

FEATURES

- Valve with clamp type connection to ISO 2852 for quick disconnection, a system commonly used in the food processing industry or with butt welding connection to ISO 6761 for stainless steel pipe to ISO 1127
- CLAMP valve body pickled in nitric/fluoric acid bath (NET-INOX passivation treatment)
- High flow due to angled seat design
- Anti-waterhammer design (fluid entry under the disc)
- Vacuum operation up to 10^{-2} mbar
- Wide range of piston-type operators (32 - 50- 63 - 90 - 125 mm dia.) rotatable through 360° , for maximum performance at different minimum pilot pressures
- High performance, maintenance-free stuffing box
- The valves satisfy Pressure Equipment Directive 97/23/EC, category 1 (DN > 25) or article 3.3 (DN ≤ 25)

GENERAL

Differential pressure	See «SPECIFICATIONS» [1 bar = 100 kPa]
Maximum allowable pressure	16 bar
Ambient temperature range	-10°C to +60°C
Maximum viscosity	600 cSt (mm ² /s)
Pilot fluid	Filtered air or water ⁽¹⁾
Max. pilot pressure	10 bar
Min. pilot pressure	See below and following page
Pilot fluid temperature	-10°C to +60°C
Response time	See page V402-7

fluids (*)	temperature range	disc seal (*)
DN ≤ 50 : air et gaz groupes 1 & 2 DN 65: air and gas group 2 all DN: water, oil, liquids groups 1 & 2 and steam	- 10°C to + 184°C	PTFE

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

	Stainless steel body	All AISI 316 L
Valve body		
CLAMP connection	AISI 316L + NET-INOX treatment	AISI 316L + Traitement NET-INOX
Butt welding connection	AISI 316L	AISI 316L
Stuffing box housing	AISI 316L	AISI 316L
Stem	Stainless steel	AISI 316L
Disc	Stainless steel	AISI 316L
Stuffing box packing	PTFE chevrons	PTFE chevrons
Wiper seal	FPM	FPM
Disc seal	PTFE	PTFE
Valve body seal	PTFE	PTFE

OTHER MATERIALS

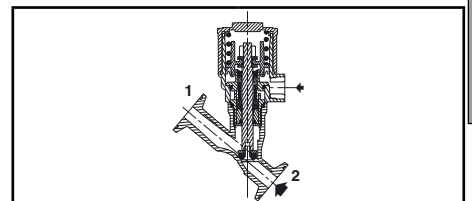
Operator	Glass fibre filled PA
Optical position indicator	PA 12, supplied standard on valves with 63, 90 and 125 mm operators

⁽¹⁾ For dia. 32, 50, 63, 90 and 125 mm operators: At service fluid temperatures inside the valve body above 100°C, it is prohibited to pilot the valve with water.

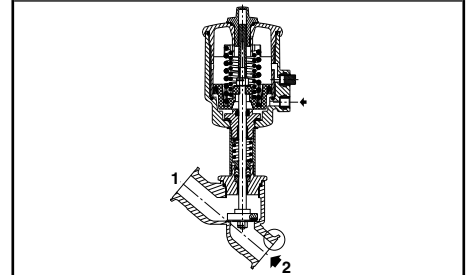
SPECIFICATIONS

DN	O.D. of stub (clamp)	O.D. of stub (butt)	flow coefficient Kv		pilot pressure (bar)		operating pressure differential (bar)				operator diameter (mm)	catalogue number							
							min.	max.				clamp connection		butt welding connection					
								air, inert gas, aggressive fluids(*)	water, oil, liquids, aggressive liquids(*)	steam (*) (≤184°C)		stainless steel	all AISI 316L	stainless steel	all AISI 316L				
10	34	17,2	2,8	47	4	10	0	16	16	10	32	S290A800	S290A868	S290A802	S290A870				
								4,1	68	12		10	S290A804	S290A872	S290A806	S290A874			
			15	34	21,3	4,9	82	4	10	0	16	16	10	50	S290A408	S290A426	S290A417	S290A432	
											2,5	10	16		10	S290B137	S290B174	S290B205	S290B234
20	50,5	26,9	6,5	108	4	10	0	5	5	5	63	S290B136	S290B173	S290B204	S290B233				
								6	6	6		S290A808	S290A876	S290A810	S290A878				
								10	10	10		50	S290A409	S290A427	S290A418	S290A433			
								16	16	10			S290B140	S290B177	S290B208	S290B237			
								12	12	10		63	S290B139	S290B176	S290B207	S290B236			
								1,5	10	4			S290B138	S290B175	S290B206	S290B235			
			25	50,5	33,7	12,8	213	4	10	0	6	6	6	50	S290A410	S290A428	S290A419	S290A434	
											10	10	10		S290B145	S290B182	S290B211	S290B240	
											16	16	10		90	S290B146	S290B183	S290B212	S290B241
											6	6	6			S290B143	S290B180	S290B210	S290B239
											12	12	10		90	S290B144	S290B181	-	-
											3	3	3			S290B141	S290B178	S290B209	S290B238
5	5	5	90	S290B142	S290B179	-	-												

NC - Normally closed, entry under the disc ⁽¹⁾

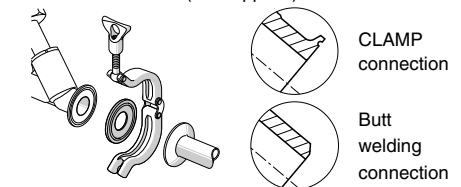


NC function, entry under the disc, 32 and 50 mm operators



NC function, entry under the disc, 63, 90 and 125 mm operators

CLAMP connection (not supplied)



CLAMP connection

Butt welding connection

SPECIFICATIONS

DN	O.D. of stub (clamp) (mm)	O.D. of stub (butt) (mm)	flow coefficient Kv (m ³ /h) (l/min)		pilot pressure (bar) min. max.		operating pressure differential (bar)			operator diameter (mm)	catalogue number									
							min.	max.			clamp connection		butt welding connection							
								air, inert gas, aggressive fluids(*)	water, oil, liquids, aggressive liquids(*)		steam (*) (≤184°C)	stainless steel	all AISI 316L	stainless steel	all AISI 316L					
NC - Normally closed, entry under the disc ⁽¹⁾																				
32	64	42,4	27	450	4	10	0	6	6	6	63	S290A151	S290A188	S290A215	S290A244					
								12	12	10	90	S290A152	S290A189	S290A216	S290A245					
								3	3	3	63	S290A149	S290A186	S290A214	S290A243					
					2,5	10	0	7	7	7	90	S290A150	S290A187	-	-					
								1,5	1,5	1,5	63	S290A147	S290A184	S290A213	S290A242					
								3	3	3	90	S290A148	S290A185	-	-					
			29	483	4	10	0	16	16	10	125	S290A654	S290A662	S290A670	S290A678					
								2,5	2,5	2,5	125	S290A653	S290A661	-	-					
								1,5	1,5	1,5	125	S290A652	S290A660	-	-					
40	64	48,3	45	750	4	10	0	4	4	4	63	S290A155	S290A192	S290A217	S290A246					
								8	8	8	90	S290A156	S290A193	S290A218	S290A247					
								2,5	2,5	2,5	90	S290A154	S290A191	-	-					
					1,5	10	0	3	3	3	90	S290A153	S290A190	-	-					
								4	4	4	125	S290A521	S290A547	S290A573	S290A599					
								2,5	2,5	2,5	125	S290A520	S290A546	-	-					
			48	800	4	10	0	4	4	4	125	S290A519	S290A545	-	-					
								2,5	2,5	2,5	125	S290A520	S290A546	-	-					
								1,5	1,5	1,5	125	S290A519	S290A545	-	-					
50	77,5	60,3	59	983	4	10	0	2,5	2,5	2,5	63	S290A687	S290A749	S290A719	S290A773					
								6	6	6	90	S290A688	S290A750	S290A720	S290A774					
								2,5	2,5	2,5	90	S290A685	S290A747	-	-					
					1,5	10	0	1	1	1	90	S290A683	S290A745	-	-					
								4	4	4	125	S290A689	S290A751	S290A721	S290A775					
								2,5	2,5	2,5	125	S290A686	S290A748	-	-					
			66	1100	1,5	10	0	2	2	2	125	S290A684	S290A746	-	-					
								94	1567	4	10	0	2	2	2	90	S290A691	S290A753	S290A722	S290A776
								111	1850	4	10	0	6	6	6	125	S290A690	S290A752	-	-
					2,5	10	0	1	1	1	125	S290A692	S290A754	S290A723	S290A777					
NO - Normally open, entry under the disc																				
10	34	17,2	2,8	47	IX (*)	10	0	16	16	10	32	S290A812	S290A880	S290A814	S290A882					
								4,1	68	IX (*)	10	0	16	16	10	32	S290A816	S290A884	S290A818	S290A886
15	34	21,3	4,9	82	I (*)	10	0	16	16	10	50	S290A411	S290A429	S290A420	S290A435					
								II (*)	10	0	16	16	10	63	S290B161	S290B198	S290B221	S290B250		
20	50,5	26,9	6,5	108	IX (*)	10	0	16	16	10	32	S290A820	S290A888	S290A822	S290A890					
								I (*)	10	0	16	16	10	50	S290A412	S290A430	S290A421	S290A436		
25	50,5	33,7	12,8	213	I (*)	10	0	16	16	10	50	S290A413	S290A431	S290A422	S290A437					
								16,5	275	II (*)	10	0	16	16	10	63	S290B163	S290B200	S290B223	S290B252
32	64	42,4	27	450	II (*)	10	0	16	16	10	63	S290A164	S290A201	S290A224	S290A253					
40	64	48,3	45	750	II (*)	10	0	11	11	10	63	S290A165	S290A202	S290A225	S290A254					
50	77,5	60,3	59	983	II (*)	10	0	13	13	10	63	S290A693	S290A755	S290A724	S290A778					
								16	16	10	90	S290A694	S290A756	S290A725	S290A779					
65	91	76,1	94	1567	III (*)	10	0	7	7	7	90	S290A695	S290A757	S290A726	S290A780					
								111	1850	IV (*)	10	0	16	16	10	125	S290A696	S290A758	S290A727	S290A781
NC - Normally closed, entry above the disc (version recommended for rapid-cycling steam applications)																				
10	34	17,2	2,8	47	X (*)	10	0	10	-	10	32	S290A824	-	S290A826	-					
								4,1	68	X (*)	10	0	10	-	10	32	S290A828	-	S290A830	-
15	34	21,3	4,9	82	V (*)	10	0	10	-	10	50	S290A414	-	S290A423	-					
								VI (*)	10	0	10	-	10	63	S290B167	-	S290B227	-		
20	50,5	26,9	6,5	108	X (*)	10	0	10	-	10	32	S290A832	-	S290A834	-					
								V (*)	10	0	10	-	10	50	S290A415	-	S290A424	-		
25	50,5	33,7	12,8	213	V (*)	10	0	10	-	10	50	S290A416	-	S290A425	-					
								16,5	275	VI (*)	10	0	10	-	10	63	S290B169	-	S290B229	-
32	64	42,4	27	450	VI (*)	10	0	10	-	10	63	S290A170	-	S290A230	-					
								VII (*)	10	0	10	-	10	90	S290A256	-	S290A258	-		
40	64	48,3	45	750	VI (*)	10	0	10	-	10	63	S290A171	-	S290A231	-					
								VII (*)	10	0	10	-	10	90	S290A257	-	S290A259	-		
50	77,5	60,3	59	983	VI (*)	10	0	9	-	9	63	S290A697	-	S290A728	-					
								VII (*)	10	0	10	-	10	63	S290A698	-	S290A729	-		
65	91	76,1	94	1567	VII (*)	10	0	10	-	10	90	S290A699	-	S290A730	-					
								111	1850	VIII (*)	10	0	10	-	10	125	S290A700	-	S290A731	-

(*) Minimum pilot pressure varies with differential pressure, see page V402-7.

⁽¹⁾ Calculation of the minimum pilot pressure at a ΔP of max. 10 bar with allowable backpressure (backpressure not recommended with liquids as waterhammer may occur).

- 32 and 50 mm operators, 4 bar minimum pilot pressure version: add 2 bar to the minimum pilot pressure of chart V or X, page V402-7.

- 63, 90 and 125 mm operators, 4 bar minimum pilot pressure version: add 1,5 bar to the minimum pilot pressure of chart VI, VII or VIII, page V402-7.

OPTIONS AND ACCESSORIES (see page V435/V436)

- Signaling box or compact signaling unit
- Stroke limiter for opening
- Manual safety device
- Optical position indicator on 32-50 mm operators, NC function
- Adapter plate for NAMUR pad mounting pilot (63-90-125 mm operators only)
- Oxygen service (except DN 65), pressure limited to 15 bar, temperature limited to + 60°C
- Vacuum applications up to 1,33 10⁻³ mbar
- NET-INOX passivation treatment on valve body with butt welding connection
- ATEX 94/9/EC versions for potentially explosive atmospheres

INSTALLATION

- The valves can be mounted in any position without affecting operation
- On clamp connection version: The connection stubs comply with ISO 2852.
The strength of the quick-disconnect connection clamp must be compatible with the maximum pressure applied to the valve
- On butt welding version: Compatible with ASTM 1, 2 and 3 oils
Butt welding connections comply with ISO 6761 and are compatible with pipe to ISO 1127
- Installation/maintenance instructions are included with each valve

SPARE PARTS KITS

DN	spare parts kit no.	
	Ø 32 mm	Ø 50-63-90-125 mm
10	C140100	-
15	C140101	C131204 ⁽¹⁾
20	C140102	C131205 ⁽¹⁾
25	-	C131206 ⁽¹⁾
32	-	C131207 ⁽¹⁾
40	-	C131208 ⁽¹⁾
50	-	C131209 ⁽¹⁾
65	-	C131622 ⁽¹⁾

⁽¹⁾ Standard suffix VM also applies to kits (see V435).

- Not available

ORDERING EXAMPLES:

S	290	A	804	
S	290	B	137	SM2
S	290	A	801	SU
S	290	A	170	

pipe thread _____
basic number _____ suffix _____

ORDERING EXAMPLES KITS:

C140100	
C140205	
C140205	VM

basic number _____ suffix _____

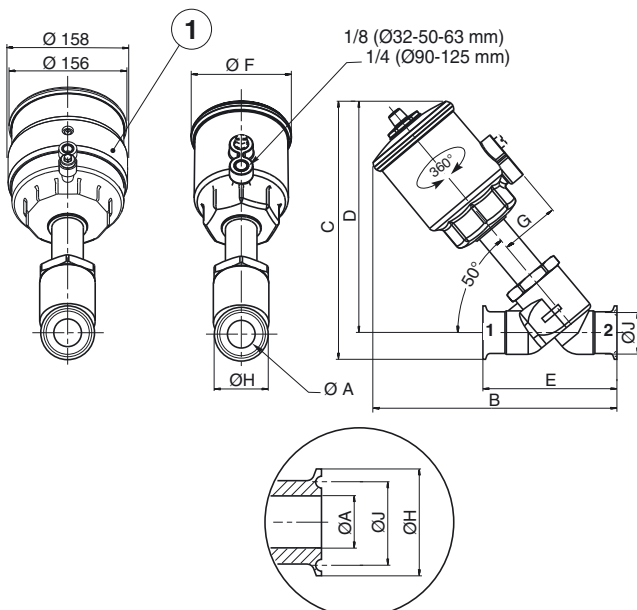
DIMENSIONS (mm), WEIGHT



TYPE 01-02-03-04-05

32, 50, 63, 90 and 125 mm operators

Fluid entry:
under the disc at 2
above the disc at 1



type	operator diameter	DN	ØA	B	C	D	E	ØF	G	ØH	ØJ	weight ⁽¹⁾
01	32	10	10	102,5	104,7	87,7	80	43,5	27	34	27,5	0,4
		15	16	110,7	105,8	88,8	101,6	43,5	27	34	27,5	0,43
		20	20	111,6	113,6	88,4	114	43,5	27	50,5	43,5	0,59
02	50	15	15,5	153	158,5	141	102	69	43	34	27,5	0,9
		20	21,5	158	168	143	114	69	43	50,5	43,5	1
		25	26	167	170,5	145	129	69	43	50,5	43,5	1,4
03	63	15	15,5	182	186	169	102	85	50,5	34	27,5	1,2
		20	21,5	184	195	170	114	85	50,5	50,5	43,5	1,3
		25	26	191	197	172	129	85	50,5	50,5	43,5	1,7
		32	35	226	236	204	140	85	50,5	64	56,5	2,1
		40	41	235	247	215	159	85	50,5	64	56,5	2,8
04	90	50	50	257	263	224	180	85	50,5	77,5	70,5	3,7
		25	26	209	214	189	129	118	67	50,5	43,5	2,2
		32	35	245	253	221	140	118	67	64	56,5	2,7
		40	41	254	264	232	159	118	67	64	56,5	3,4
		50	50	275	280	241	180	118	67	77,5	70,5	4,2
05	125	65	65	302	302,5	257	205	118	67	91	83,5	6,2
		32	35	291	307	273	140	156	86	64	56,5	5,2
		40	41	301	316	284	159	156	86	64	56,5	5,9
		50	50	322,5	332	293	180	156	86	77,5	70,5	6,7
		65	65	349,5	353,5	308	205	156	86	91	83,5	8,8

① Operator dia. 125 mm, NO function

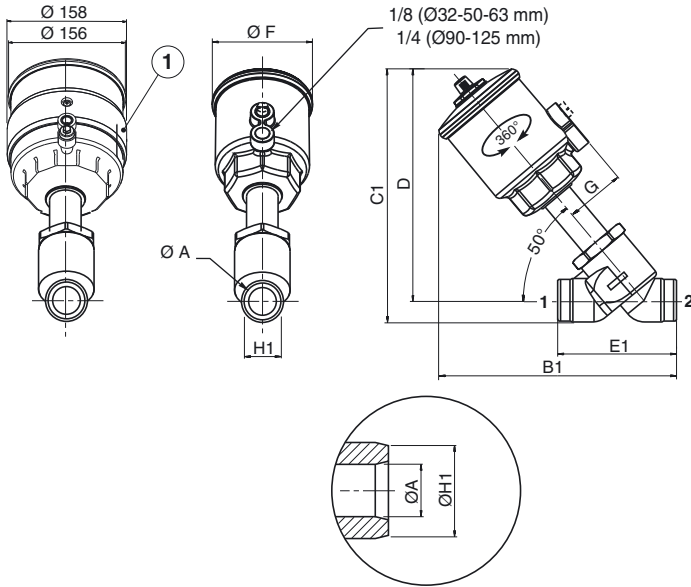
⁽¹⁾ Weight of valve without pilot. Add 0,2 for dia. 125 mm operator NO.

Solenoid pilot valves: see V439 (63 mm operator) / V444 (90 and 125 mm operators).

DIMENSIONS (mm), WEIGHT



TYPE 01-02-03-04-05
 32, 50, 63, 90 and 125 mm operators
 Fluid entry:
 under the disc at 2
 above the disc at 1



type	operator diameter	DN	ØA	B1	C1	D	E1	ØF	G	ØH1	weight ⁽¹⁾
01	32	10	10	102,5	96,9	87,7	80	43,5	27	17,2	0,37
		15	16	101,9	100,5	88,8	84	43,5	27	21,3	0,4
		20	20	103,6	102,4	88,4	98	43,5	27	26,9	0,45
02	50	15	15,5	144	152	141	84	69	43	21,3	0,9
		20	21,5	150	157	143	98	69	43	26,9	1
		25	26	159	162	145	113	69	43	33,7	1,3
03	63	15	15,5	172	181	169	84	85	50,5	21,3	1,2
		20	21,5	175	184	170	98	85	50,5	26,9	1,3
		25	26	183	190	172	113	85	50,5	33,7	1,6
		32	35	218	226	204	124	85	50,5	42,4	2
		40	41	227	240	215	143	85	50,5	48,3	2,7
04	90	50	50	249	254	224	164	85	50,5	60,3	3,6
		25	26	201	207	189	113	118	67	33,7	2,1
		32	35	237	243	221	124	118	67	42,4	2,6
		40	41	246	257	232	143	118	67	48,3	3,3
		50	50	267	271	241	164	118	67	60,3	4,1
05	125	65	65	294	295	257	189	118	67	76,1	6,1
		32	35	283	295	273	124	156	86	42,4	5,1
		40	41	294	308	284	143	156	86	48,3	5,8
		50	50	314,5	323	293	164	156	86	60,3	6,7
		65	65	341,5	346	308	189	156	86	76,1	8,7

① Operator dia. 125 mm, NO function

⁽¹⁾ Weight of valve without pilot. Add 0,2 for dia. 125 mm operator NO.
 Solenoid pilot valves: see V439 (63 mm operator) / V444 (90 and 125 mm operators).

