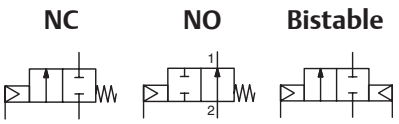
ASCO™ Pneumatic Angle and Straight Seat Valves

2-way, Pressure Operated, Stainless Steel Body and Plastic Actuator
3/8" to 2 1/2" Tapped or with Flanges PN40 (DN15 to DN25) and PN25 (DN32 to DN65)

2/2
Series
290

Features and Benefits

- *Suitable for a broad range of industrial machines and manufacturing process High reliability, long service life and exceptional and repeatable tight shutoff*
- *Adjustable actuator enables 360° access to pilot port*
- *Modular design provides exceptional flexibility*
- *Large piloting orifice and low hysteresis creates fast cycle times*
- *Anti-water hammer design and back pressure resistant*
- *Extensive range of actuators, options, certifications and accessories*
- *High performance, maintenance-free actuator and stuffing box*
- *Easy and fast maintenance without the need to remove valve body from pipework*





General

Differential pressure	See Specifications section [1 bar =100 kPa]
Vacuum	10^{-2} mbar (10^{-2} Torr/mm Hg)
Maximum allowable pressure	16 bar (240 psi) 25 bar (360 psi) for «P16» option (PS > 16 bar (240 psi))
Ambient temperature range	-10°C to +60°C (14°F to 140°F)
Maximum viscosity	800 cSt (mm^2/s) (2.700 SSU)
Pilot fluid	Filtered air or water
Maximum pilot pressure	10 bar (150 psi) / bistable function: 8 bar (120 psi)
Minimum pilot pressure	See Specifications section
Response time	See dedicated pilot catalog pages

Fluids (✶)	Temperature range (TS) (1)	Disc seal (✶)
Up to DN 50: air and gas groups 1 and 2 DN 65: air and gas group 2 All DN: liquids and steam groups 1 and 2	-10°C to +184°C (14°F to 360°F) steam ≤ 184°C/360°F	PTFE

Materials of components in contact with fluid

(✶) Ensure that compatibility of materials in contact with fluids is verified.

	Stainless steel	All 316L grade version with body passivation
Body	Stainless steel AISI 316L	Stainless steel AISI 316L
Stuffing box housing	Stainless steel AISI 316L	Stainless steel AISI 316L
Stem	Stainless steel AISI 431	Stainless steel AISI 316L
Disc	Stainless steel AISI 316L	Stainless steel AISI 316L
Disc seal	PTFE	PTFE
Wiper seal	FPM	FPM
Stuffing box packing	PTFE	PTFE
Valve body seal	PTFE	PTFE

Angle seat valve

Thread connection	3/8" to 2 1/2" (DN10 to DN65)
Pilot port insert	Brass or stainless steel AISI 316L

Straight seat valve

Connection	Flanges PN40 (DN15 to DN25), PN25 (DN32 to DN65) type 11 (ISO 7005 / EN 1092-1) ANSI Class 150 ASME B16.5
Face-to-face dimensions	EN 558-1
Face de joint	Type B
Pilot port insert	Brass or stainless steel AISI 316L

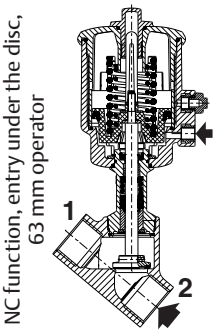
Other components

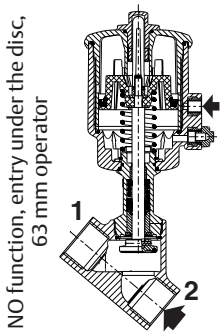
Actuator	Glass fiber filled PA
Optical position indicator	PA 12

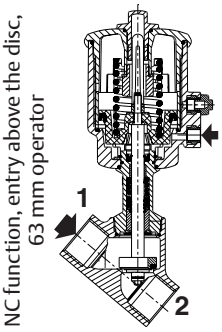
Certifications and Approvals

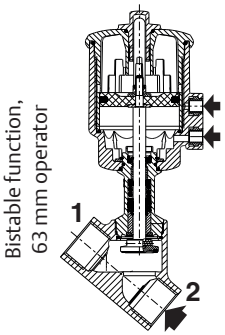
- Pressure Equipment Directive 2014/68/EU, Category 1 (DN > 25) or article 4.3 (DN ≤ 25)
- Functional Safety of Machinery: EN ISO 13849-1
- Reach compliant
- IEC 61508 Standard (2010 route 2_H version) certified with integrity levels: SIL 2 for HFT = 0
- The valves satisfy all relevant EU and EAC directives
- RoHS compatible

(1) The minimum ambient temperature of the valve is determined by the limitations of minimum temperature indicated.









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Options [1]

- Oxygen service pressure limited to 15 bar (220 psi), media temperature limited to +60°C (140°F)
- Explosive atmospheres, ATEX and IECEx compliant
- Medium vacuum service up to 10^{-3} mb (10^{-3} Torr)
- Visual position indicator for 32 mm and 50 mm actuators (standard position indicators for other actuator sizes)
- EN 161/EN 16678 compliant versions (see dedicated catalog pages)
- Pilots (see dedicated catalog pages)
- Large range of switch boxes and digital positioners (see dedicated catalog pages)
- Valve body material composition certificate 3.1

[1] See Choice of options and accessories (page 14)

Specifications (angle seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type [1]	Catalog number	
Pipe size	DN					Air, inert gas (∗)	Water, oil, liquids (∗)	Steam (∗)			Thread type	
		m³/h (gal/min)	(l/min)	Min.	Max.				(mm)		(G*)	(NPTF)
NC - Normally closed, entry under the disc												
3/8”	10	2.8 (3.2)	46	4.7 (75)	10 (150)	16 (240)	16 (240)	10 (150)	32	01	**E290D0110SA0000**	**8290D0120SA0000**
1/2”	15	4.1 (4.7)	68	4.7 (75)	10 (150)	10 (150)	10 (150)	10 (150)	32	01	**E290D0210SA0000**	**8290D0220SA0000**
		5.8 (6.7)	96	4.5 (70)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	**E290D0230SA0000**	**8290D0240SA0000**
				5.5 (80)		25 (360)	25 (360)	10 (150)	50	02	**E290D0230SP1600**	**8290D0240SP1600**
				2.8 (45)	10 (150)	16 (240)	16 (240)	10 (150)	63	03	**E290D0250SA0000**	**8290D0260SA0000**
				4.5 (70)		25 (360)	25 (360)	10 (150)	63	03	**E290D0250SP1600**	**8290D0260SP1600**
3/4”	20	6.5 (7.5)	108	4.7 (75)	10 (150)	6 (90)	6 (90)	6 (90)	32	01	**E290D0310SA0000**	**8290D0320SA0000**
		10.7 (12.4)	178	4.5 (70)	10 (150)	10 (150)	10 (150)	10 (150)	50	02	**E290D0330SA0000**	**8290D0340SA0000**
				5.5 (80)		14 (210)	14 (210)	10 (150)	50	02	**E290D0330SP1600**	**8290D0340SP1600**
				4.5 (70)	10 (150)	16 (240)	16 (240)	10 (150)	63	03	**E290D0350SA0000**	**8290D0360SA0000**
				2.8 (45)		12 (180)	12 (180)	10 (150)	63	03	**E290D7350SA0000**	**8290D7360SA0000**
				4.5 (70)		20 (300)	20 (300)	10 (150)	63	03	**E290D0350SP1600**	**8290D0360SP1600**
1”	25	15.5 (18)	258	4.5 (70)	10 (150)	6 (90)	6 (90)	6 (90)	50	01	**E290D0430SA0000**	**8290D0440SA0000**
				5.5 (80)		9 (135)	9 (135)	9 (135)	50	01	**E290D0430SP1600**	**8290D0440SP1600**
		17.7 (20.5)	295	4.5 (70)	10 (150)	10 (150)	10 (150)	10 (150)	63	03	**E290D0450SA0000**	**8290D0460SA0000**
		17.8 (20.6)	296	4.5 (70)	10 (150)	16 (240)	16 (240)	10 (150)	90	04	**E290D04B0SA0000**	**8290D04C0SA0000**
		17.7 (20.5)	295	2.8 (45)	10 (150)	6 (90)	6 (90)	6 (90)	63	03	**E290D7450SA0000**	**8290D7460SA0000**
		17.8 (20.6)	296	2.8 (45)	10 (150)	12 (180)	12 (180)	10 (150)	90	04	**E290D74B0SA0000**	**8290D74C0SA0000**
				4.5 (70)		25 (360)	25 (360)	10 (150)	90	04	**E290D04B0SP1600**	**8290D04C0SP1600**

(∗) Ensure that compatibility of materials in contact with fluids is verified.
[1] For dimensions, see drawing(s) for each construction type on the following page(s).

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ASCO™ Pneumatic Angle and Straight Seat Valves

Specifications (angle seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type (1)	Catalog number	
Pipe size	DN					Air, inert gas (✶)	Water, oil, liquids (✶)	Steam (✶)			Thread type	
		m^3/h (gal/min)	(l/min)	Min.	Max.				(mm)		(G*)	(NPTF)
1 1/4”	32	25.2 (29.2)	420	4.5 (70)	10 (150)	6 (90)	6 (90)	6 (90)	63	03	E290D0550SA0000	8290D0560SA0000
		26.2 (30.4)	436	4.5 (70)		12 (180)	12 (180)	10 (150)	90	04	E290D05B0SA0000	8290D05C0SA0000
		25.2 (29.2)	420	2.8 (45)		3 (45)	3 (45)	3 (45)	63	03	E290D7550SA0000	8290D7560SA0000
		26.2 (30.4)	436	2.8 (45)		7 (105)	7 (105)	7 (105)	90	04	E290D75B0SA0000	8290D75C0SA0000
		30.5 (35.3)	508	4 (60)		16 (240)	16 (240)	10 (150)	125	05	E290D05H0SA0000	8290D05J0SA0000
1 1/2”	40	38.3 (44.4)	638	4.5 (70)	10 (150)	4 (60)	4 (60)	4 (60)	63	03	E290D0650SA0000	8290D0660SA0000
		40.4 (46.9)	673	4.5 (70)		8 (120)	8 (120)	8 (120)	90	04	E290D06B0SA0000	8290D06C0SA0000
		46.1 (53.5)	768	4 (60)		16 (240)	16 (240)	10 (150)	125	05	E290D06H0SA0000	8290D06J0SA0000
		40.4 (46.9)	673	2.8 (45)		4 (60)	4 (60)	4 (60)	90	04	E290D76B0SA0000	8290D76C0SA0000
		46.1 (53.5)	768	2.5 (40)		10 (150)	10 (150)	10 (150)	125	05	E290D76H0SA0000	8290D76J0SA0000
2”	50	51.4 (59.7)	857	4.5 (70)	10 (150)	2.5 (40)	2.5 (40)	2.5 (40)	63	03	E290D0750SA0000	8290D0760SA0000
		54.9 (63.7)	915	4.5 (70)		6 (90)	6 (90)	6 (90)	90	04	E290D07B0SA0000	8290D07C0SA0000
		67.7 (78.5)	1128	4 (60)		10 (150)	10 (150)	10 (150)	125	05	E290D07H0SA0000	8290D07J0SA0000
				2.5 (40)		5 (75)	5 (75)	5 (75)	125	05	E290D77H0SA0000	8290D77J0SA0000
2 1/2”	65	94 (109)	1566	4.5 (70)	10 (150)	2 (30)	2 (30)	2 (30)	90	04	E290D08B0SA0000	8290D08C0SA0000
		111 (128.8)	1850	4 (60)		6 (90)	6 (90)	6 (90)	125	05	E290D08H0SA0000	8290D08J0SA0000
NO - Normally open, entry under the disc												
3/8”	10	2.8 (3.2)	46	IX (*)	10 (150)	16 (240)	16 (240)	10 (150)	32	01	E290D1110SA0000	8290D1120SA0000
1/2”	15	4.1 (4.7)	68	IX (*)	10 (150)	16 (240)	16 (240)	10 (150)	32	01	E290D1210SA0000	8290D1220SA0000
		5.8 (6.7)	96	I (*)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	E290D1230SA0000	8290D1240SA0000
				II (*)		16 (240)	16 (240)	10 (150)	63	03	E290D1250SA0000	8290D1260SA0000
3/4”	20	6.5 (7.5)	108	IX (*)	10 (150)	16 (240)	16 (240)	10 (150)	32	01	E290D1310SA0000	8290D1320SA0000
		10.7 (12.4)	178	I (*)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	E290D1330SA0000	8290D1340SA0000
				II (*)		16 (240)	16 (240)	10 (150)	63	03	E290D1350SA0000	8290D1360SA0000

(✶) Ensure that compatibility of materials in contact with fluids is verified.
(*) Minimum pilot pressure varies with differential pressure, see page **13**
(1) For dimensions, see drawing(s) for each construction type on the following page(s).

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Specifications (angle seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type (1)	Catalog number	
Pipe size	DN					Air, inert gas (✶)	Water, oil, liquids (✶)	Steam (✶)			Thread type	
		m^3/h (gal/min)	(l/min)	Min.	Max.				(mm)		(G*)	(NPTF)
1”	25	15.5 (18)	258	I (*)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	E290D1430SA0000	8290D1440SA0000
		17.7 (20.5)	295	II (*)		16 (240)	16 (240)	10 (150)	63	03	E290D1450SA0000	8290D1460SA0000
		17.8 (20.6)	296	III (*)		16 (240)	16 (240)	10 (150)	90	04	E290D14B0SA0000	8290D14C0SA0000
1 1/4”	32	25.2 (29.2)	420	II (*)	10 (150)	16 (240)	16 (240)	10 (150)	63	03	E290D1550SA0000	8290D1560SA0000
		26.2 (30.4)	436	III (*)		16 (240)	16 (240)	10 (150)	90	04	E290D15B0SA0000	8290D15C0SA0000
		30.5 (35.4)	508	IV (*)		16 (240)	16 (240)	10 (150)	125	05	E290D15H0SA0000	8290D15J0SA0000
1 1/2”	40	38.3 (44.4)	638	II (*)	10 (150)	11 (165)	11 (165)	10 (150)	63	03	E290D1650SA0000	8290D1660SA0000
		40.4 (46.9)	673	III (*)		16 (240)	16 (240)	10 (150)	90	04	E290D16B0SA0000	8290D16C0SA0000
		46.1 (53.5)	768	IV (*)		16 (240)	16 (240)	10 (150)	125	05	E290D16H0SA0000	8290D16J0SA0000
2”	50	51.4 (59.7)	857	II (*)	10 (150)	7 (105)	7 (105)	7 (105)	63	03	E290D1750SA0000	8290D1760SA0000
		54.9 (63.7)	915	III (*)		13 (200)	13 (200)	10 (150)	90	04	E290D17B0SA0000	8290D17C0SA0000
		67.7 (78.5)	1128	IV (*)		16 (240)	16 (240)	10 (150)	125	05	E290D17H0SA0000	8290D17J0SA0000
2 1/2”	65	94 (109)	1566	III (*)	10 (150)	7 (105)	7 (105)	7 (105)	90	04	E290D18B0SA0000	8290D18C0SA0000
		111 (128.8)	1850	IV (*)		16 (240)	16 (240)	10 (150)	125	05	E290D18H0SA0000	8290D18J0SA0000
NC - Normally closed, entry above the disc (version recommended for rapid-cycling steam applications)												
3/8”	10	2.8 (3.2)	46	X (*)	10 (150)	10 (150)	-	10 (150)	32	01	E290D3110SA0000	8290D3120SA0000
1/2”	15	4.1 (4.7)	68	X (*)	10 (150)	10 (150)	-	10 (150)	32	01	E290D3210SA0000	8290D3220SA0000
		5.1 (5.9)	85	V (*)	10 (150)	10 (150)	-	10 (150)	50	02	E290D3230SA0000	8290D3240SA0000
		6.1 (7.1)	101	VI (*)	10 (150)	10 (150)	-	10 (150)	63	03	E290D3250SA0000	8290D3260SA0000
3/4”	20	6.5 (7.5)	108	X (*)	10 (150)	10 (150)	-	10 (150)	32	01	E290D3310SA0000	8290D3320SA0000
		10.3 (11.9)	171	V (*)	10 (150)	10 (150)	-	10 (150)	50	02	E290D3330SA0000	8290D3340SA0000
		11 (12.8)	183	VI (*)		10 (150)	-	10 (150)	63	03	E290D3350SA0000	8290D3360SA0000
1”	25	14.6 (16.9)	243	V (*)	10 (150)	10 (150)	-	10 (150)	50	02	E290D3430SA0000	8290D3440SA0000
		18.4 (21.3)	306	VI (*)		10 (150)	-	10 (150)	63	03	E290D3450SA0000	8290D3460SA0000
1 1/4”	32	30.7 (35.6)	511	VI (*)	10 (150)	10 (150)	-	10 (150)	63	03	E290D3550SA0000	8290D3560SA0000
		31 (36)	516	VII (*)		10 (150)	-	10 (150)	90	04	E290D35B0SA0000	8290D35C0SA0000

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(1) For dimensions, see drawing(s) for each construction type on the following page(s).

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ASCO™ Pneumatic Angle and Straight Seat Valves

Specifications (angle seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type (1)	Catalog number	
Pipe size	DN					Air, inert gas (✶)	Water, oil, liquids (✶)	Steam (✶)			Thread type	
		m³/h (gal/min)	(l/min)	Min.	Max.				(mm)		(G*)	(NPTF)
1 1/2”	40	43.9 (50.9)	731	VI (*)	10 (150)	10 (150)	-	10 (150)	63	03	E290D3650SA0000	8290D3660SA0000
		45 (52.2)	750	VII (*)		10 (150)	-	10 (150)	90	04	E290D36B0SA0000	8290D36C0SA0000
2”	50	58 (67.3)	966	VI (*)	10 (150)	9 (135)	-	9 (135)	63	03	E290D3750SA0000	8290D3760SA0000
		59 (68.4)	983	VII (*)		10 (150)	-	10 (150)	90	04	E290D37B0SA0000	8290D37C0SA0000
2 1/2”	65	94 (109)	1566	VII (*)	10 (150)	10 (150)	-	10 (150)	90	04	E290D38B0SA0000	8290D38C0SA0000
Bistable function (version recommended for high fast cycling)												
3/8”	10	2.8 (3.2)	46	XII (*)	8 (120)	10 (150)	10 (150)	-	32	01	E290D4110SA0000	8290D4120SA0000
1/2”	15	4.1 (4.7)	68	XII (*)	8 (120)	10 (150)	10 (150)	-	32	01	E290D4210SA0000	8290D4220SA0000
		5.8 (6.7)	96	X (*)	8 (120)	10 (150)	10 (150)	-	50	02	E290D4230SA0000	8290D4240SA0000
				XI (*)	8 (120)	10 (150)	10 (150)	-	63	03	E290D4250SA0000	8290D4260SA0000
3/4”	20	6.5 (7.5)	108	XII (*)	8 (120)	10 (150)	10 (150)	-	32	01	E290D4310SA0000	8290D4320SA0000
		10.7 (12.4)	178	X (*)	8 (120)	10 (150)	10 (150)	-	50	02	E290D4330SA0000	8290D4340SA0000
				XI (*)	8 (120)	10 (150)	10 (150)	-	63	03	E290D4350SA0000	8290D4360SA0000
1”	25	15.5 (18)	258	X (*)	8 (120)	10 (150)	10 (150)	-	50	02	E290D4430SA0000	8290D4440SA0000
		17.7 (20.5)	295	XI (*)	8 (120)	10 (150)	10 (150)	-	63	03	E290D4450SA0000	8290D4460SA0000

Specifications (straight seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type (1)	Catalog number	
Pipe size	DN					Air, inert gas (✶)	Water, oil, liquids (✶)	Steam (✶)			Flange type	
		m³/h (gal/min)	(l/min)	Min.	Max.				(mm)		DIN EN 1092-1	ANSI 150 ASME B16.5
NC - Normally closed, entry under the disc												
1/2”	15	4.4 (5.1)	73	4.5 (70)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	T290D023DSA0000	T290D024PSA0000
				5.5 (80)		25 (360)	25 (360)	10 (150)	50	02	T290D023DSP1600	T290D024PSP1600
				2.8 (45)	10 (150)	16 (240)	16 (240)	10 (150)	63	03	T290D025DSA0000	T290D026PSA0000
				4.5 (70)		25 (360)	25 (360)	10 (150)	63	03	T290D025DSP1600	T290D026PSP1600

(✶) Ensure that compatibility of materials in contact with fluids is verified.
(*) Minimum pilot pressure varies with differential pressure, see page **13**
(1) For dimensions, see drawing(s) for each construction type on the following page(s).

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Specifications (straight seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type (1)	Catalog number	
Pipe size	DN					Air, inert gas (∗)	Water, oil, liquids (∗)	Steam (∗)			Flange type	
		m³/h (gal/min)	(l/min)	Min.	Max.				(mm)		DIN EN 1092-1	ANSI 150 ASME B16.5
3/4”	20	7.2 (8.3)	120	4.5 (70)	10 (150)	10 (150)	10 (150)	10 (150)	50	02	T290D033DSA0000	T290D034PSA0000
				5.5 (80)	10 (150)	14 (210)	14 (210)	10 (150)	50	02	T290D033DSP1600	T290D034PSP1600
		7.2 (8.3)	120	4.5 (70)	10 (150)	16 (240)	16 (240)	10 (150)	63	03	T290D035DSA0000	T290D036PSA0000
				2.8 (45)	10 (150)	12 (180)	12 (180)	10 (150)	63	03	T290D735DSA0000	T290D736PSA0000
				4.5 (70)	10 (150)	20 (300)	20 (300)	10 (150)	63	03	T290D035DSP1600	T290D036PSP1600
1”	25	11.2 (12.9)	186	4.5 (70)	10 (150)	6 (90)	6 (90)	6 (90)	50	02	T290D043DSA0000	T290D044PSA0000
				5.5 (80)		9 (135)	9 (135)	9 (135)	50	02	T290D043DSP1600	T290D044PSP1600
		12.1 (14)	201	4.5 (70)	10 (150)	10 (150)	10 (150)	10 (150)	63	03	T290D045DSA0000	T290D046PSA0000
		12.9 (14,9)	215	4.5 (70)	10 (150)	16 (240)	16 (240)	10 (150)	90	04	T290D04BDSA0000	T290D04CPSA0000
		12.1 (14)	201	2.8 (45)	10 (150)	6 (90)	6 (90)	6 (90)	63	03	T290D745DSA0000	T290D746PSA0000
		12.9 (14,9)	215	2,8 (45)	10 (150)	12 (180)	12 (180)	10 (150)	90	04	T290D74BDSA0000	T290D74CPSA0000
				4.5 (70)		25 (360)	25 (360)	10 (150)	90	04	T290D04BDSP1600	T290D04CPSP1600
1 1/4”	32	19 (22)	316	4.5 (70)	10 (150)	6 (90)	6 (90)	6 (90)	63	03	T290D055DSA0000	T290D056PSA0000
		19.4 (22.5)	323	4.5 (70)	10 (150)	12 (180)	12 (180)	10 (150)	90	04	T290D05BDSA0000	T290D05CPSA0000
		19 (22)	316	2.8 (45)	10 (150)	3 (45)	3 (45)	3 (45)	63	03	T290D755DSA0000	T290D756PSA0000
		19.4 (22.5)	323	2.8 (45)	10 (150)	7 (105)	7 (105)	7 (105)	90	04	T290D75BDSA0000	T290D75CPSA0000
				4 (60)	10 (150)	16 (240)	16 (240)	10 (150)	125	05	T290D05HDSA0000	T290D05JPSA0000
1 1/2”	40	27.3 (31.6)	455	4.5 (70)	10 (150)	4 (60)	4 (60)	4 (60)	63	03	T290D065DSA0000	T290D066PSA0000
		27.4 (31.7)	456	4.5 (70)	10 (150)	8 (120)	8 (120)	8 (120)	90	04	T290D06BDSA0000	T290D06CPSA0000
		27.6 (32)	460	4 (60)	10 (150)	16 (240)	16 (240)	10 (150)	125	05	T290D06HDSA0000	T290D06JPSA0000
		27.4 (31.7)	456	2.8 (45)	10 (150)	4 (60)	4 (60)	4 (60)	90	04	T290D76BDSA0000	T290D76CPSA0000
		27.6 (32)	460	2.5 (40)	10 (150)	10 (150)	10 (150)	10 (150)	125	05	T290D76HDSA0000	T290D76JPSA0000
2”	50	39.7 (46)	661	4.5 (70)	10 (150)	2.5 (40)	2.5 (40)	2.5 (40)	63	03	T290D075DSA0000	T290D076PSA0000
		40.8 (47.3)	680	4.5 (70)	10 (150)	6 (90)	6 (90)	6 (90)	90	04	T290D07BDSA0000	T290D07CPSA0000
		40.9 (47.4)	681	4 (60)	10 (150)	10 (150)	10 (150)	10 (150)	125	05	T290D07HDSA0000	T290D07JPSA0000
				2.5 (40)		5 (75)	5 (75)	5 (75)	125	05	T290D77HDSA0000	T290D77JPSA0000

(∗) Ensure that compatibility of materials in contact with fluids is verified.
(∗) Minimum pilot pressure varies with differential pressure, see page **13**
(1) For dimensions, see drawing(s) for each construction type on the following page(s).

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ASCO™ Pneumatic Angle and Straight Seat Valves

Specifications (straight seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type (1)	Catalog number	
Pipe size	DN					Air, inert gas (✶)	Water, oil, liquids (✶)	Steam (✶)			Flange type	
		m³/h (gal/min)	(l/min)	Min.	Max.				(mm)		DIN EN 1092-1	ANSI 150 ASME B16.5
2 1/2”	65	65.4 (75.8)	1090	4.5 (70)	10 (150)	2 (30)	2 (30)	2 (30)	90	04	T290D08BDSA0000	T290D08CPSA0000
		70.3 (81.5)	1171	4 (60)	10 (150)	6 (90)	6 (90)	6 (90)	125	05	T290D08HDSA0000	T290D08JPSA0000
NO - Normally open, entry under the disc												
1/2”	15	4.4 (5.1)	73	I (*)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	T290D123DSA0000	T290D124PSA0000
		4.4 (5.1)	73	II (*)		16 (240)	16 (240)	10 (150)	63	03	T290D125DSA0000	T290D126PSA0000
3/4”	20	7.2 (8.3)	120	I (*)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	T290D133DSA0000	T290D134PSA0000
		7.2 (8.3)	120	II (*)		16 (240)	16 (240)	10 (150)	63	03	T290D135DSA0000	T290D136PSA0000
1”	25	11.2 (12.9)	186	I (*)	10 (150)	16 (240)	16 (240)	10 (150)	50	02	T290D143DSA0000	T290D144PSA0000
		12.1 (14)	201	II (*)		16 (240)	16 (240)	10 (150)	63	03	T290D145DSA0000	T290D146PSA0000
		12.9 (14.9)	215	III (*)		16 (240)	16 (240)	10 (150)	90	04	T290D14BDSA0000	T290D14CPSA0000
1 1/4”	32	19 (22)	316	II (*)	10 (150)	16 (240)	16 (240)	10 (150)	63	03	T290D155DSA0000	T290D156PSA0000
		19.4 (22.5)	323	III (*)		16 (240)	16 (240)	10 (150)	90	04	T290D15BDSA0000	T290D15CPSA0000
		19.4 (22.5)	323	IV (*)		16 (240)	16 (240)	10 (150)	125	05	T290D15HDSA0000	T290D15JPSA0000
1 1/2”	40	27.3 (31.6)	455	II (*)	10 (150)	11 (165)	11 (165)	10 (150)	63	03	T290D165DSA0000	T290D166PSA0000
		27.4 (31.7)	456	III (*)		16 (240)	16 (240)	10 (150)	90	04	T290D16BDSA0000	T290D16CPSA0000
		27.6 (32)	460	IV (*)		16 (240)	16 (240)	10 (150)	125	05	T290D16HDSA0000	T290D16JPSA0000
2”	50	39.7 (46)	661	II (*)	10 (150)	7 (105)	7 (105)	7 (105)	63	03	T290D175DSA0000	T290D176PSA0000
		40.8 (47.3)	680	III (*)		13 (200)	13 (200)	10 (150)	90	04	T290D17BDSA0000	T290D17CPSA0000
		40.9 (47.4)	681	IV (*)		16 (240)	16 (240)	10 (150)	125	05	T290D17HDSA0000	T290D17JPSA0000
2 1/2”	65	65.4 (75.8)	1090	III (*)	10 (150)	7 (105)	7 (105)	7 (105)	90	04	T290D18BDSA0000	T290D18CPSA0000
		70.3 (81.5)	1171	IV (*)		16 (240)	16 (240)	10 (150)	125	05	T290D18HDSA0000	T290D18JPSA0000

(✶) Ensure that compatibility of materials in contact with fluids is verified.
(*) Minimum pilot pressure varies with differential pressure, see page: **13**
(1) For dimensions, see drawing(s) for each construction type on the following page(s).

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Specifications (straight seat valves)

Piping (ISO 6708)		Flow coefficient Kv (Cv)		Pilot pressure bar (psi)		Operating pressure differential bar (psi)			Actuator diameter	Dimensions / Type (1)	Catalog number	
Pipe size	DN					Air, inert gas (✶)	Water, oil, liquids (✶)	Steam (✶)			Flange type	
		m^3/h (gal/min)	(l/min)	Min.	Max.				(mm)		DIN EN 1092-1	ANSI 150 ASME B16.5
NC - Normally closed, entry above the disc (version recommended for rapid-cycling steam applications)												
1/2"	15	3.8 (4.4)	63	V (∗)	10 (150)	10 (150)	-	10 (150)	50	01	T290D323DSA0000	T290D324PSA0000
				VI (∗)		10 (150)	-	10 (150)	63	02	T290D325DSA0000	T290D326PSA0000
3/4"	20	7.4 (8.5)	123	V (∗)	10 (150)	10 (150)	-	10 (150)	50	01	T290D333DSA0000	T290D334PSA0000
				VI (∗)		10 (150)	-	10 (150)	63	02	T290D335DSA0000	T290D336PSA0000
1"	25	11.3 (13.1)	188	V (∗)	10 (150)	10 (150)	-	10 (150)	50	01	T290D343DSA0000	T290D344PSA0000
		13.1 (15.1)	218	VI (∗)		10 (150)	-	10 (150)	63	02	T290D345DSA0000	T290D346PSA0000
1 1/4"	32	19.7 (22.8)	328	VI (∗)	10 (150)	10 (150)	-	10 (150)	63	02	T290D355DSA0000	T290D356PSA0000
		20.9 (24.2)	348	VII (∗)		10 (150)	-	10 (150)	90	03	T290D35BDSA0000	T290D35CPSA0000
1 1/2"	40	26.8 (31)	446	VI (∗)	10 (150)	10 (150)	-	10 (150)	63	02	T290D365DSA0000	T290D366PSA0000
		28.6 (33.1)	476	VII (∗)		10 (150)	-	10 (150)	90	03	T290D36BDSA0000	T290D36CPSA0000
2"	50	40.3 (46.7)	671	VI (∗)	10 (150)	9 (135)	-	9 (135)	63	02	T290D375DSA0000	T290D376PSA0000
		41.8 (48.4)	696	VII (∗)		10 (150)	-	10 (150)	90	03	T290D37BDSA0000	T290D37CPSA0000
2 1/2"	65	66.8 (77.4)	1113	VII (∗)	10 (150)	10 (150)	-	10 (150)	90	03	T290D38BDSA0000	T290D38CPSA0000

(✶) Ensure that compatibility of materials in contact with fluids is verified.
(∗) Minimum pilot pressure varies with differential pressure, see page: **13**
(1) For dimensions, see drawing(s) for each construction type on the following page(s).

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ASCO™ Pneumatic Angle and Straight Seat Valves

Product selection guide

Configurator - CAD Files

PRODUCT CODE

E	290	D	0	3	1	0	S	A00	00

Connection type
- **E** = ISO 228/1 & ISO 7/1 (combination thread, G*)
- **8** = NPTF (ANSI B 1.20.3)
- **T** = Flange
- **J** = ISO 7/1 «Rc»

Product series
290

Revision letter
- **D** = Initial release

Function
- **0** = Normally Closed
- **1** = Normally Open
- **7** = Normally Closed - Low pilot pressure
- **3** = Normally Closed - Above the disc
- **4** = Double Acting (bistable)
- **P** = Normally closed with profil disc

Nominal diameter
- **1** = DN10 - 3/8”
- **2** = DN15 - 1/2”
- **3** = DN20 - 3/4”
- **4** = DN25 - 1”
- **5** = DN32 - 1 1/4”
- **6** = DN40 - 1 1/2”
- **7** = DN50 - 2”
- **8** = DN65 - 2 1/2”

Actuator diameter - Piloting connections
- **1** = 32 mm plastic - G 1/8”
- **2** = 32 mm plastic - NPT 1/8”
- **3** = 50 mm plastic - G 1/8”
- **4** = 50 mm plastic - NPTF 1/8”
- **5** = 63 mm plastic - G 1/8”
- **6** = 63 mm plastic - NPTF 1/8”
- **B** = 90 mm plastic - G 1/4”
- **C** = 90 mm plastic - NPTF 1/4”
- **H** = 125 mm plastic - G 1/4”
- **J** = 125 mm plastic - NPTF 1/4”
- **9** = 63 mm plastic - NAMUR plate (3)
- **A** = 90 mm plastic - NAMUR plate (3)
- **F** = 125 mm plastic - NAMUR plate (3)

(3) Solenoid pilot valves, series 551, 3/2 NC:
- Aluminum body, catalog number **SCG551A001**
- AISI 316L stainless steel body, catalog number **SCG551A40**

Options
- **A00** = Without
- **PFB** = Prepared for signaling box mounting (1)
- **W0B** = Without body (1)
- **AT1** = ATEX/IECEx 1/21 zones (1)
- **AT0** = ATEX/IECEx 0/20 zones (1)
- **02S** = Oxygen service 15 bar / 60°C
- **125** = CUTR certification (EAC Ex 1/21 zones) for Product
- **STL** = Stroke limiter for opening (1)
- **TC6** = Test tightness class VI (1)
- **VAC** = Industrial vacuum 10^{-3} mbar (1)
- **M31** = Stainless steel valve body material certified 3.1
- **FB0** = EC 1935-2004 and FDA CFR 21 material
- **WSP** = PTFE wiper seal
- **WSF** = FPM piston seal
- **11B** = Manual safety device (1)
- **P16** = PS > 16 bar (240 psi)
- **V10** = Visual indicator (2)
- **SSF** = Stainless steel insert for plastic actuator

Valve body material
- **S** = Stainless steel body
- **Y** = All 316L

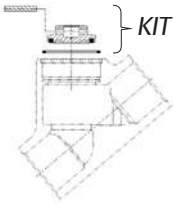
Port type 1-2
- **0** = Threaded port
- **D** = Flange DIN EN 1092-1 (ISO 7005) standard (2-way)
- **P** = Flange ANSI standard 150 (2-way)

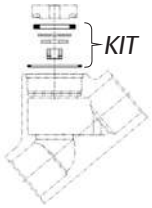
(1) See “Choice of options and accessories”, pages **14** and **15**
(2) For 32 mm and 50 mm actuators (standard for 63 mm, 90 mm and 125 mm actuators)

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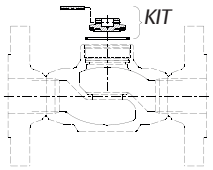
Repair Kits and Service Parts

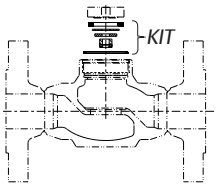
Angle seat valve

	Ø	DN	Spare parts kits no. 50-63-90-125 mm entry under the disc	
			Normally Closed	Normally Open + Double Acting (bistable)
	1/2”	15	M29054935100800	M29054935103500
	3/4”	20	M29054935100900	M29054935103600
	1”	25	M29054935101000	M29054935103700
	1 1/4”	32	M29054935101100	M29054935105200
	1 1/2”	40	M29054935101200	M29054935105300
	2”	50	M29054935101300	M29054935105400
	2 1/2”	65	M29054935101400	M29054935105500

	Ø	DN	Spare parts kits no. 50-63-90-125 mm entry above the disc
	1/2”	15	M29054935100100
	3/4”	20	M29054935100200
	1”	25	M29054935100300
	1 1/4”	32	M29054935100400
	1 1/2”	40	M29054935100500
	2”	50	M29054935100600
	2 1/2”	65	M29054935100700

Straight seat valve

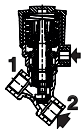
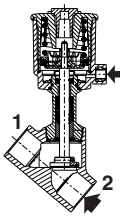
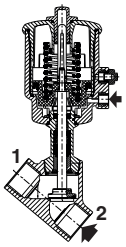
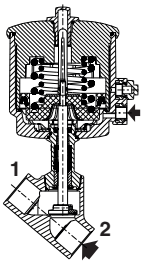
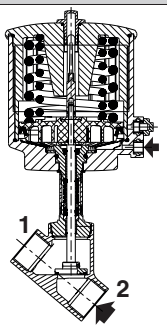
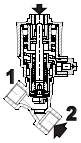
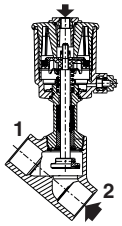
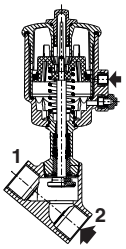
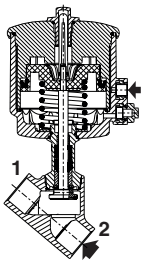
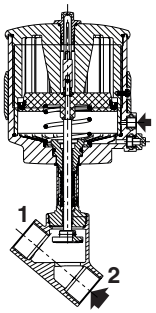
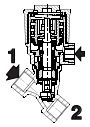
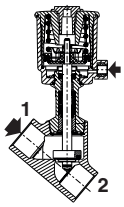
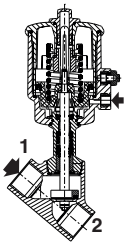
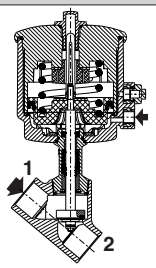
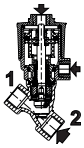
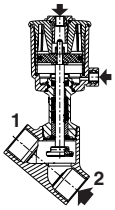
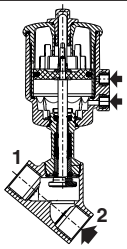
	Ø	DN	Spare parts kits no. 50-63-90-125 mm entry under the disc	
			Normally Closed	Normally Open
	1/2”	15	M29054935100800	M29054935103500
	3/4”	20	M29054935100900	M29054935103600
	1”	25	M29054935101000	M29054935103700
	1 1/4”	32	M29054935101100	M29054935105200
	1 1/2”	40	M29054935101200	M29054935105300
	2”	50	M29054935101300	M29054935105400
	2 1/2”	65	M29054935101400	M29054935105500

	Ø	DN	Spare parts kits no. 50-63-90-125 mm entry above the disc
	1/2”	15	M29054935100100
	3/4”	20	M29054935100200
	1”	25	M29054935100300
	1 1/4”	32	M29054935100400
	1 1/2”	40	M29054935100500
	2”	50	M29054935100600
	2 1/2”	65	M29054935100700

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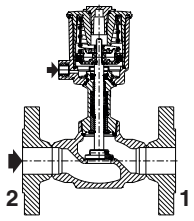
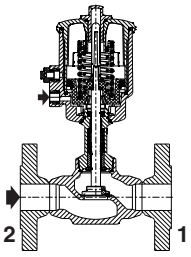
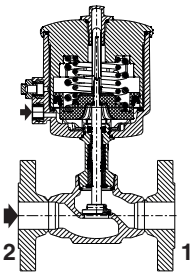
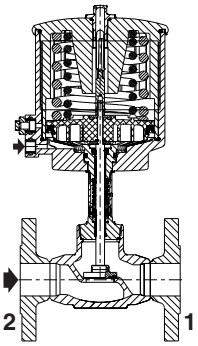
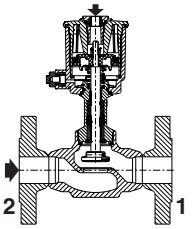
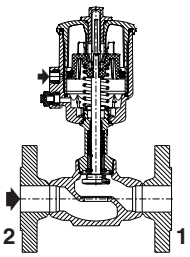
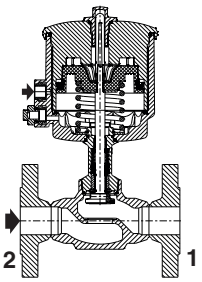
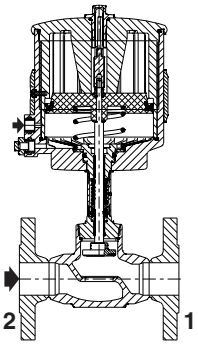
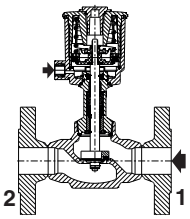
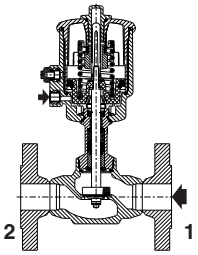
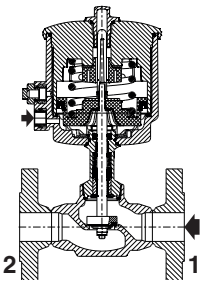
ASCO™ Pneumatic Angle and Straight Seat Valves

Angle seat valve - View showing the function / actuator / flow direction

32 mm actuator	50 mm actuator	63 mm actuator	90 mm actuator	125 mm actuator
NC - Normally closed, entry under the disc				
				
NO - Normally open, entry under the disc				
				
NC - Normally closed, entry above the disc				
				-
Bistable function				
			-	-

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Straight seat valve - View showing the function / actuator / flow direction

50 mm actuator	63 mm actuator	90 mm actuator	125 mm actuator
NC - Normally closed, entry under the disc			
			
NO - Normally open, entry under the disc			
			
NC - Normally closed, entry above the disc			
			-

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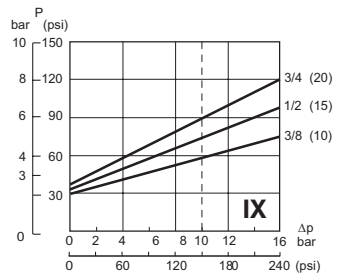
ASCO™ Pneumatic Angle and Straight Seat Valves

Selection of the minimum pilot pressure

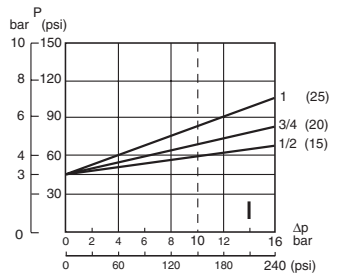
NO - Normally open, entry under the disc

Min. pilot pressure

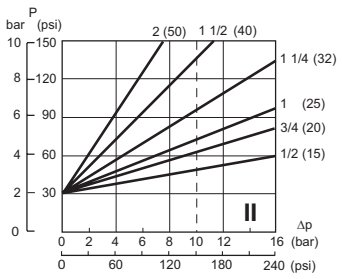
32 mm actuator



50 mm actuator

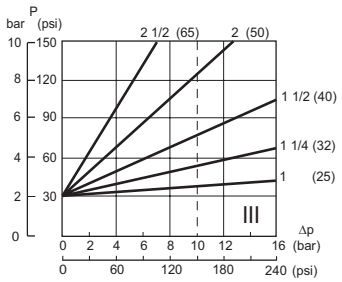


63 mm actuator

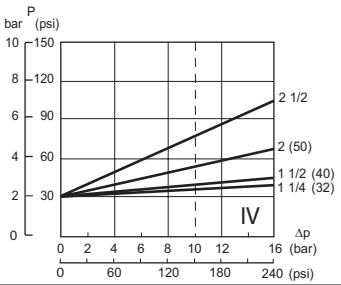


Min. pilot pressure

90 mm actuator



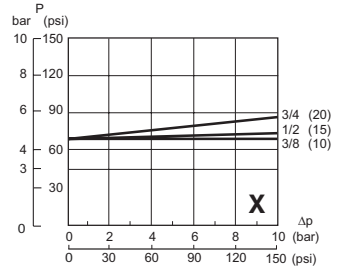
125 mm operator



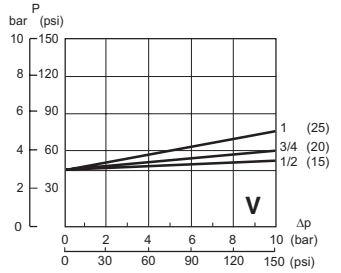
NC - Normally closed, entry above the disc

Min. pilot pressure

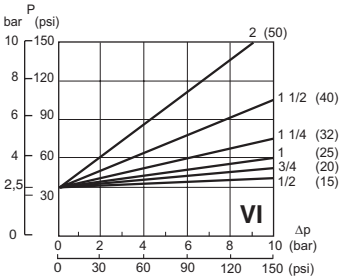
32 mm actuator



50 mm actuator

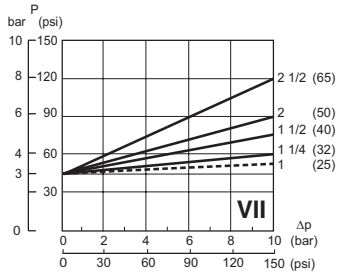


63 mm actuator



Min. pilot pressure

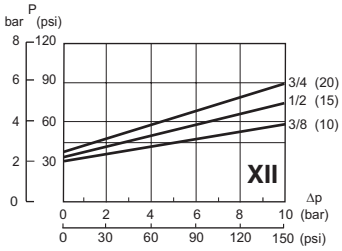
90 mm actuator



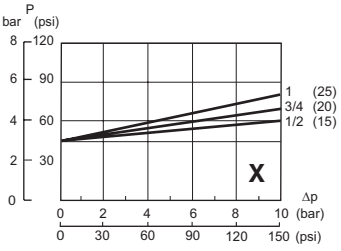
Bistable function

Min. pilot pressure

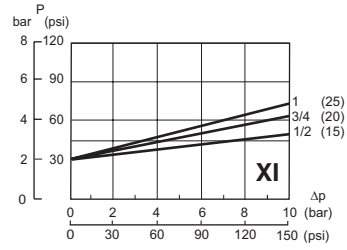
32 mm actuator



50 mm actuator



63 mm actuator



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Installation

- Valves can be mounted in any position without affecting operation
- Possibility to interchange actuators (sizes/functions) on the same body
- Adjustable actuator enables 360° access to pilot port
- Compatible with ASTM 1, 2 and 3 oils
- Pipe connections (G*) have standard combination thread according to ISO 228/1 and ISO 7/1
- Thread connection (NPTF) has a standard thread according to ANSI B 1.20.3
- Thread connection (Rc) has a standard thread according to ISO 7/1
- Pilot thread connection (G) or (NPTF) have standard thread according to ISO 228/1 or ANSI B 1.20.3
- Installation/maintenance instructions in multiple languages are available on our website

Choice of options and accessories

Options	NC Fluid entry under the disc	NO Fluid entry under the disc	NC Fluid entry above the disc	- Bistable function	Actuator diameter compatibility (mm)				
					32	50	63	90	125
AT0	●	●	●	●	●	●	●	●	●
AT1	●	●	●	●	●	●	●	●	●

When a combination of several options are selected (using the product configurator on our website) you will be provided with a specific combination code

ATEX/IECEx

- 2/2 valves NC/NO designed for use in potentially explosive atmospheres in accordance with ATEX-Directive 2014/34/EU
  EC type examination certificate no.: **LCIE 20 ATEX 3037 X**
  IECEx Certificate of Conformity no.: **IECEx LCIE 20.0025X**
- Compliance with the Essential Health and Safety Requirements of the ATEX Directive has been assured by compliance with European Standards EN ISO 80079-36 and EN ISO 80079-37
- Recommended for applications in the chemical, oil, gas and paint coating industries etc.

ATEX-Directive 2014/34/EU, category 1

Classification (zones) Category 1						
Dusts			Gas			Safety code
IIIA	IIIB	IIIC	IIA	IIB	IIC	
Zone 20			Zone 0			Ⓔx II 1G Ex h IIC T* Ga Ⓔx II 1D Ex h IIIC T*°C Da

1GD		Plastic actuator	
T*°C	T*	Ts amb	T fluid
300°C	T2	-	-
200°C	T3	60°C	145°C
135°C	T4	60°C	93°C
100°C	T5	60°C	65°C
85°C	T6	60°C	53°C

ATEX-Directive 2014/34/EU, category 2

Classification (zones) Category 2						
Dusts			Gas			Safety code
IIIA	IIIB	IIIC	IIA	IIB	IIC	
Zone 21			Zone 1			Ⓔx II 2G Ex h IIC T* Gb X Ⓔx II 2D Ex h IIIC T*°C Db X

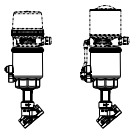
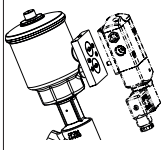
2GD		Plastic actuator	
T*°C	T*	Ts amb	T fluid
300°C	T2	-	-
200°C	T3	60°C	180°C
135°C	T4	60°C	115°C
100°C	T5	60°C	80°C
85°C	T6	60°C	60°C

T*°C = Surface temperature
T* = Temperature class
Ts amb = Ambient temperature
T fluid = Fluid temperature

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ASCO™ Pneumatic Angle and Straight Seat Valves

Choice of options and accessories

Options	NC Fluid entry under the disc	NO Fluid entry under the disc	NC Fluid entry above the disc	- Bistable function	Actuator diameter compatibility (mm) 32	50	63	90	125	
PFB	●	●	●	–	●	●	●	●	●	 Prepared for signaling box mounting
–	●	●	●	–	–	●	●	●	●	 **See the dedicated catalogue pages** • The signaling box can be installed on compatible actuators and indicates whether the valve is open or closed
–	●	●	●	–	●	●	●	●	●	 **See the dedicated catalogue pages** • Signaling unit with reed switch or magneto-resistive (MR) detectors for compatible actuators
W0B	●	●	●	●	●	●	●	●	●	 Without Body
02S	●	●	●	●	●	●	●	●	●	 **Oxygen service** • Special grease and cleaning • Pressure limited to 15 bar/temperature limited to +60°C
see page 9	●	●	●	●	–	–	●	●	●	 **Adapter plate for NAMUR pad-mount pilot** • Adaptable sur actionneurs 63 mm, 90 mm et 125 mm • Stainless steel AISI 316L • Solenoid pilot valves, series 551, 3/2 NC: - Aluminum body, catalog number **SCG551A001** - AISI 316L stainless steel body, catalog number **SCG551A409**
STL	●	–	●	–	–	●	●	●	●	 Stroke limiter for opening
TC6	●	●	●	●	●	●	●	●	●	Test tightness class VI (FCI 70-2)
VAC	●	●	–	–	●	●	●	●	●	 Industrial vacuum 10^{-3} mbar (FPM disc)
M31	●	●	●	●	●	●	●	●	●	Valve body material composition certificate 3.1
FB0	●	●	●	●	●	●	●	●	●	 EC 1935-2004 and FDA CFR 21 material
WSP	●	●	●	–	●	●	●	●	●	PTFE wiper seal (for filtered / cleaned medium)
WSF	●	●	●	–	●	●	●	●	–	FPM piston seal
11B	●	–	●	–	–	●	●	●	●	 Manual safety device • Allows opening of a de-energized valve • For normally closed (NC) valves only (under/above the disc)
P16	●	–	–	–	–	●	●	●	–	PS > 16 bar (240 psi)
V10	●	●	●	–	●	● (NC)	(1)	(1)	(1)	 Visual position indicator (1) • Visual indication of open or closed position for NC valves with 32 mm or 50 mm actuator • Applicable for NO and double acting valves with 32 mm actuator (1) Standard indicator for 63 mm, 90 mm and 125 mm actuators

When a combination of several options are selected (using the product configurator on our website) you will be provided with a specific combination code

• Available feature - Not available

Choice of pilots

(For information about pilots, please consult the dedicated catalog pages)

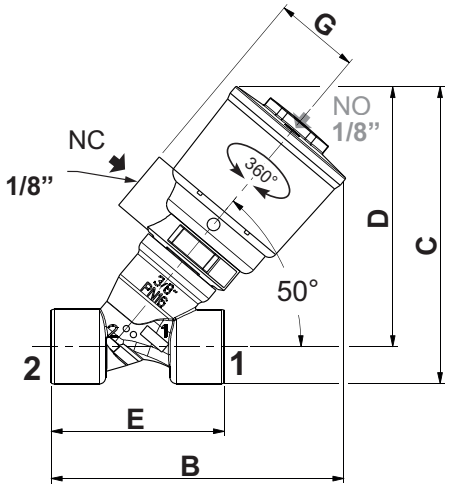
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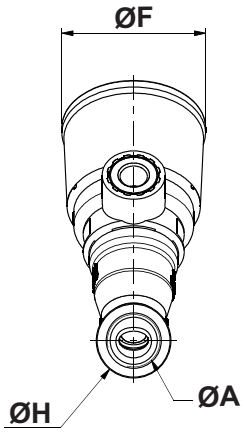
Dimensions mm (inches), **Weight** kg (Lbs)

Configurator - CAD Files

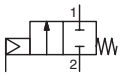


TYPE 01
32 mm actuator / Angle seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

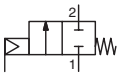




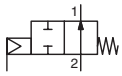
NC
entry
under the disc at 2



NC
entry
above the disc at 1

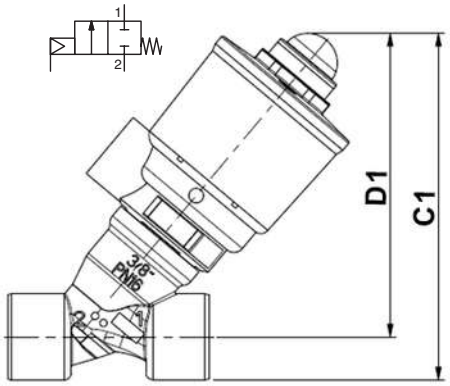


NO
entry
under the disc at 2

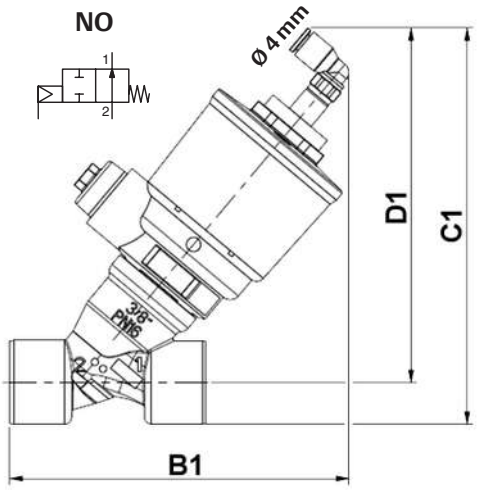


Visual indicator (**V10**)

NC



NO



Type	Actuator diameter	ØA		B	B1 NO (V10)	C	C1 NC (V10)	C1 NO (V10)	D	D1 NC (V10)	D1 NO (V10)	E	ØF	G	ØH	Weight (1)	
01	32 mm	G* 3/8”	mm	94	95	94	95	111.5	83	83.5	100	55	46	27	24	0.3	kg
		NPT 3/8”	(in)	3.701	3.740	3.701	3.740	4.390	3.268	3.287	3.937	2.165	1.811	1.063	0.945	0.7	(Lbs)
		G* 1/2”	mm	100	102	98	99	115.5	85	85.5	102	65	46	27	28	0.4	kg
		NPT 1/2”	(in)	3.937	4.016	3.858	3.898	4.547	3.346	3.366	4.016	2.559	1.811	1.063	1.102	0.8	(Lbs)
		G* 3/4”	mm	108	110	106	106.5	123	90	90.5	107	75	46	27	32	0.5	kg
		NPT 3/4”	(in)	4.252	4.331	4.173	4.193	4.843	3.543	3.563	4.213	2.953	1.811	1.063	1.260	1.0	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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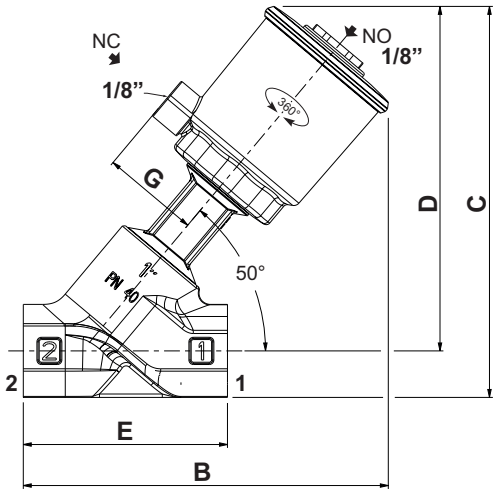
ASCO™ Pneumatic Angle and Straight Seat Valves

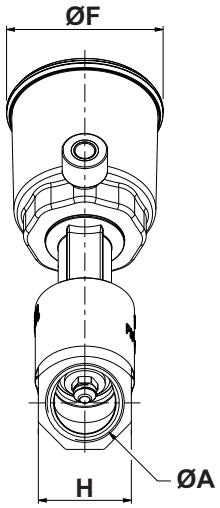
Dimensions mm (inches), **Weight** kg (Lbs)

Configurator - CAD Files

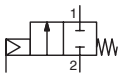


TYPE 02
50 mm actuator / Angle seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

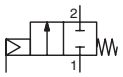




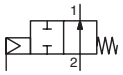
NC
entry
under the disc at 2



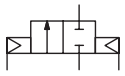
NC
entry
above the disc at 1



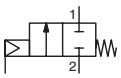
NO
entry
under the disc at 2



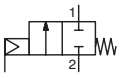
Bistable
entry under the
disc at 2



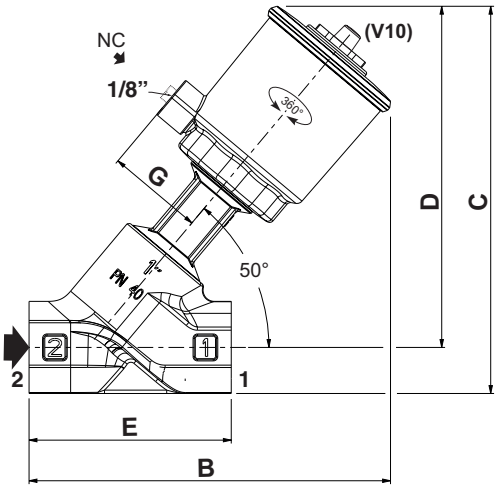
2 x 1/8”
orifices for piloting

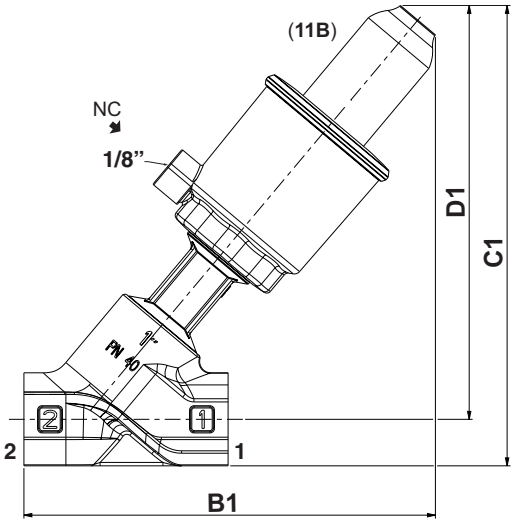


Visual indicator (**V10**)
(NC only)



Manual safety device (**11B**)
(NC only)





Type	Actuator diameter	ØA		B	B1	C	C1	D	D1	E	ØF	G	H	Weight (1)	
02	50 mm	G* 1/2”	mm	147.5	168	156.5	187	143	173.5	65	69	43	27	0.8	kg
		NPTF 1/2”	(in)	5.807	6.614	6.161	7.362	5.630	6.831	2.559	2.717	1.693	1.063	1.8	(Lbs)
		G* 3/4”	mm	151.5	172	160	191	144	174.5	75	69	43	32	0.9	kg
		NPTF 3/4”	(in)	5.965	6.772	6.299	7.520	5.669	6.870	2.953	2.717	1.693	1.260	2.0	(Lbs)
		G* 1”	mm	161	181.5	172.5	203	152	182.5	90	69	43	41	1.2	kg
		NPTF 1”	(in)	6.339	7.146	6.791	7.992	5.984	7.185	3.543	2.717	1.693	1.614	2.6	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

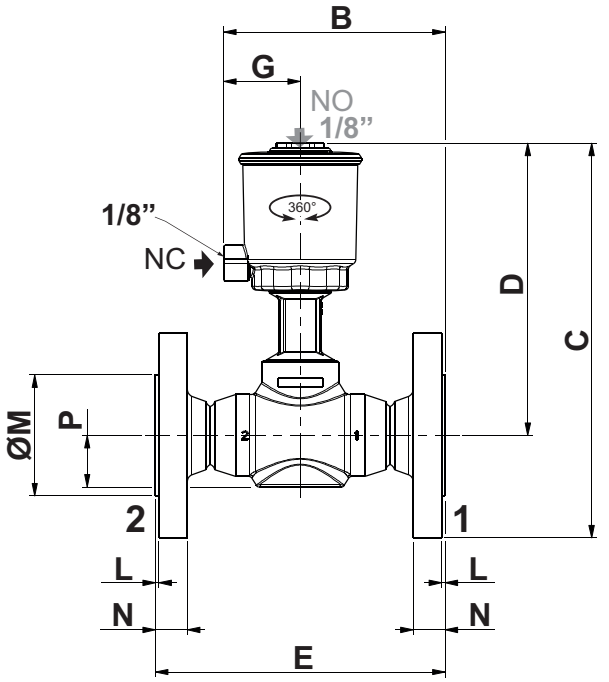
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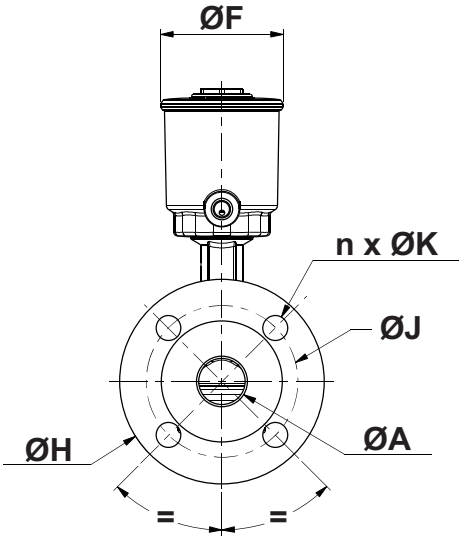
Dimensions mm (inches), **Weight** kg (Lbs)

Configurator - CAD Files

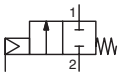


TYPE 02
50 mm actuator / Straight seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

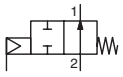




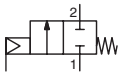
NC
entry
under the disc at 2

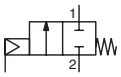


NO
entry
under the disc at 2

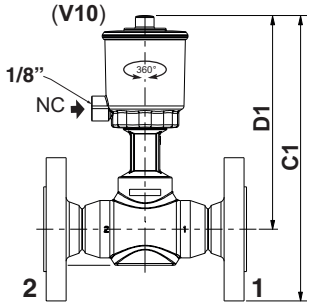


NC
entry
above the disc at 1

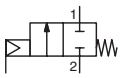




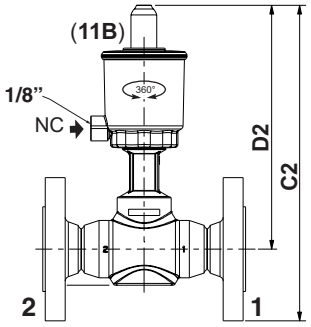
Visual Indicator (**V10**)
(NC only)



DN		C1		D1
		ISO	ANSI	
15	mm	214	211.5	166.5
	(in)	8.425	8.327	6.555
20	mm	218.5	216	166
	(in)	8.602	8.504	6.535
25	mm	231.5	229	174
	(in)	9.114	9.016	6.850



Manual safety device (**11B**)
(NC only)



DN		C2		D2
		ISO	ANSI	
15	mm	257.5	255	210
	(in)	10.138	10.039	8.268
20	mm	262	259.5	209.5
	(in)	10.315	10.217	8.248
25	mm	275	272.5	218
	(in)	10.827	10.728	8.563

Type	Actuator diameter	DN		ØA	B	C		D	E	ØF	G	ØH		ØJ	
						ISO	ANSI					ISO	ANSI	ISO	ANSI
02	50 mm	15	mm	17.3	108	204.5	202	157	130	69	43	95	90	65	60.3
			(in)	0.681	4.252	8.051	7.953	6.181	5.118	2.717	1.693	3.740	3.543	2.559	2.374
		20	mm	22.3	118	208.5	206	156	150	69	43	105	100	75	69.9
			(in)	0.878	4.646	8.209	8.110	6.142	5.906	2.717	1.693	4.134	3.937	2.953	2.752
		25	mm	28.5	123	222	219.5	164.5	160	69	43	115	110	85	79.4
			(in)	1.122	4.843	8.740	8.642	6.476	6.299	2.717	1.693	4.528	4.331	3.346	3.126

DN		ØA	n x ØK		L		M		N		P	Weight (1)		
			ISO	ANSI	ISO	ANSI	ISO	ANSI	ISO	ANSI		ISO	ANSI	
15	mm	17.3	4 X 14	4 X 16	2	1.5	45	34.9	16	13.2	19.75	2.5	2.1	kg
	(in)	0.681	4 X 0.551	4 X 0.63	0.079	0.059	1.772	1.374	0.630	0.520	0.778	5.4	4.5	(Lbs)
20	mm	22.3	4 X 14	4 X 16	2	1.5	58	42.9	18	13.2	23	3.3	2.6	kg
	(in)	0.878	4 X 0.551	4 X 0.63	0.079	0.059	2.283	1.689	0.709	0.520	0.906	7.3	5.7	(Lbs)
25	mm	28.5	4 X 14	4 X 16	2	1.5	68	50.8	18	14.2	29	4.0	3.3	kg
	(in)	1.122	4 X 0.551	4 X 0.63	0.079	0.059	2.677	2.000	0.709	0.559	1.142	8.9	7.4	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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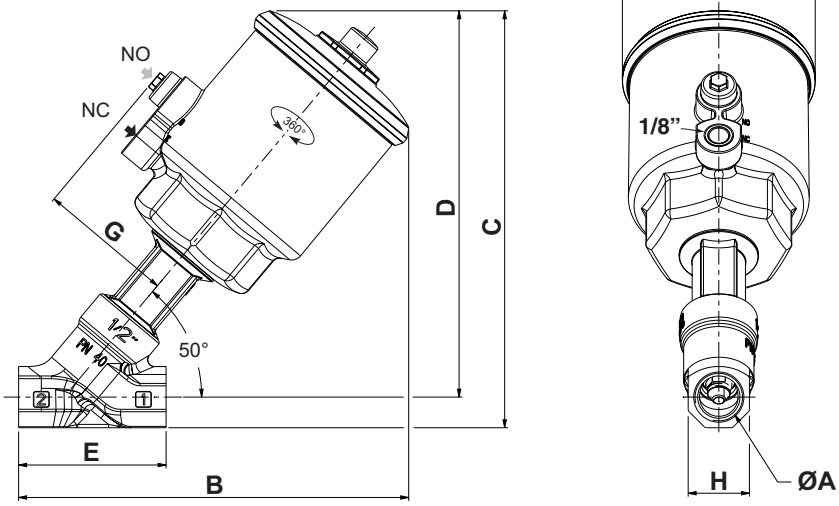
ASCO™ Pneumatic Angle and Straight Seat Valves

Dimensions mm (inches), **Weight** kg (Lbs)

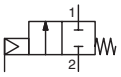
Configurator - CAD Files



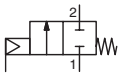
TYPE 03
63 mm actuator / Angle seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1



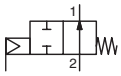
NC
entry
under the disc at 2

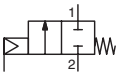


NC
entry
above the disc at 1

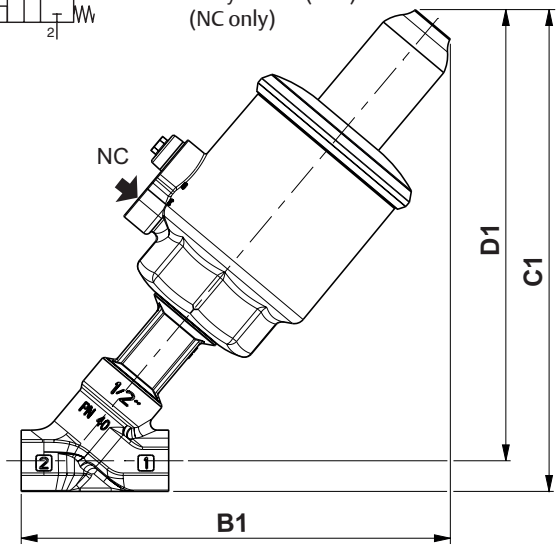


NO
entry
under the disc at 2

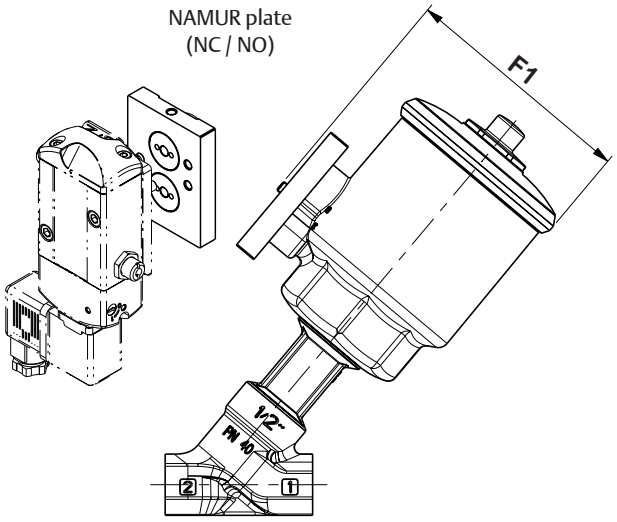




Manual safety device (**11B**)
(NC only)



NAMUR plate
(NC / NO)



Type	Actuator diameter	ØA		B	B1	C	C1	D	D1	E	ØF	F1	G	H	Weight (1)	
03	63 mm	G* 1/2"	mm	172	189.5	184	212.5	170.5	199	65	85	104	59.5	27	1	kg
		NPTF 1/2"	(in)	6.772	7.461	7.244	8.366	6.713	7.835	2.559	3.346	4.094	2.343	1.063	2.2	(Lbs)
		G* 3/4"	mm	176	193.5	187	215.5	171	199.5	75	85	104	59.5	32	1.1	kg
		NPTF 3/4"	(in)	6.929	7.618	7.362	8.484	6.732	7.854	2.953	3.346	4.094	2.343	1.260	2.4	(Lbs)
		G* 1"	mm	185.5	203	199.5	228	179	207.5	90	85	104	59.5	41	1.5	kg
		NPTF 1"	(in)	7.303	7.992	7.854	8.976	7.047	8.169	3.543	3.346	4.094	2.343	1.614	3.3	(Lbs)
		G* 1 1/4"	mm	206	223.5	215.5	244	190.5	219	110	85	104	59.5	50	1.9	kg
		NPTF 1 1/4"	(in)	8.110	8.799	8.484	9.606	7.500	8.622	4.331	3.346	4.094	2.343	1.969	4.2	(Lbs)
		G* 1 1/2"	mm	206	223.5	222.5	251	192.5	221	120	85	104	59.5	60	2.5	kg
		NPTF 1 1/2"	(in)	8.110	8.799	8.760	9.882	7.579	8.701	4.724	3.346	4.094	2.343	2.362	5.5	(Lbs)
		G* 2"	mm	229	246.5	234.5	263	199.5	228	150	85	104	59.5	70	3.3	kg
		NPTF 2"	(in)	9.016	9.705	9.232	10.354	7.854	8.976	5.906	3.346	4.094	2.343	2.756	7.3	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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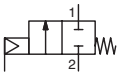
Dimensions mm (inches), **Weight** kg (Lbs)



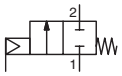
TYPE 03
63 mm actuator / Straight seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

Configurator - CAD Files

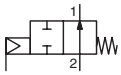
NC
entry
under the disc at 2

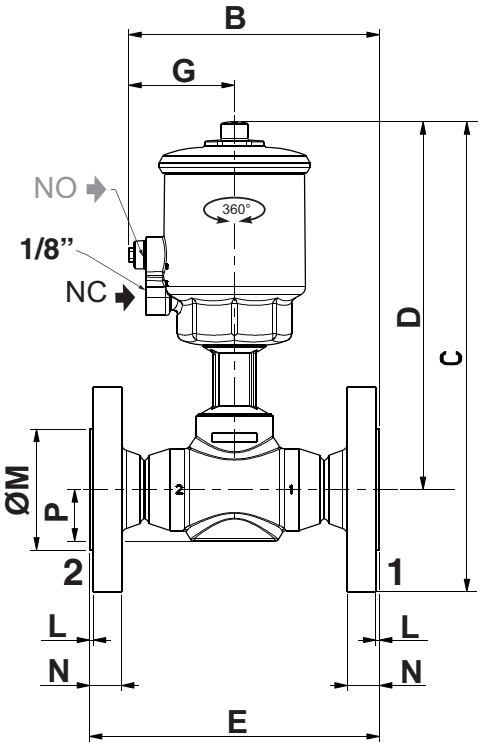


NC
entry
above the disc at 1



NO
entry
under the disc at 2





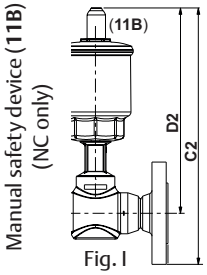


Fig. I

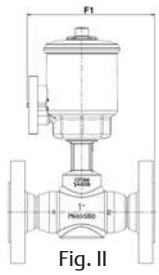


Fig. II

DN		C2		D2	F1
		ISO	ANSI		
15	mm	290.5	288	243	126.5
	(in)	11.437	11.339	9.567	4.980
20	mm	295.0	292.5	242	136.5
	(in)	11.614	11.516	9.528	5.374
25	mm	308	305.5	250.5	141.5
	(in)	12.126	12.028	9.862	5.571
32	mm	337.5	325	267.5	151.5
	(in)	13.287	12.795	10.531	5.965
40	mm	339.5	327	264.5	161.5
	(in)	13.366	12.874	10.413	6.358
50	mm	358	350.5	275.5	176.5
	(in)	14.094	13.799	10.846	6.949

Type	Actuator diameter	DN		ØA	B	C		D	E	ØF	G	ØH		ØJ	
						ISO	ANSI					ISO	ANSI	ISO	ANSI
03	63 mm	15	mm	17.3	124.5	247	244.5	199.5	130	85	59.5	95	90	65	60.3
			(in)	0.681	4.902	9.724	9.626	7.854	5.118	3.346	2.343	3.740	3.543	2.559	2.374
		20	mm	22.3	134.5	251	248.5	198.5	150	85	59.5	105	100	75	69.9
			(in)	0.878	5.295	9.882	9.783	7.815	5.906	3.346	2.343	4.134	3.937	2.953	2.752
		25	mm	28.5	139.5	264.5	262	207	160	85	59.5	115	110	85	79.4
			(in)	1.122	5.492	10.413	10.315	8.150	6.299	3.346	2.343	4.528	4.331	3.346	3.126
		32	mm	37.2	149.5	293.5	281	223.5	180	85	59.5	140	115	100	88.9
			(in)	1.465	5.886	11.555	11.063	8.799	7.087	3.346	2.343	5.512	4.528	3.937	3.500
		40	mm	43.1	159.5	296	283.5	221	200	85	59.5	150	125	110	98.4
			(in)	1.697	6.280	11.654	11.161	8.701	7.874	3.346	2.343	5.906	4.921	4.331	3.874
		50	mm	54.5	174.5	314	306.5	231.5	230	85	59.5	165	150	125	120.7
			(in)	2.146	6.870	12.362	12.067	9.114	9.055	3.346	2.343	6.496	5.906	4.921	4.752

DN		ØA	n x ØK		L		M		N		P	Weight [1]		
			ISO	ANSI	ISO	ANSI	ISO	ANSI	ISO	ANSI		ISO	ANSI	
15	mm	17.3	4 X 14	4 X 16	2	1.5	45	34.9	16	13.2	19.75	2.5	2.1	kg
	(in)	0.681	4 X 0.551	4 X 0.63	0.079	0.059	1.772	1.374	0.630	0.520	0.778	6.1	5.2	(Lbs)
20	mm	22.3	4 X 14	4 X 16	2	1.5	58	42.9	18	13.2	23	3.5	2.8	kg
	(in)	0.878	4 X 0.551	4 X 0.63	0.079	0.059	2.283	1.689	0.709	0.520	0.906	7.8	6.2	(Lbs)
25	mm	28.5	4 X 14	4 X 16	2	1.5	68	50.8	18	14.2	29	4.4	3.7	kg
	(in)	1.122	4 X 0.551	4 X 0.63	0.079	0.059	2.677	2.000	0.709	0.559	1.142	9.6	8.1	(Lbs)
32	mm	37.2	4 X 18	4 X 16	2	1.5	78	63.5	18	15.8	32.5	6.2	4.7	kg
	(in)	1.465	4 X 0.709	4 X 0.63	0.079	0.059	3.071	2.500	0.709	0.622	1.280	13.7	10.4	(Lbs)
40	mm	43.1	4 X 18	4 X 16	3	1.5	88	73	18	17.4	36.85	7.2	6.0	kg
	(in)	1.697	4 X 0.709	4 X 0.63	0.118	0.059	3.465	2.874	0.709	0.685	1.451	15.9	13.2	(Lbs)
50	mm	54.5	4 X 18	4 X 19.1	3	1.5	102	92.1	20	19	42.5	10.0	8.9	kg
	mm	2.146	4 X 0.709	4 X 0.752	0.118	0.059	4.016	3.626	0.787	0.748	1.673	21.9	19.6	(Lbs)

[1] Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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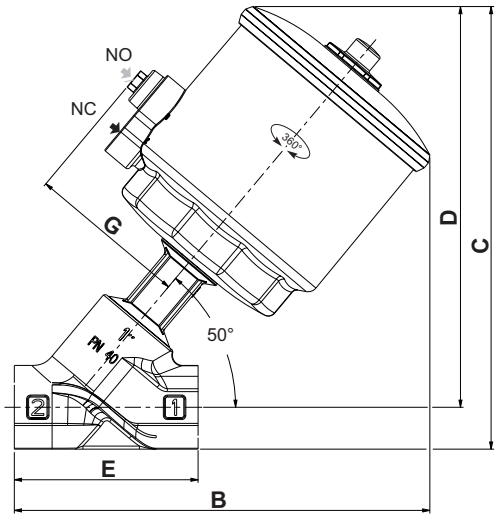
ASCO™ Pneumatic Angle and Straight Seat Valves

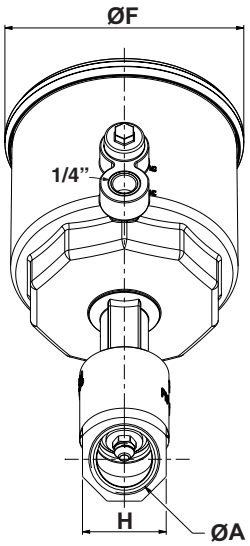
Dimensions mm (inches), **Weight** kg (Lbs)

Configurator - CAD Files

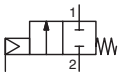


TYPE 04
90 mm actuator / Angle seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

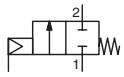




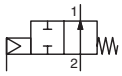
NC
entry under the disc at 2

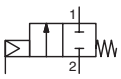


NC
entry above the disc at 1

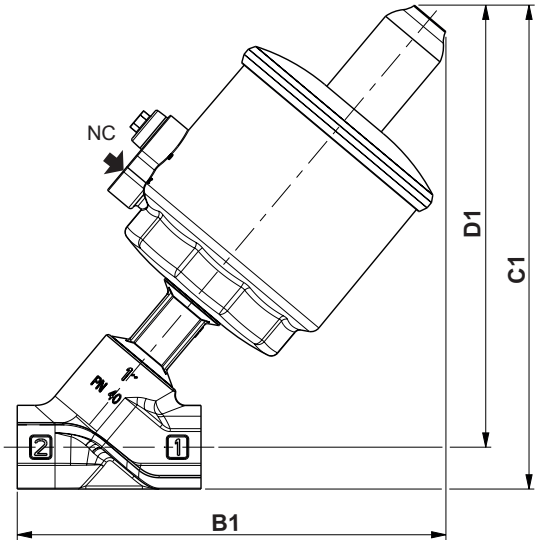


NO
entry under the disc at 2

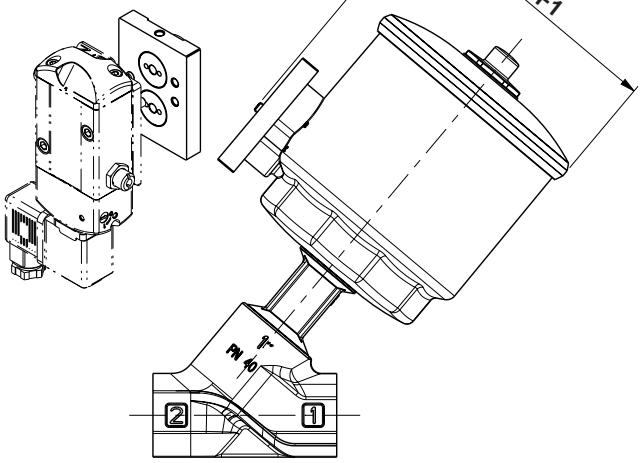




Manual safety device (**11B**)
(NC only)



NAMUR plate
(NC / NO)



Type	Actuator diameter	ØA		B	B1	C	C1	D	D1	E	ØF	F1	G	H	Weight (1)	
04	90 mm	G* 1"	mm	203.5	210	217	237	196.5	216.5	90	117	137	78.5	41	2.1	kg
		NPTF 1"	(in)	8.012	8.268	8.543	9.331	7.736	8.524	3.543	4.606	5.394	3.091	1.614	4.6	(Lbs)
		G* 1 1/4"	mm	224.5	231	233	233	253	228	110	117	137	78.5	50	2.5	kg
		NPTF 1 1/4"	(in)	8.839	9.094	9.173	9.961	8.189	8.976	4.331	4.606	5.394	3.091	1.969	5.5	(Lbs)
		G* 1 1/2"	mm	224	230.5	240	260	210	230	120	117	137	78.5	60	3.1	kg
		NPTF 1 1/2"	(in)	8.819	9.075	9.449	10.236	8.268	9.055	4.724	4.606	5.394	3.091	2.362	6.8	(Lbs)
		G* 2"	mm	247	253.5	251.5	271.5	216.5	236.5	150	117	137	78.5	70	3.9	kg
		NPTF 2"	(in)	9.724	9.980	9.902	10.689	8.524	9.311	5.906	4.606	5.394	3.091	2.756	8.6	(Lbs)
		G* 2 1/2"	mm	276	282.5	273	293	229.5	249.5	190	117	137	78.5	87	6.0	kg
		NPTF 2 1/2"	(in)	10.866	11.122	10.748	11.535	9.035	9.823	7.480	4.606	5.394	3.091	3.425	13.2	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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Dimensions mm (inches), **Weight** kg (Lbs)

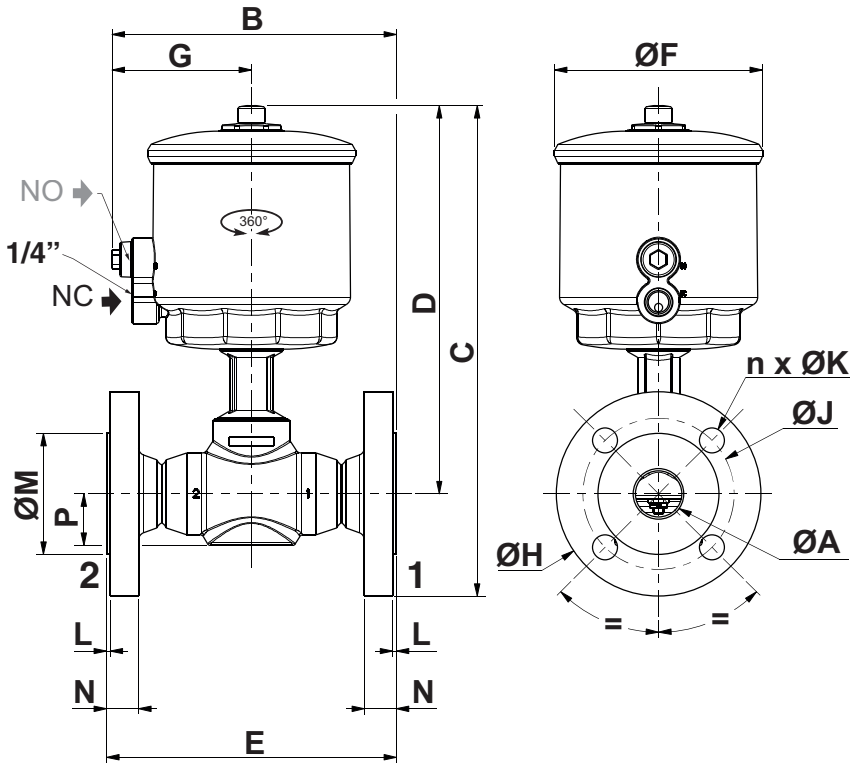
Configurator - CAD Files

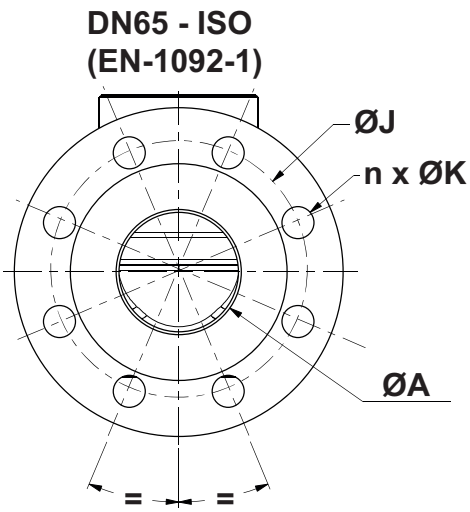


TYPE 04
90 mm actuator / Straight seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

For C2/D2/F1 references, see Fig. I (options 11B) and Fig. II (NAMUR) on page 20)

DN		C2		D2	F1
		ISO	ANSI		
25	mm	319.5	317	262	158.5
	(in)	12.579	12.480	10.315	6.240
32	mm	349.0	336.5	279	168.5
	(in)	13.740	13.248	10.984	6.634
40	mm	351.5	339	276.5	178.5
	(in)	13.839	13.346	10.886	7.028
50	mm	369.5	362	287	193.5
	(in)	14.547	14.252	11.299	7.618
65	mm	404.5	402	312	223.5
	(in)	15.925	15.827	12.283	8.799





Type	Actuator diameter	DN		ØA	B	C		D	E	ØF	G	ØH		ØJ	
						ISO	ANSI					ISO	ANSI	ISO	ANSI
04	90 mm	25	mm	28.5	158.5	276	273.5	218.5	160	117	78.5	115	110	85	79.4
			(in)	1.122	6.240	10.866	10.768	8.602	6.299	4.606	3.091	4.528	4.331	3.346	3.126
		32	mm	37.2	168.5	305.5	293	235.5	180	117	78.5	140	115	100	88.9
			(in)	1.465	6.634	12.028	11.535	9.272	7.087	4.606	3.091	5.512	4.528	3.937	3.500
		40	mm	43.1	178.5	307.5	295	232.5	200	117	78.5	150	125	110	98.4
			(in)	1.697	7.028	12.106	11.614	9.154	7.874	4.606	3.091	5.906	4.921	4.331	3.874
		50	mm	54.5	193.5	326	318.5	243.5	230	117	78.5	165	150	125	120.7
			(in)	2.146	7.618	12.835	12.539	9.587	9.055	4.606	3.091	6.496	5.906	4.921	4.752
		65	mm	70.3	223.5	360.5	358	268	290	117	78.5	185	180	145	139.7
			(in)	2.768	8.799	14.193	14.094	10.551	11.417	4.606	3.091	7.283	7.087	5.709	5.500

DN		ØA	n x ØK		L		M		N		P	Weight (1)		
			ISO	ANSI	ISO	ANSI	ISO	ANSI	ISO	ANSI		ISO	ANSI	
25	mm	28.5	4 X 14	4 X 16	2	1.5	68	50.8	18	14.2	29	4.9	4.2	kg
	(in)	1.122	4 X 0.551	4 X 0.63	0.079	0.059	2.677	2.000	0.709	0.559	1.142	10.9	9.3	(Lbs)
32	mm	37.2	4 X 18	4 X 16	2	1.5	78	63.5	18	15.8	32.5	6.8	5.3	kg
	(in)	1.465	4 X 0.709	4 X 0.63	0.079	0.059	3.071	2.500	0.709	0.622	1.280	15.0	11.8	(Lbs)
40	mm	43.1	4 X 18	4 X 16	3	1.5	88	73	18	17.4	36.85	7.8	6.6	kg
	(in)	1.697	4 X 0.709	4 X 0.63	0.118	0.059	3.465	2.874	0.709	0.685	1.451	17.3	14.5	(Lbs)
50	mm	54.5	4 X 18	4 X 19.1	3	1.5	102	92.1	20	19	42.5	10.6	9.5	kg
	(in)	2.146	4 X 0.709	4 X 0.752	0.118	0.059	4.016	3.626	0.787	0.748	1.673	23.3	21.0	(Lbs)
65	mm	70.3	8 X 18	4 X 19.1	3	1.5	122	104.8	22	22.2	59	15.3	15.4	kg
	(in)	2.768	8 X 0.709	4 X 0.752	0.118	0.059	4.803	4.126	0.866	0.874	2.323	33.7	33.9	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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ASCO™ Pneumatic Angle and Straight Seat Valves

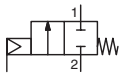
Dimensions mm (inches), **Weight** kg (Lbs)

Configurator - CAD Files

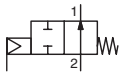


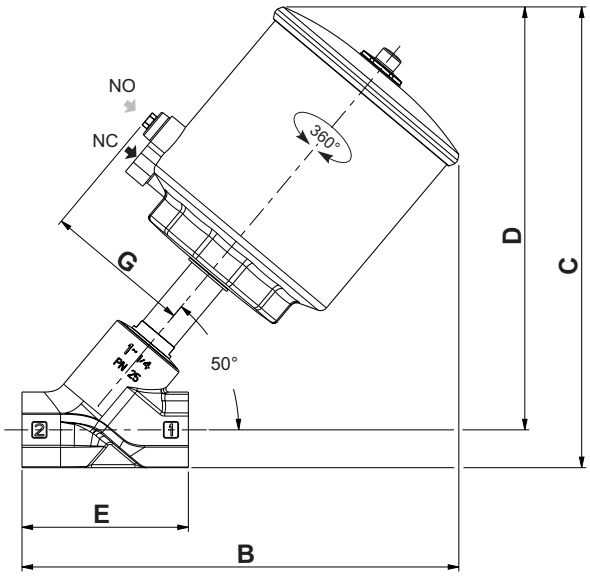
TYPE 05
125 mm actuator/ Angle seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

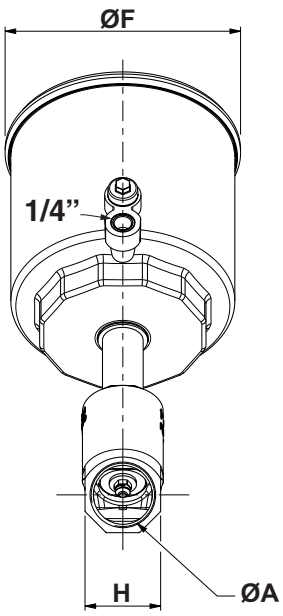
NC
entry under the disc at 2

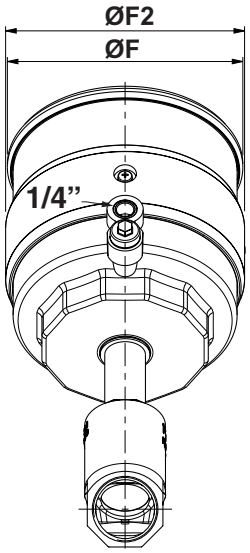


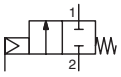
NO
entry under the disc at 2



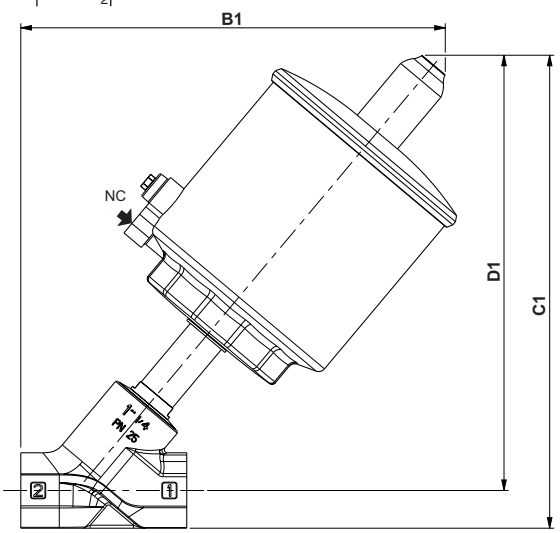




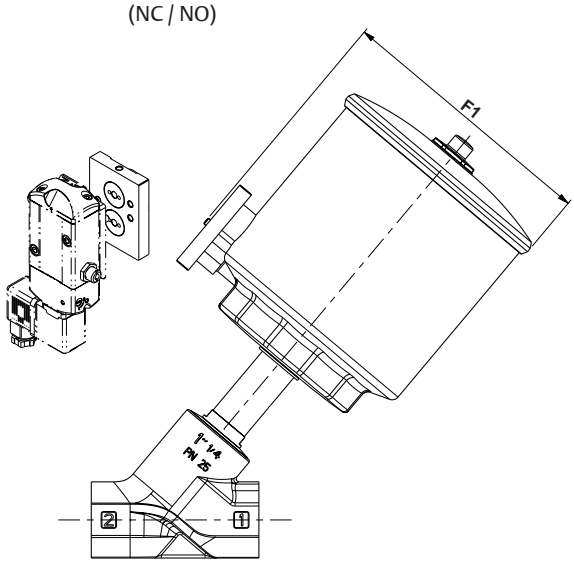




Manual safety device (**11B**)
(NC only)



NAMUR plate
(NC / NO)



Type	Actuator diameter	ØA		B	B1	C	C1	D	D1	E	ØF (NC/NO)	F1	ØF2 (NO)	G	H	Weight (1)	
05	125 mm	G* 1 1/4”	mm	289	281.5	305	313.5	280	288.5	110	156	175	158	97	50	5.5	kg
		NPTF 1 1/4”	(in)	11.378	11.083	12.008	12.343	11.024	11.358	4.331	6.142	6.890	6.220	3.819	1.969	12.1	(Lbs)
		G* 1 1/2”	mm	290	282.5	313	321.5	283	291.5	120	156	175	158	97	60	6 3	kg
		NPTF 1 1/2”	(in)	11.417	11.122	12.323	12.657	11.142	11.476	4.724	6.142	6.890	6.220	3.819	2.362	13.9	(Lbs)
		G* 2”	mm	314.5	307	327	335.5	292	300.5	150	156	175	158	97	70	7.2	kg
		NPTF 2”	(in)	12.382	12.087	12.874	13.209	11.496	11.831	5.906	6.142	6.890	6.220	3.819	2.756	15.9	(Lbs)
		G* 2 1/2”	mm	346	338.5	351	359.5	307.5	316	190	156	175	158	97	70	7.2	kg
		NPTF 2 1/2”	(in)	13.622	13.327	13.819	14.154	12.106	12.441	7.480	6.142	6.890	6.220	3.819	3.425	20.9	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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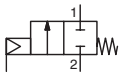
Dimensions mm (inches), **Weight** kg (Lbs)



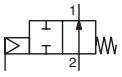
TYPE 05
125 mm actuator/ Straight seat valve / Stainless steel body
Fluid entry:
under the disc at 2
above the disc at 1

Configurator - CAD Files

NC
entry under the disc at 2

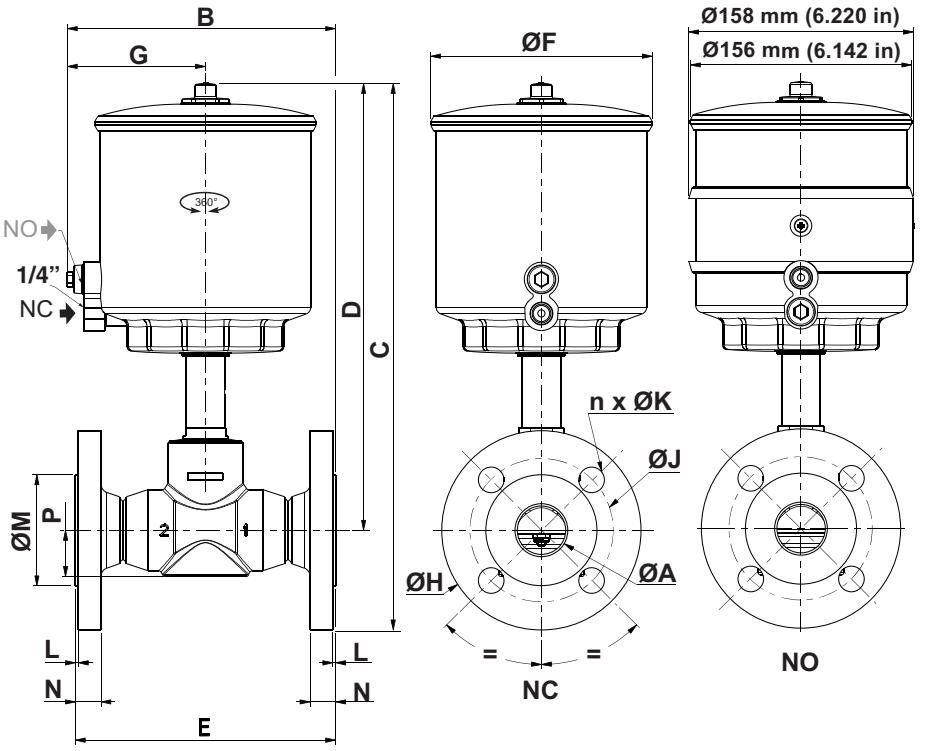


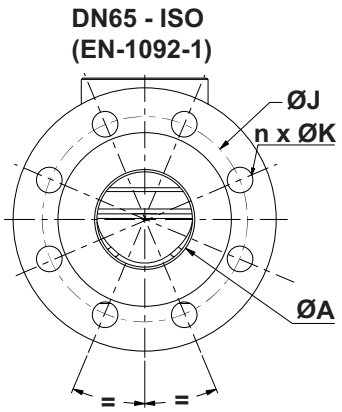
NO
entry under the disc at 2



For C2/D2/F1 references, see Fig. I (options 11B) and Fig. II (NAMUR) on page 20)

DN		C2 ISO	C2 ANSI	D2	F1
32	mm	428	415.5	358	187
	(in)	16.850	16.358	14.094	7.362
40	mm	432	419.5	357	197
	(in)	17.008	16.516	14.055	7.756
50	mm	452.5	445	370	212
	(in)	17.815	17.520	14.567	8.346
65	mm	491	489	399	242
	(in)	19.331	19.252	15.709	9.528





Type	Actuator diameter	DN		ØA	B	C ISO	C ANSI	D	E	ØF	G	ØH ISO	ØH ANSI	ØJ ISO	ØJ ANSI
05	125 mm	32	mm	37.2	187	384	371.5	314	180	156	97	140	115	100	88.9
			(in)	1.465	7.362	15.118	14.626	12.362	7.087	6.142	3.819	5.512	4.528	3.937	3.500
		40	mm	43.1	197	388.5	376	313.5	200	156	97	150	125	110	98.4
			(in)	1.697	7.756	15.295	14.803	12.343	7.874	6.142	3.819	5.906	4.921	4.331	3.874
		50	mm	54.5	212	408.5	401	326	230	156	97	165	150	125	120.7
			(in)	2.146	7.618	12.835	12.539	9.587	9.055	4.606	3.091	6.496	5.906	4.921	4.752
		65	mm	70.3	242	447.5	445	355	290	156	97	185	180	145	139.7
			(in)	2.768	9.528	17.618	17.520	13.976	11.417	6.142	3.819	7.283	7.087	5.709	5.500

DN		ØA	n x ØK ISO	n x ØK ANSI	L ISO	L ANSI	M ISO	M ANSI	N ISO	N ANSI	P	Weight (1) ISO	Weight (1) ANSI	
32	mm	37.2	4 X 18	4 X 16	2	1.5	78	63.5	18	15.8	32.5	9.8	8.3	kg
	(in)	1.465	4 X 0.709	4 X 0.63	0.079	0.059	3.071	2.500	0.709	0.622	1.280	21.6	18.4	(Lbs)
40	mm	43.1	4 X 18	4 X 16	3	1.5	88	73	18	17.4	36.85	11.0	9.8	kg
	(in)	1.697	4 X 0.709	4 X 0.63	0.118	0.059	3.465	2.874	0.709	0.685	1.451	24.3	21.6	(Lbs)
50	mm	54.5	4 X 18	4 X 19.1	3	1.5	102	92.1	20	19	42.5	13.9	12.9	kg
	(in)	2.146	4 X 0.709	4 X 0.752	0.118	0.059	4.016	3.626	0.787	0.748	1.673	30.6	28.4	(Lbs)
65	mm	70.3	8 X 18	4 X 19.1	3	1.5	122	104.8	22	22.2	59	18.8	18.9	kg
	(in)	2.768	8 X 0.709	4 X 0.752	0.118	0.059	4.803	4.126	0.866	0.874	2.323	41.4	41.6	(Lbs)

(1) Weight of valve without pilot.
For solenoid pilot valve. see dedicated catalog pages.

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