DATA SHEET

T 8097-1 EN

Type 3347/3372 Hygienic Control Valve

Application

Control valve for hygienic applications in the food and beverage industry

Nominal size	**DN 15 to 100**	**NPS ½ to 4**
Maximum pressure	**16 bar**	**232 psi**
Temperatures	**0 to 150 °C**	**32 to 300 °F**

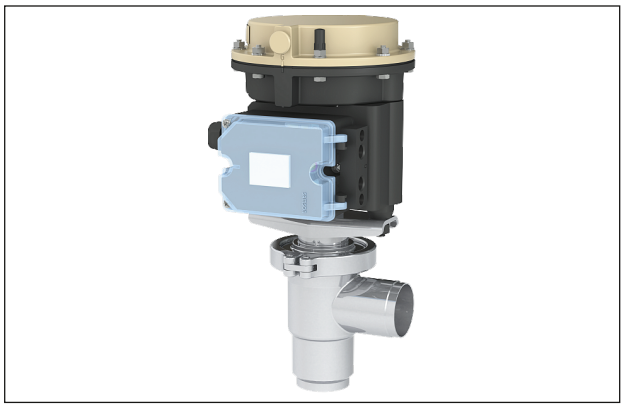

Fig. 1: *Type 3347 Valve with Type 3372 Pneumatic Actuator with 120 cm² and Type 3725 Positioner*

Fig. 2: *Type 3347 Valve with Type 3372 Pneumatic Actuator with 350 cm² and Type 3725 Positioner*

Type 3347 Angle Valve with Type 3372 Pneumatic Actuator

Special features

- Valve body free of dead cavities made of cast stainless steel
- Wetted sealing materials comply with FDA regulations
- Easily detachable clamp connection between body and bonnet
- Suitable for cleaning-in-place (CIP)
- PTFE seals are used between the body and bonnet as well as between bonnet and plug stem.

The control valves used in combination with the Type 3725 Electropneumatic Positioner form a compact automated unit.

Versions

– Stainless steel body with **welding ends** for pipes according to DIN EN 10357, Series A (DIN 11866, Series A), ISO 2037, SMS 3008 or NF A49-249
– **Type 3372 Actuator** · See Data Sheet ▶ T 8313 with **Type 3725 Positioner** · See Data Sheet ▶ T 8394

Further versions

– **Polished valve body** (internal and/or external surfaces)

Mounting and handling

The valve is welded into the pipeline in the upright position with the actuator on top. The process medium flows through the valve in the direction indicated by the arrow in the flow-to-open direction.

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Edition January 2026

The clamp connection allows the entire valve bonnet to be easily detached from the body.

Fail-safe positions

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:**
  The valve is closed upon air supply failure.
– **Actuator stem retracts:**
  The valve is opened upon air supply failure.

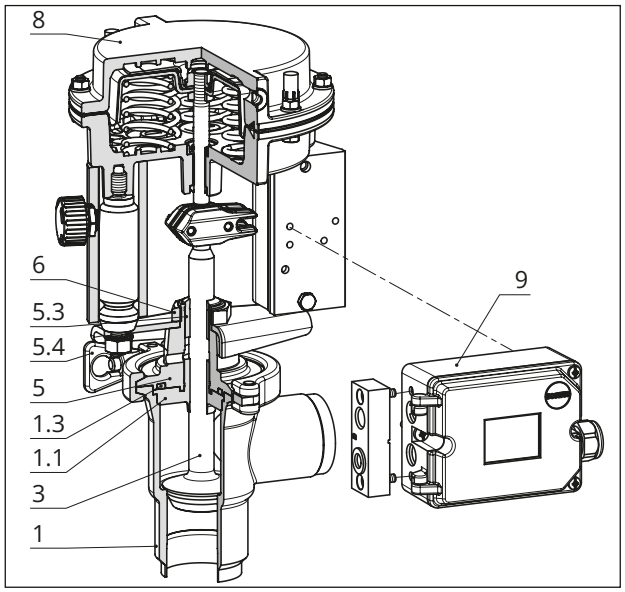

Fig. 3: *Type 3347 Valve with Type 3372 Pneumatic Actuator with 120 cm² and Type 3725 Positioner*

1	Valve body	5.3	Plug stem guide/ guide bushing
1.1	Body gasket	5.4	Clamp
1.3	Compensating ring	6	Nut
3	Plug	8	Actuator
5	Valve bonnet with yoke	9	Positioner

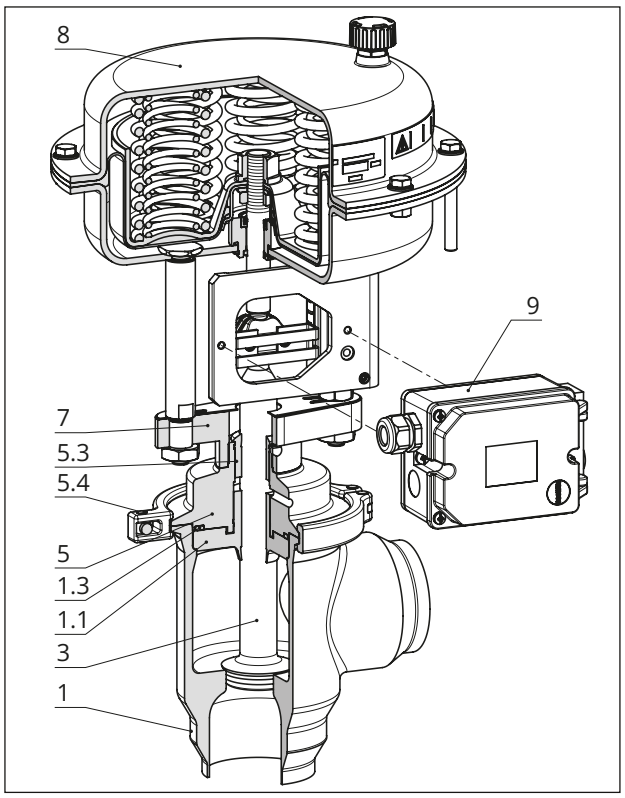

Fig. 4: *Type 3347 Valve with Type 3372 Pneumatic Actuator with 350 cm² and Type 3725 Positioner*

1	Valve body	5.4	Clamp
1.1	Body gasket	6	Nut
1.3	Compensating ring	7	Connecting flange
3	Plug	8	Actuator
5	Valve bonnet with yoke	9	Positioner
5.3	Plug stem guide/ guide bushing		

Table 1: *Technical data for Type 3347*

Connection	**Welding ends acc. to standard**	**DIN EN 10357, Series A/D DIN 11866, Series A**	**ISO 2037**
Nominal size	DIN	DN 15 to 100	
	ANSI	NPS ½ to 4	
Permissible medium temperature (see “Max. operating pressure” for restrictions)		0 to 150 °C (32 to 300 °F)	
Max. operating pressure at a medium temperature of	0 to 20 °C (32 to 68 °F)	16 bar (232 psi)	
	>20 to 150 °C (>68 to 300 °F)	14 bar (200 psi)	
Seat-plug seal		Metal seal	
Characteristic		Equal percentage or linear	
Rangeability		See Table 3	
Leakage class according to DIN EN 60534-4		IV	
Materials	Cast body[1)] with lathed seat	1.4409 (A351 CF3M)	
	Valve bonnet	1.4404 (316L)	
	Plug	1.4404 (316L)	
	Clamp	1.4306 (304L)	
	Body and stem seal	Pure PTFE	
	Guide bushing	Pure PTFE	
Surface quality R_a	Internal	0.8 µm	
	External	1.6 µm	
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		CE	

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

Table 2: *Technical data for Type 3372 Electropneumatic Actuator with Type 3725 Positioner (direct attachment)*

Actuator area		**120 cm²**	**350 cm²**	
Rated travel		15 mm	15 mm	30 mm
Electric properties		See Data Sheet for Type 3725 Electropneumatic Positioner ▶ T 8394		
Pneumatic data		See Data Sheet for Type 3372 Electropneumatic Actuator ▶ T 8313		
Materials	Actuator housing	Aluminum, powder coating		
	Diaphragm	NBR	NBR	
	Actuator stem	1.4305	1.4401/1.4404	

Flow coefficients and associated nominal sizes

Table 3: *K_{VS} and C_V coefficients*

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

[1] For version with V-port plug, see Data Sheet ▶ T 8097 (K_{VS} coefficients of standard version)

Permissible differential pressures for Type 3347 Valve with Type 3372 Electropneumatic Actuator · Metal-seated plug

Table 4: *Fail-safe action: Stem extends (FA)*

Actuator area	Bench range	Travel	Supply pressure	Nominal valve size		K_{VS} coefficient	Differential pressure Δp at p_2 = 0 bar
cm²	bar	mm	bar	DN	NPS		bar
120	2.1 to 3.3	15	3.7 to 6.0	15 to 50	½ to 2	0.4 · 0.63 · 1.0 · 1.6 · 2.5 · 4 · 6.3 · 10 · 16	16
						25	15
						40	9
						60[1]	4
350	2.1 to 2.7	15	4.3 to 6.0	65 to 100	2½ to 4	60	16
						80	10
	2.2 to 3.8	30	4.3 to 6.0			60	16
						80	11
						100	11
						160	6

[1] Mounting type of actuator: mounting using rods (form C) ▶ EB 8313-3

Table 5: *Fail-safe action: Stem retracts (FE)*

Actuator area	Bench range	Travel	Supply pressure	Nominal valve size		K_{VS} coefficient	Differential pressure Δp at p_2 = 0 bar
cm²	bar	mm	bar	DN	NPS		bar
120	0.4 to 1.4	15	2.5	15 to 50	½ to 2	0.4 · 0.63 · 1.0 · 1.6 · 2.5 · 4 · 6.3 · 10 · 16	10
						25	6
						40	3
			3.5			0.4 · 0.63 · 1.0 · 1.6 · 2.5 · 4 · 6.3 · 10 · 16	16
						25	15
						40	9
						60[1)]	4
			4.4			0.4 · 0.63 · 1.0 · 1.6 · 2.5 · 4 · 6.3 · 10 · 16	16
						25	16
						40	13
						60[1)]	7
						80[1)]	4
350	1.5 to 2.1	15	4.0	65 to 100	2½ to 4	60	15
						80	9
			6.0			60	16
						80	16
	1.5 to 2.7	30	4.0			60	10
						80	6
						100	6
						160	3
			6.0			60	16
						80	16
						100	16
						160	10

[1)] Mounting type of actuator: mounting using rods (form C) ▶ EB 8313-3

Dimensions and weights for valves with Type 3372 Electropneumatic Actuator

Table 6: *Type 3347 Control Valve · Dimensions in mm*

Valve		DN	15	20	25	32	40	50	65	80	100
		NPS	½	¾	1	1¼	1½	2	2½	3	4
Dimension	H1	mm	73.5	73.5	67	67	76	81	116	124	145
	A	mm	70	70	70	80	80	90	105	110	150
With welding ends for pipes according to ...											
DIN 11866, Series A	L	mm	50	50	50	56	67	72	85	98	110
	Ød2	mm	19	23	29	35	41	53	70	85	104
	t	mm	1.5	1.5	1.5	1.5	1.5	1.5	2	2	2
ISO 2037	L	mm	55	55	55	66	70	82	105	110	150
	Ød2	mm	17.2	21.3	25	33.7	38	51	63.5	76.1	101.6
	t	mm	1	1	1.2	1.2	1.2	1.2	1.6	1.6	2
With actuator			**120 cm² actuator area**						**350 cm² actuator area**		
Dimension	H	mm	182						251		
	H3	mm	110						110		
	ØD	mm	168						280		
	E	mm	107.5						107.5		
Weight	Valve + actuator	kg (approx.)	6.2	6.1	5.9	6.5	7.1	6.9	22.2	23.8	29.8

Dimensional drawings

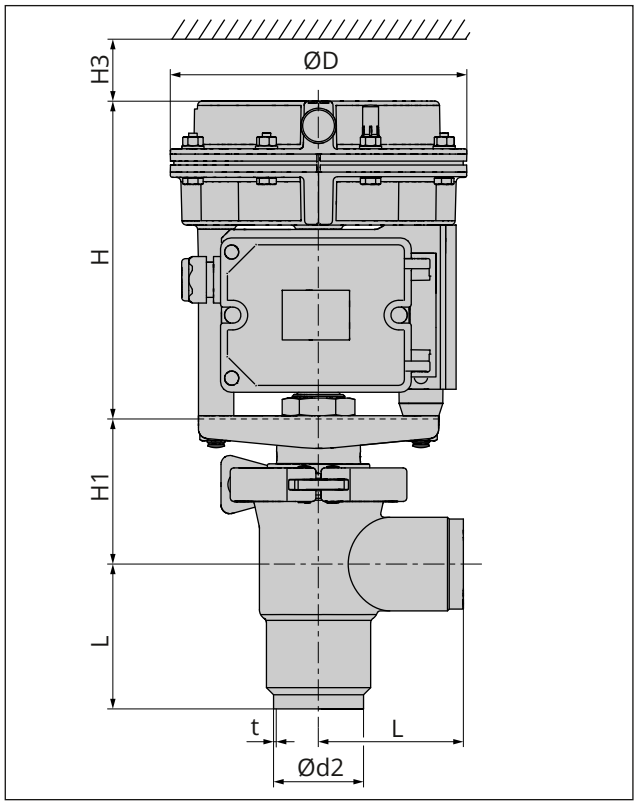

Fig. 5: *Front view of Type 3347 Angle Valve with Type 3372 Pneumatic Actuator (120 cm²) and Type 3725 Positioner*

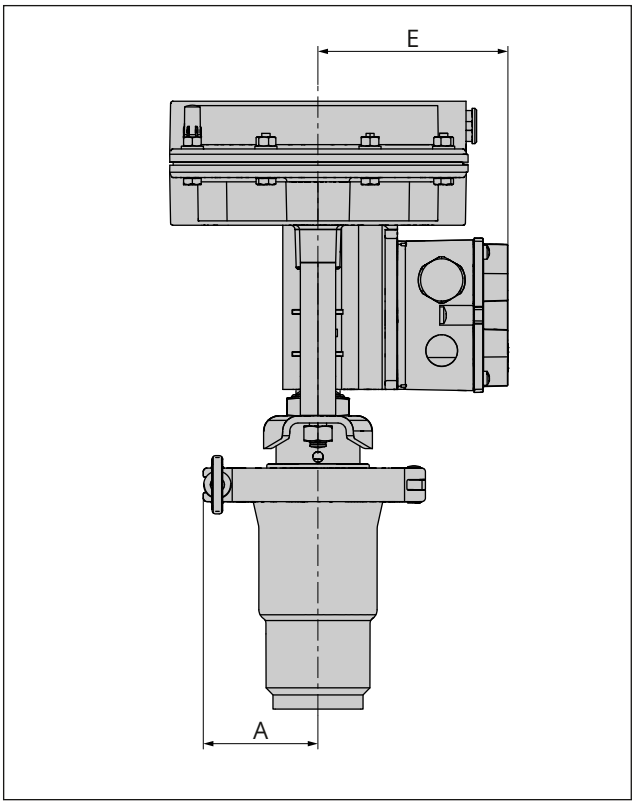

Fig. 6: *Side view of Type 3347 Angle Valve with Type 3372 Pneumatic Actuator (120 cm²) and Type 3725 Positioner*

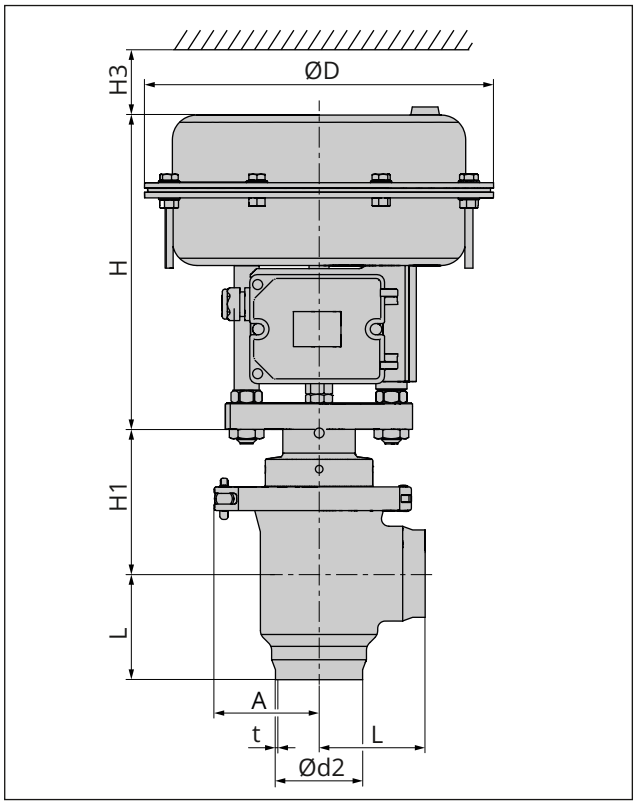

Fig. 7: *Front view of Type 3347 Angle Valve with Type 3372 Pneumatic Actuator (350 cm²) and Type 3725 Positioner*

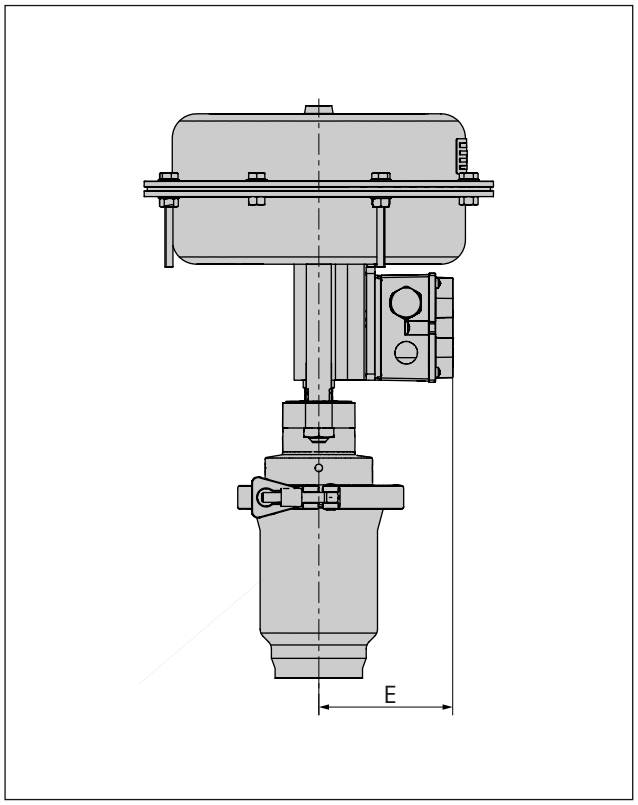

Fig. 8: *Side view of Type 3347 Angle Valve with Type 3372 Pneumatic Actuator (350 cm²) and Type 3725 Positioner*

Ordering text

The following specifications are required on ordering:

Nominal size	DN .../NPS ...
End connections acc. to Table 1	Welding ends according to standard ...
Flow coefficients	K_{VS} .../C_V ...
Body surface finish	Polished outsides and/or insides R_a according to Table 1
Actuator	Type 3372 (see Data Sheet ▶ T 8313)
Actuator area	... cm^2
Bench range	... bar
Fail-safe position	Fail-close or fail-open
Additional equipment	Type 3725 Positioner (Data Sheet ▶ T 8394)