)	16 (232)	22.5 (326)	–	–	–	–
40 to 50	1½ to 2	25	15	63	–	–	–	6 (87)	10 (145)	15 (218)	–	–	–	–
40 to 80	1½ to 3	25	15	176 ¹⁾		–	–	–	–	–	17.5 (254)	29 (421)	40 (580)	
50	2	40	15	63	–	–	–	3 (44)	6 (87)	9 (131)	–	–	–	–
50 to 80	2 to 3	40	15	176 ¹⁾		–	–	–	–	–	11 (160)	18 (261)	25 (363)	
65 to 80	2½ to 3	60	15	176 ¹⁾		–	–	–	–	–	6 (87)	10 (145)	14 (203)	
80	3	80	15	176 ¹⁾		–	–	–	–	–	3 (44)	6 (87)	9 (131)	

¹⁾ Only with clamp connection

Table 4.2: Soft seal with PEEK for leakage class VI

Fail-safe position					Stem extends (FA)						
Operating range in bar (psi) with actuator					31 cm ² actuator area	2.3 to 3.7 (34 to 54)	-	-	-	-	-
					63 cm ² actuator area	-	2.5 to 4.0 (36 to 58)	3.3 to 5.6 (48 to 81)	-	-	-
					176 cm ² actuator area ¹⁾	-	-	-	1.0 to 2.3 (13 to 32)	1.4 to 3.0 (22 to 39)	2.1 to 4.6 (32 to 58)
Required supply pressure in bar (psi) to open the valve					4 (58)	4.5 (65)	6 (87)	4 (58)	4 (58)	4.5 (65)	
DN	NPS	K _{VS}	Rated travel	Actuator area in cm ²	Δp when p2 = 0 in bar (psi)						
15 to 25	½ to 1	0.4 to 1.0	15	31	40 (580)	-	-	-	-	-	
15 to 50	½ to 2	1.6 to 4.0	15	31	23 (334)	-	-	-	-	-	
15 to 50	½ to 2	1.6 to 4.0	15	63	-	40 (580)	-	-	-	-	
25 to 50	1 to 2	6.3 to 10	15	63	-	18 (261)	32 (464)	-	-	-	
32 to 50	1¼ to 2	16	15	63	-	10 (145)	18 (261)	-	-	-	
40 to 50	1½ to 2	25	15	63	-	6 (87)	12 (174)	-	-	-	
40 to 80	1½ to 3	25	15	176 ¹⁾	-	-	-	7.5 (109)	12 (174)	20 (290)	
50	2	40	15	63	-	3 (44)	7 (102)	-	-	-	
50 to 80	2 to 3	40	15	176 ¹⁾	-	-	-	5 (73)	7 (102)	12 (174)	
65 to 80	2½ to 3	60	15	176 ¹⁾	-	-	-	-	3 (44)	7 (102)	
80	3	80	15	176 ¹⁾	-	-	-	-	-	3 (44)	

¹⁾ Only with clamp connection

Fail-safe position					Stem retracts (FE)								
Operating range in bar (psi) with actuator					31 cm ² actuator area	2.3 to 3.7 (34 to 54)	2.3 to 3.7 (34 to 54)	–	–	–	–	–	–
					63 cm ² actuator area	–	–	1.0 to 1.9 (15 to 28)	1.0 to 1.9 (15 to 28)	1.0 to 1.9 (15 to 28)	–	–	–
					176 cm ² actuator area ¹⁾	–	–	–	–	–	1.0 to 2.3 (13 to 32)	1.0 to 2.3 (13 to 32)	1.0 to 2.3 (13 to 32)
Required supply pressure in bar (psi) to close the valve					5 (73)	6 (87)	4 (58)	5 (73)	6 (87)	4 (58)	5 (73)	6 (87)	
DN	NPS	K _{VS}	Rated travel	Actuator area in cm ²	Δp when p2 = 0 in bar (psi)								
15 to 25	½ to 1	0.4 to 1.0	15	31	11 (160)	40 (580)	–	–	–	–	–	–	–
15 to 50	½ to 2	1.6 to 4.0	15	31	8 (116)	22.5 (326)	–	–	–	–	–	–	–
15 to 50	½ to 2	1.6 to 4.0	15	63	–	–	33 (479)	–	–	–	–	–	–
25 to 50	1 to 2	6.3 to 10	15	63	–	–	15 (218)	26 (377)	40 (580)	–	–	–	–
32 to 50	1¼ to 2	16	15	63	–	–	8 (116)	14 (203)	21 (305)	–	–	–	–
40 to 50	1½ to 2	25	15	63	–	–	5 (73)	9 (131)	13 (189)	–	–	–	–
40 to 80	1½ to 3	25	15	176 ¹⁾	–	–	–	–	–	16 (232)	27.5 (399)	40 (580)	–
50	2	40	15	63	–	–	–	5 (73)	8 (116)	–	–	–	–
50 to 80	2 to 3	40	15	176 ¹⁾	–	–	–	–	–	9 (131)	17 (247)	24 (348)	–
65 to 80	2½ to 3	60	15	176 ¹⁾	–	–	–	–	–	5 (73)	9 (131)	13 (189)	–
80	3	80	15	176 ¹⁾	–	–	–	–	–	–	5 (73)	8 (116)	–

¹⁾ Only with clamp connection

Table 5: Operating ranges and required supply pressures for Type 3347 Angle Valve with metal or soft-seated plug with Type 3271 or Type 3277 Pneumatic Actuator

Table 5.1: Fail-close valve · Valve closed with 0 bar signal pressure

The required supply pressure is 0.2 bar higher than the upper operating range value.

Nominal size		K _{vs}	Actuator area in cm ²	Operating range in bar at Δp (valve closed)		
DN	NPS			5 bar ¹⁾	10 bar	16 bar
15 20 25	½ ¾ 1	0.4/0.63/1.0	120	0.4 to 2.0	0.4 to 2.0	0.4 to 2.0
			175v2	0.2 to 1.0	0.2 to 1.0	0.2 to 1.0
		1.6/4	120	0.4 to 2.0	0.4 to 2.0	1.4 to 2.3
			175v2	0.4 to 1.2	0.4 to 1.2	0.4 to 1.2
25	1	6.3/10	120	1.4 to 2.3	1.4 to 2.3	1.4 to 2.3
			175v2	0.8 to 2.4	0.8 to 2.4	0.8 to 2.4
32 40	1¼ 1½	16	120	1.4 to 2.3	1.4 to 2.3	2.1 to 3.3
			175v2	0.8 to 2.4	0.8 to 2.4	1.3 to 2.9
40	1½	25	120	1.4 to 2.3	2.1 to 3.3	–
			175v2	0.8 to 2.4	1.3 to 2.9	1.7 to 3.3
			350v2	0.4 to 1.2	0.8 to 2.4	0.8 to 2.4
50	2	40	175v2	1.3 to 2.9	1.7 to 3.3	–
			350v2	0.8 to 2.4	0.8 to 2.4	1.4 to 2.3
65	2½	60	350v2	0.8 to 2.4	1.4 to 2.3	2.1 to 3.3
80	3	80	350v2	1.4 to 2.3	2.1 to 3.3	–
			355v2	1.6 to 2.4	2.35 to 2.95	2.95 to 3.65
100	4	100	750v2	0.8 to 2.4	1.4 to 2.4	1.4 to 2.4
		160		0.8 to 2.4	1.4 to 2.4	2.1 to 3.8
125	5	200	750v2	1.4 to 2.4	1.65 to 2.65	2.5 to 4.2

¹⁾ Select a smaller actuator for low signal pressures.

Table 5.2: Operating ranges and required supply pressure for micro-flow valve with "actuator stem extends" fail-safe position

Actuator area in cm ²	Travel in mm	Operating range in bar at Δp (valve closed)		
		5 bar	10 bar	16 bar
120	7.5	0.8 to 1.6	0.8 to 1.6	0.8 to 1.6

Table 5.3: Fail-open valve · Valve closed with the required supply pressure

Nominal size		K _{vs}	Actuator area in cm ²	Travel in mm	Operating range	Required supply pressure in bar at Δp		
DN	NPS					5 bar ¹⁾	10 bar	16 bar
6 8 10 15	⅛ ¼ ⅜ ½	0.01 to 0.25	120	7.5	0.8 to 1.6	1.2	1.2	1.2
15 20 25	½ ¾ 1	0.4/0.63/1.0	120	15	0.4 to 2.0	2.4	2.4	2.4
			175v2		0.2 to 1.0	1.2	1.2	1.2
		1.6/4	120	15	0.4 to 2.0	2.4	2.4	3.4
			175v2		0.2 to 1.0	1.4	1.4	1.4
25	1	6.3/10	120	15	0.4 to 2.0	3.4	3.4	3.4
			175v2		0.2 to 1.0	1.5	1.6	1.8
32 40	1¼ 1½	16	120	15	0.4 to 2.0	3.4	3.4	4.1
			175v2		0.2 to 1.0	1.6	1.8	2.1
40	1½	25	120	15	0.4 to 2.0	3.4	4.1	–
			175v2		0.2 to 1.0	1.8	2.1	2.5
			350v2		0.2 to 1.0	1.4	1.8	1.8
50	2	40	175v2	15	0.2 to 1.0	2.0	2.6	3.3
			350v2		0.2 to 1.0	1.8	1.8	2.4
65	2½	60	350v2	15	0.2 to 1.0	1.8	2.4	3.1

Nominal size		K _{VS}	Actuator area in cm ²	Travel in mm	Operating range	Required supply pressure in bar at Δp		
DN	NPS					5 bar ¹⁾	10 bar	16 bar
80	3	80	350v2	15	0.2 to 1.0	2.4	3.1	4.0
			355v2		0.6 to 1.0	2.1	2.9	3.8
100	4	100	355v2	15	0.2 to 1.0	2.1	2.9	3.8
		160			0.2 to 1.0	2.6	3.8	5.3
		100	750v2	30	0.2 to 1.0	1.6	1.9	2.4
		160			0.2 to 1.0	1.8	2.4	3.1
125	5	200	355v2	15	0.2 to 1.0	2.9	4.4	–
			750v2	30	0.2 to 1.0	1.9	2.6	3.5

¹⁾ Select a smaller actuator for low signal pressures.

Table 5.4: Required supply pressure for micro-flow valve with "actuator stem retracts" fail-safe position

Actuator area in cm ²	Travel in mm	Operating range	Required supply pressure in bar at Δp		
			5 bar	10 bar	16 bar
120	7.5	0.8 to 1.6	1.2	1.2	1.2

Table 6: Comparison table: operating ranges and bench ranges for "actuator stem extends" fail-safe position

Actuator type	Actuator area in cm ²	Travel in mm	Operating range in bar (bench range, if different)				
3271/3277	120	7.5	0.8 to 1.6	–	–	–	–
	120	15	0.4 to 2.0	1.4 to 2.3	2.1 to 3.3	–	–
	175v2	15	0.4 to 1.2 (0.2 to 1.0)	0.8 to 2.4 (0.4 to 2.0)	1.7 to 3.3 (1.3 to 2.9)	–	–
	350v2	15	0.4 to 1.2 (0.2 to 1.0)	0.8 to 2.4 (0.4 to 2.0)	1.4 to 2.3	1.6 to 2.4	2.1 to 3.3
	355v2	15	–	1.6 to 2.4 (0.4 to 2.0)	2.35 to 2.95 (1.4 to 2.6)	2.95 to 3.65 (1.9 to 3.3)	–
	750v2	30	–	0.8 to 2.4 (0.4 to 2.0)	–	1.65 to 2.65 (1.4 to 2.4)	2.5 to 4.2 (2.1 to 3.8)
3379	31	7.5	–	–	2.3 to 3.7 (34 to 54)	–	–
	31	15	–	–	2.3 to 3.7 (34 to 54)	–	–
	63	15	–	–	–	2.5 to 4.0 (36 to 58)	3.3 to 5.6 (48 to 81)
	176 ¹⁾	15	1.0 to 2.3 (15 to 34)	1.4 to 3.0 (20 to 44)	2.1 to 4.6 (30 to 67)	–	–

¹⁾ Only with clamp connection

Table 7: Dimensions and weights · Dimensions in mm and weights in kg**Table 7.1: Welding ends**

Valve	DN OD NPS	DN OD NPS	6	8	10	15	20	25	32	40	50	65	80	100	125	150
			10.2	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	168.3
			–	¼	⅜	½	¾	1	1¼	1½	2	2½	3	4	–	6
DIN 11866, Series A (DIN 11850 Series 2)	DN	L ¹⁾ (cast)	–	–	–	–	–	50 ²⁾	56	67	72	85	98	110	–	On request
		L ¹⁾ (bar stock)	–	–	–	70	70	70	70	70	85	105	105	130	130	
		L (bar stock, micro-flow valve)	50	50	50	50	–	–	–	–	–	–	–	–	–	
		Ød2	8	10	13	19	23	29	35	41	53	70	85	104	129	
		t	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2	2	2	2	
DIN 11866 Series B	OD	L ¹⁾ (cast)	–	–	–	–	–	55	66	70	82	105	110	110	–	On request
		L ¹⁾ (bar stock)	–	–	–	70	70	70	70	70	85	105	105	130	130	
		L (bar stock, micro-flow valve)	50	50	50	50	–	–	–	–	–	–	–	–	–	
		Ød2	10.2	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	
		t	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.6	
DIN 11866 Series C ASME BPE	NPS	L ¹⁾ (cast)	–	–	–	–	–	55	–	70	82	105	110	150	–	On request
		L ¹⁾ (bar stock)	–	–	–	70	70	70	–	70	85	105	105	130	130	
		L (bar stock, micro-flow valve)	40	–	50	50	–	–	–	–	–	–	–	–	–	
		Ød2	6.35	–	9.53	12.7	19.05	25.4	–	38.1	50.8	63.5	76.2	101.6	–	
		t	0.89	–	0.89	1.65	1.65	1.65	–	1.65	1.65	1.65	1.65	2.11	–	
ISO 2037	OD	L ¹⁾ (cast)	–	–	–	–	–	55	66	70	82	105	110	150	–	On request
		L ¹⁾ (bar stock)	–	–	–	–	–	70	70	70	85	105	105	130	130	
		L (bar stock, micro-flow valve)	–	–	50	50	–	–	–	–	–	–	–	–	–	
		Ød2	–	–	12	17.2	21.3	25	33.7	38	51	63.5	76.1	101.6	139.7	
		t	–	–	1	1	1	1.2	1.2	1.2	1.2	1.6	1.6	2	2	
JIS G 3447	NPS	L ¹⁾ (cast)	–	–	–	–	–	55	66	70	82	105	110	150	–	On request
		L ¹⁾ (bar stock)	–	–	–	–	–	70	70	70	85	105	105	130	–	
		L (bar stock, micro-flow valve)	–	–	–	–	–	–	–	–	–	–	–	–	–	
		Ød2	–	–	–	–	–	25.4	31.8	38.1	50.8	63.5	76.3	101.6	–	
		t	–	–	–	–	–	1.2	1.2	1.2	1.5	2	2	2	–	
JIS G 3459	NPS	L ¹⁾ (cast)	–	–	–	–	–	55	66	70	82	105	110	150	–	On request
		L ¹⁾ (bar stock)	–	–	–	70	70	70	70	70	85	105	105	130	130	
		L (bar stock, micro-flow valve)	50	50	50	50	–	–	–	–	–	–	–	–	–	
		Ød2	10.5	13.8	17.3	21.7	27.2	34	42.7	48.6	60.5	76.3	89.1	114.3	139.8	
		t	1	1.2	1.2	1.65	1.65	1.65	1.65	1.65	1.65	2.1	2.1	2.1	2.8	

¹⁾ Dimensions are not standardized²⁾ L according to DIN 11852

Table 7.2: Clamp connections

Face-to-face dimensions of special versions on request

Valve	DN OD NPS	DN OD NPS	6	8	10	15	20	25	32	40	50	65	80	100	125	150
			10.2	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	168.3
			–	¼	⅜	½	¾	1	1¼	1½	2	2½	3	4	–	6
DIN 11864-3 form A, Series A	DN	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	–	60.3	60.3	60.3	60.3	70	88.9	88.9	95.3	114.3	–	
		L3 (bar stock, micro-flow valve)	–	–	50	50	–	–	–	–	–	–	–	–	–	
		ØC3	–	–	34	34	50.5	50.5	50.5	64	77.5	91	106	130	–	
		Ød1	–	–	10	16	20	26	32	38	50	66	81	100	–	
DIN 11864-3 form A, Series B	OD	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	–	–	On request
		L3 (bar stock)	–	–	–	60.3	60.3	60.3	60.3	70	88.9	88.9	95.3	–	–	
		L3 (bar stock, micro-flow valve)	–	–	50	50	–	–	–	–	–	–	–	–	–	
		ØC3	–	–	34	34	50.5	50.5	64	64	91	106	119	–	–	
		Ød1	–	–	10.3	18.1	23.7	29.7	38.4	44.3	56.3	72.1	84.3	–	–	
DIN 11864-3 form A, Series C	NPS	L3 (cast)	–	–	–	–	–	60.3	–	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	–	60.3	60.3	60.3	–	70	88.9	88.9	95.3	114.3	–	
		L3 (bar stock, micro-flow valve)	–	–	–	50	–	–	–	–	–	–	–	–	–	
		ØC3	–	–	–	34	34	50.5	–	64	77.5	91	106	130	–	
		Ød1	–	–	–	9.4	15.75	22.1	–	34.8	47.5	60.2	72.9	97.38	–	
DIN 32676, Series A	DN	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	–	60.3	60.3	60.3	60.3	70	88.9	88.9	95.3	114.3	130	
		L3 (bar stock, micro-flow valve)	50	50	50	50	–	–	–	–	–	–	–	–	–	
		ØC3	25	25	34	34	34	50.5	50.5	50.5	64	91	106	119	155	
		Ød1	6	8	10	16	20	26	32	38	50	66	81	100	125	
DIN 32676 Series B	OD	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	60.3	60.3	60.3	60.3	60.3	70	88.9	88.9	95.3	114.3	130	
		L3 (bar stock, micro-flow valve)	50	50	50	50	–	–	–	–	–	–	–	–	–	
		ØC3	25	25	25	50.5	50.5	50.5	64	64	77.5	91	106	130	155	
		Ød1	7.0	10.3	14.0	18.1	23.7	29.7	38.4	44.3	56.3	72.1	84.3	109.7	134.5	
DIN 32676 Series C	NPS	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	–	60.3	60.3	60.3	–	70	88.9	88.9	95.3	114.3	–	
		L3 (bar stock, micro-flow valve)	35	–	50	50	–	–	–	–	–	–	–	–	–	
		ØC3	25	–	25	25	25	50.5	–	50.5	64	77.5	91	119	–	
		Ød1	4.57	–	7.75	9.4	15.75	22.1	–	34.8	47.5	60.2	72.9	97.38	–	
ISO 2852	DN	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	–	60.3	60.3	60.3	60.3	70	88.9	88.9	95.3	114.3	130	
		L3 (bar stock, micro-flow valve)	–	–	50	50	–	–	–	–	–	–	–	–	–	
		ØC3	–	–	34	34	34	50.5	50.5	50.5	64	77.5	91	119	155	
		Ød1	–	–	10	15.2	19.3	22.6	31.3	35.6	48.6	60.3	72.9	97.6	135.7	
ASME BPE	NPS	L3 (cast)	–	–	–	–	–	60.3	–	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	–	60.3	60.3	60.3	–	70	88.9	88.9	95.3	114.3	–	
		L3 (bar stock, micro-flow valve)	35	–	50	50	–	–	–	–	–	–	–	–	–	
		ØC3	25	–	25	25	25	50.5	–	50.5	64	77.5	91	119	–	
		Ød1	4.57	–	7.75	9.4	15.75	22.1	–	34.8	47.5	60.2	72.9	97.38	–	

Valve	DN OD NPS	DN OD NPS	6	8	10	15	20	25	32	40	50	65	80	100	125	150
			10.2	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	168.3
			–	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	–	6
BS 4825 Part 3	NPS	L3 (cast)	–	–	–	–	–	60.3	–	70	88.9	88.9	95.3	114.3	–	On request
		L3 (bar stock)	–	–	–	–	–	60.3	–	70	88.9	88.9	95.3	114.3	130	
		ØC3	–	–	–	–	–	50.5	–	50.5	64	77.5	91	119	155	
		Ød1	–	–	–	–	–	22.2	–	34.9	47.6	60.3	73	97.6	135.7	
OSS for pipes acc. to JIS G 3447	OD NPS	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	–	–	On request
		L3 (bar stock)	–	–	–	–	–	60.3	60.3	70	88.9	88.9	95.3	–	–	
		ØC3	–	–	–	–	–	50.5	50.5	50.5	64	77.5	91	119	–	
		Ød1 (OD)	–	–	–	–	–	30.7	39.4	45.3	57.2	72.1	84.9	110.1	–	
		Ød1 (NPS)	–	–	–	–	–	23	29.4	35.7	47.8	59.5	72.3	97.6	–	
OSS for pipes acc. to JIS G 3459	NPS	L3 (cast)	–	–	–	–	–	60.3	66	70	88.9	88.9	95.3	–	–	On request
		L3 (bar stock)	–	–	–	–	–	60.3	60.3	70	88.9	88.9	95.3	–	–	
		ØC3	–	–	–	–	–	50.5	50.5	50.5	64	77.5	91	119	–	
		Ød1	–	–	–	–	–	30.7	39.4	45.3	57.2	72.1	84.9	110.1	–	

Table 7.3: Threaded couplings

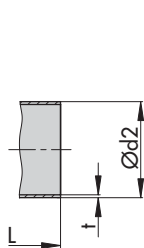
Face-to-face dimensions of special versions on request

Valve	DN OD NPS	DN OD NPS	6	8	10	15	20	25	32	40	50	65	80	100	125	150
			10.2	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	168.3
			–	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	–	6
DIN 11864-1 form A, Series A and DIN 11887 Series 1	DN	L1 (cast)	–	–	–	–	–	64	70	80	85	100	115	130	–	On request
		L1 (bar stock)	–	–	–	64	64	64	70	80	85	100	115	130	–	
		L1 (bar stock, micro-flow valve)	–	–	50	50	–	–	–	–	–	–	–	–	–	
		ØC1	–	–	RD 28x1/8	RD 34x1/8	RD 44x1/8	RD 52x1/8	RD 58x1/8	RD 65x1/8	RD 78x1/8	RD 95x1/8	RD 110x1/4	RD 130x1/4	–	
		Ød1	–	–	10	16	20	26	32	38	50	66	81	100	–	
DIN 11864-1 form A, Series B	OD	L1 (cast)	–	–	–	–	–	64	70	80	85	100	115	130	–	On request
		L1 (bar stock)	–	–	–	64	64	64	70	80	85	100	115	130	–	
		L1 (bar stock, micro-flow valve)	–	–	–	50	–	–	–	–	–	–	–	–	–	
		ØC2	–	–	–	RD 44x1/8	RD 52x1/8	RD 58x1/8	RD 65x1/8	RD 78x1/8	RD 95x1/8	RD 110x1/4	RD 130x1/4	–	–	
		Ød1	–	–	–	18.1	23.7	29.7	38.4	44.3	56.3	72.1	84.3	–	–	
DIN 11864-1 form A, Series C	NPS	L1 (cast)	–	–	–	–	–	64	–	80	85	100	115	130	–	On request
		L1 (bar stock)	–	–	–	–	–	64	–	80	85	100	115	130	–	
		ØC3	–	–	–	–	–	RD 52x1/8	–	RD 65x1/8	RD 78x1/8	RD 95x1/8	RD 110x1/4	RD 130x1/4	–	
		Ød1	–	–	–	–	–	22.1	–	34.8	47.5	60.2	72.9	97.38	–	
ISO 2853 (IDF)	DN	L1 (cast)	–	–	–	–	–	55	66	70	82	105	110	150	–	On request
		L1 (bar stock)	–	–	–	–	–	64	70	80	85	100	115	130	–	
		ØC2	–	–	–	–	–	37.1x1/8	45.9x1/8	50.6x1/8	64.1x1/8	77.6x1/8	91.1x1/8	–	–	
		Ød1	–	–	–	–	–	22.6	31.3	35.6	48.6	60.3	72.9	–	–	
SMS 1146	DN	L1 (cast)	–	–	–	–	–	55	66	70	82	105	110	150	–	On request
		L1 (bar stock)	–	–	–	–	–	55	66	70	82	105	110	150	–	
		ØC2	–	–	–	–	–	RD 40x1/8	RD 48x1/8	RD 60x1/8	RD 70x1/8	RD 85x1/8	RD 98x1/8	RD 125x1/4	–	
		Ød1	–	–	–	–	–	22.6	29.6	35.6	48.6	60.3	72.9	100	–	

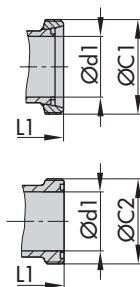
Table 7.4: Flanges

Face-to-face dimensions of special versions on request

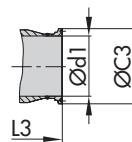
Valve	DN OD NPS	DN OD NPS	6	8	10	15	20	25	32	40	50	65	80	100	125	150
			10.2	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3	139.7	168.3
			–	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	–	6
DIN 11864-2 form A, Series A	DN	L4 (cast)	–	–	–	–	–	100	105	115	125	145	155	175	–	On request
		L4 (bar stock)	–	–	–	90	95	100	105	115	125	145	155	175	200	
		L4 (bar stock, micro-flow valve)	–	–	90	90	–	–	–	–	–	–	–	–	–	
		Ød1	–	–	10	16	20	26	32	38	50	66	81	100	125	
DIN 11864-2 form A, Series B	OD	L4 (cast)	–	–	–	–	–	100	105	115	125	145	155	175	–	On request
		L4 (bar stock)	–	–	–	90	95	100	115	115	125	145	155	175	–	
		L4 (bar stock, micro-flow valve)	–	90	90	90	–	–	–	–	–	–	–	–	–	
		Ød1	–	10.3	14.0	18.1	23.7	29.7	38.4	44.3	56.3	72.1	84.3	109.7	–	
DIN 11864-2 form A, Series C	NPS	L4 (cast)	–	–	–	–	–	100	–	115	125	145	155	175	–	On request
		L4 (bar stock)	–	–	–	90	95	100	–	115	125	145	155	175	–	
		L4 (bar stock, micro-flow valve)	–	–	–	90	–	–	–	–	–	–	–	–	–	
		Ød1	–	–	–	9.4	15.75	22.1	–	34.8	47.5	–	–	–	–	

Dimensional drawings of end connections

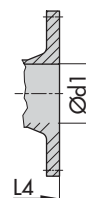
Welding end



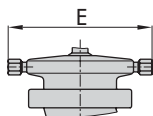
Threaded couplings according to DIN 11887 (11851) or IDF (top) and threaded couplings according to SMS standard (bottom)



Clamp connections according to ISO 2852



Flange connection according to DIN EN 1092-1



Steam barrier, G 1/4 connections

Table 8: Dimensions and weights for valves with Type 3271 and Type 3277 Pneumatic Actuators**Table 8.1:** Dimensions depending on the actuator size

Actuator area			cm ²	120	175v2	350v2	355v2	750v2
Diaphragm ØD			mm	168	215	280	280	394
H ¹⁾	Type 3271	mm		69	78	92	131	236
	Type 3277	mm		69	78	82	121	236
H3 ²⁾			mm	110	110	110	110	190
H5			Type 3277 mm	88	101	101	101	101
Thread	Type 3271	M30x1.5						
	Type 3277	M30x1.5						
a	Type 3271	G ½ (½ NPT)		G ¼ (¼ NPT)		G ⅜ (⅜ NPT)		G ⅜ (⅜ NPT)
a2	Type 3277	–		G ⅜		G ⅜		G ⅜

¹⁾ Height with welded-on lifting eyelet or height of eyebolt according to DIN 580. Height of the swivel hoist may differ. Actuators up to 355v2 cm² without lifting eyelet

²⁾ Minimum clearance required to remove the actuator

Table 8.2: Weights of Type 3271 and Type 3277 Pneumatic Actuators · With and without handwheel

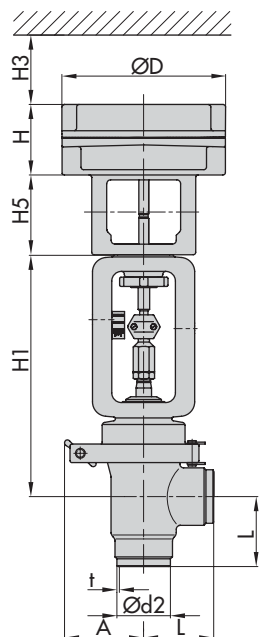
Actuator area			cm ²	120	175v2	350v2	355v2	750v2
Weight ¹⁾	Type 3271	Without hand-wheel	kg (approx.)	2.5	6	11.5	15	36
		With handwheel	kg (approx.)	4	10	16.5	20	41
	Type 3277	Without hand-wheel	kg (approx.)	3.2	10	15	19	40
		With handwheel	kg (approx.)	4.5	14	20	24	45

¹⁾ The weights specified apply to a specific standard device configuration. Weights of other actuator configurations may differ depending on the version (material, number of actuator springs etc.).

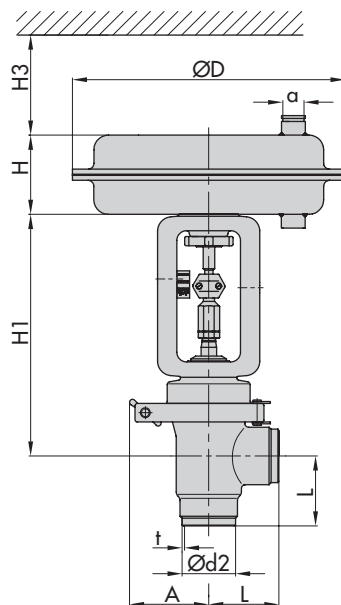
Table 8.3: General dimensions and weights

Valve	DN	6	8	10	15	20	25	32	40	50	65	80	100	125
	NPS	–	¼	⅜	½	¾	1	1¼	1½	2	2½	3	4	5
Common dimensions														
A	Cast	–	–	–	–	–	70	80	80	90	100	110	130	–
	Bar stock	–	–	–	80	80	80	80	80	90	110	110	130	130
Height H1		–	–	–	234	231	227	229	234	240	266	274	306	314
E (steam barrier)	Cast	–	–	–	–	–	162	164	164	164	192	203	178	–
	Bar stock	–	–	–	164	164	164	164	164	164	187	187	212	212
Valve weight in kg (approx.)														
With welding ends, threaded couplings, clamp connections for	Cast	–	–	–	–	–	5	5.5	6	7	11	14	19	–
	Bar stock	–	–	–	7	7	7	7.5	8	10	19	19	27	33
With flanges for body version	Cast	–	–	–	–	–	7.5	9	10	12	17	21	29	–
	Bar stock	–	–	–	8.5	9	9.5	11	12	15	25	27	37	46

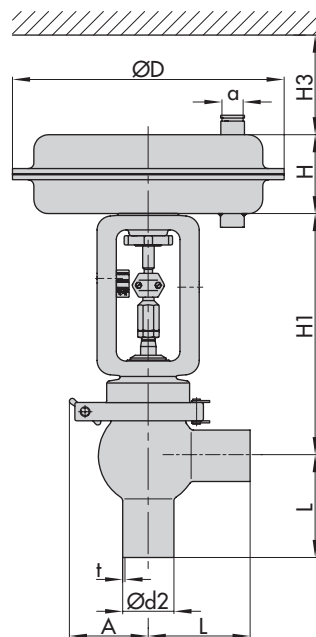
Dimensional drawings of Type 3347 Valve with Type 3271 and Type 3277 Pneumatic Actuators



Type 3347-7 Control Valve with welding ends



Type 3347-1 Control Valve with welding ends



Type 3347-1 Control Valve with welding ends

Table 9: Dimensions and weights of valves with Type 3379 Pneumatic Piston Actuator (including Type 3724 Positioner)**Table 9.1:** Dimensions and weights depending on the actuator size

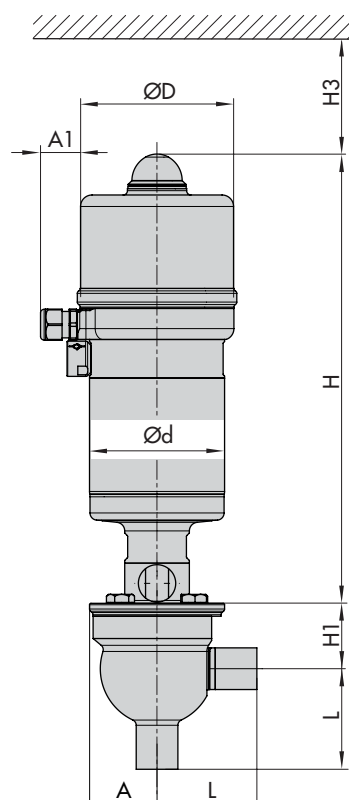
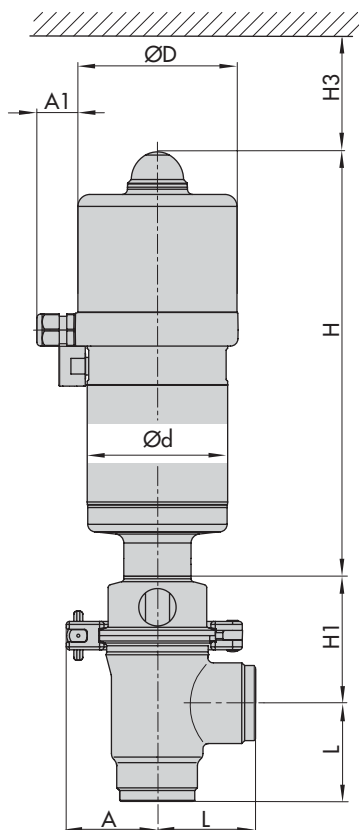
Piston diameter	mm	63	90	150
Effective area	cm ²	31	63	176
Height H	mm	285	285	310
Height H3 ¹⁾	mm	150	150	150
Length A1	mm	30	30	30
Diameter ØD	mm	108	108	108
Diameter Ød	mm	69	94	160
Weight	(approx. kg)	3.7	4.9	10.7

¹⁾ Minimum clearance required to remove the actuator

Table 9.2: General dimensions and weights

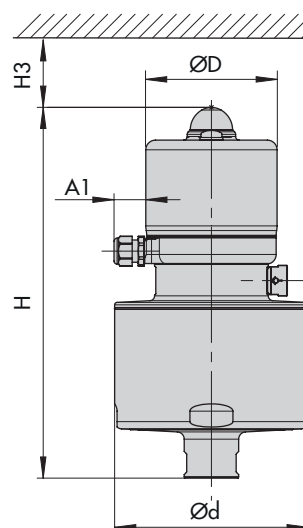
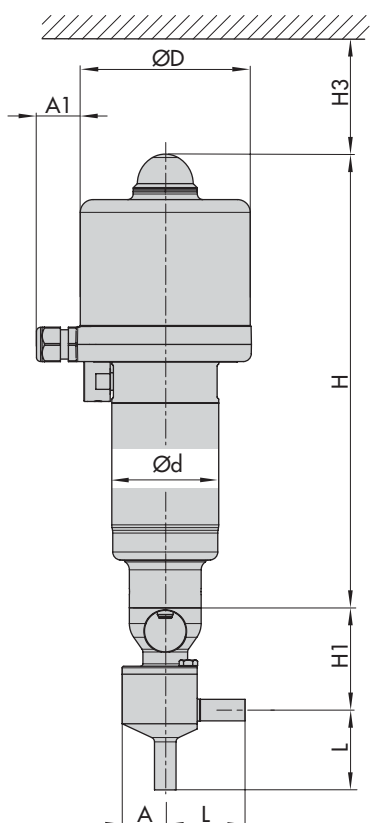
		DN	6	8	10	15	20	25	32	40	50	65	80	
Valve			OD	10.2	13.5	17.2	21.3	26.9	33.7	42.4	48.3	60.3	73	88.9
			NPS	–	¼	⅜	½	¾	1	1¼	1½	2	2½	3
A	Cast	Clamped	–					70	80	80	90	100	110	
	Bar stock	Clamped	–			80	80	80	80	80	90	110	110	
	Bar stock	Bolted	–			47	47	47	47	47	54	–		
	Bar stock (micro-flow valve)	Bolted	27				–							
Height H1	Cast	Clamped	–					72	69	79	87	124	132	
	Bar stock	Clamped	–			81	78	73	75	80	87	124	132	
		Bolted				81	78	73	75	80	88	–		
	Bar stock (micro-flow valve)	Bolted	66	66	64	61	–							
E (steam barrier)	Cast	–						162	164	164	164	–		
	Bar stock	–				164	164	164	164	164	164	–		
Valve weight · Body with welding ends														
Weight	Cast	Clamped	–					1.5	2	2.5	4	7.5	10.5	
	Bar stock	Clamped or bolted	–			3	3	3	3	3	4	13	13	
	Bar stock (micro-flow valve)	Bolted	0.9	0.9	0.9	0.9	–							

Dimensional drawings of Type 3347 Valve with Type 3379 Pneumatic Piston Actuator (including Type 3724 Positioner)



Type 3347/3379/3724 Control Valve with welding ends and bonnet with clamp connections · Version with cast body

Type 3347/3379/3724 Control Valve with welding ends and bolted bonnet · Bar stock version



Type 3347/3379/3724 Control Valve with welding ends · Micro-flow valve version

Type 3379 Actuator with Type 3724 Positioner

Ordering text

Pneumatic control valve	DN .../NPS .../OD ...	Actuator	Type 3271/3277 (► T 8310-1), Type 3372 (► T 8313) or Type 3379
Materials according to	DIN/ANSI/AFNOR		
End connections according to Table 1.3	Welding ends Threaded couplings Clamp connections Flanges	Actuator area/effective area	... cm ²
Flow coefficients	K_{VS} .../ C_V ...	Bench range	... bar
Characteristic	Equal percentage/linear	Fail-safe position	Fail-close or fail-open
Seat-plug seal	Metal or soft seal	Additional equipment	Type 3724 Positioner (► T 8395) Positioner and/or limit switch (► T 8350)
Steam barrier	With/without		
Body surface finish	Polished outsides and/or insides R_a according to Table 1.1		

