ASV : 0111/E1

ANGLE

ANGLE SEAT VALVE

VALVE

ROTEX

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ANGLE SEAT VALVE

ASV : 0111/E1

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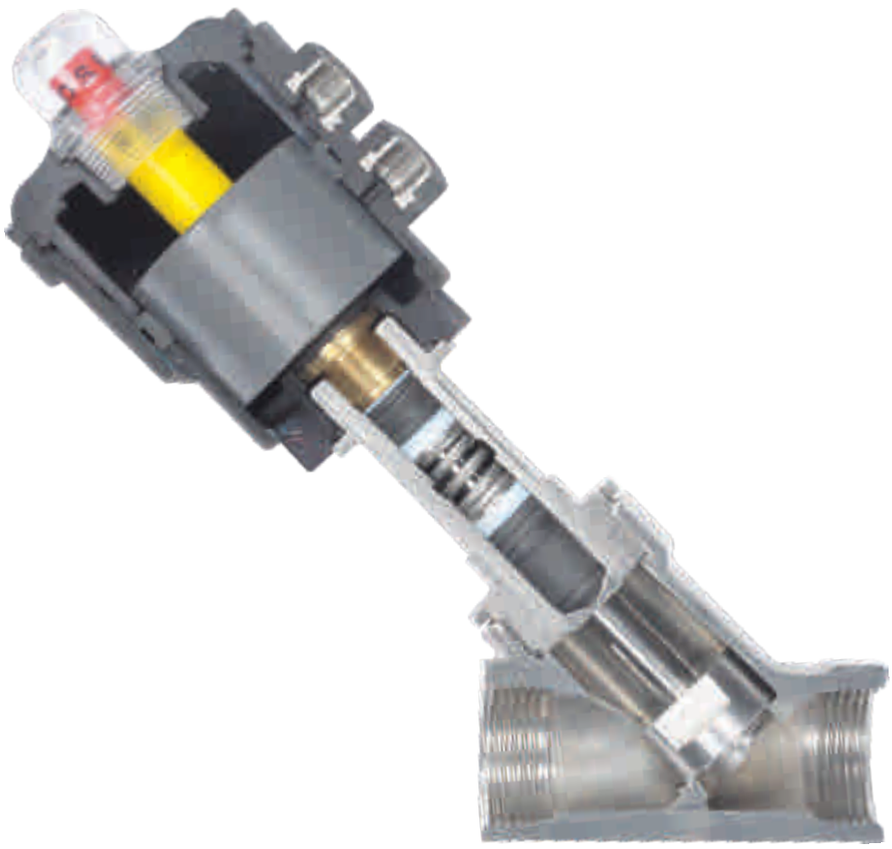
ANGLE SEAT VALVE - DOUBLE ACTING

FEATURES

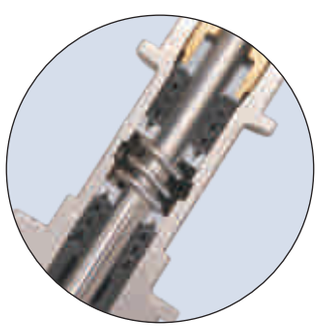
- NC/ NO/ Bi-Directional
- Can be easily converted from NC to NO/ Double Acting to Single Acting
- Operator with threaded/ NAMUR ports
- Lubricated pilot air not necessary
- Ideally suited for vacuum service
- Fast acting up to 1000 cycles/ hour
- Wetted parts : CF3M (SS 316L cast), SS 316L
- Life > 10 million cycles
- Modular design



- Floating plug for longer life

- Smooth profile with lower bend for higher flow

- Burnished piston shaft and PTFE gland packing for lower friction, smoother operations and longer life



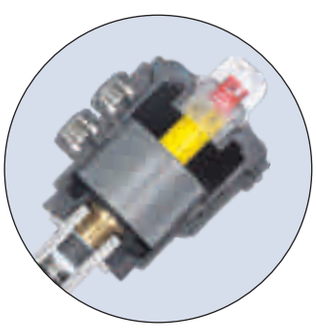
- Longer sleeve accommodating large number of gland packings for better leak tightness and longer life, avoiding metal to metal contacts

Specifications are subject to change without notice

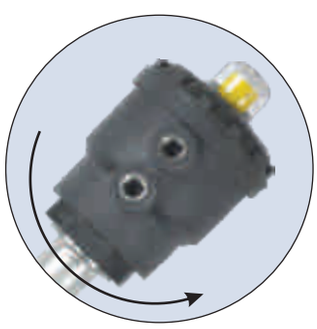
ANGLE SEAT VALVE - SINGLE ACTING

FEATURES

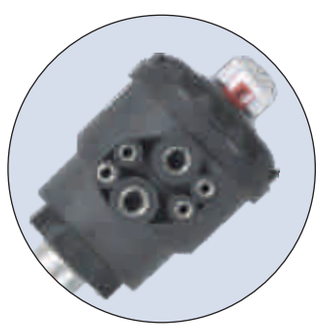
- NC/ NO/ Bi-Directional
- Can be easily converted from NC to NO/ Single Acting to Double Acting
- Operator with threaded/ NAMUR ports
- Lubricated pilot air not required
- Ideally suited for vacuum service
- Fast acting up to 500 cycles/ hour
- Wetted parts : CF3M (SS 316L cast), SS 316L
- Life > 10 million cycles
- Modular design



- Aluminium hard anodized piston



- 360° Rotatable operator
- NAMUR/ Threaded port operator
- Operator having threaded ports is ideally suited for area in which contamination due to exhaust air and sedimentation of particles in the operator crevices are not desired
- Corrosion resistive glass filled Nylon operator
- SS inserts for operator ports



- Open/ Closed indicator

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SPECIFICATION

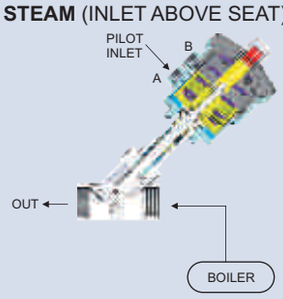
- Valve type : Angle Seated Valve
- Action : Normally Closed/ Normally Open/ Bi-Directional
- Operating Pressure : 0 - 16 bar/ 0 - 25 bar
- Size : 1/2” 3/4”, 1”, 11/4”, 11/2”, 2”, 21/2”, 3”
- Body, Sleeve material : CF3M (SS 316L Cast) (1.4435)
- Seat, Seal : PTFE, PEEK
- Shaft/ Seat Material : SS 316L (1.4404)
- Port Connection : Threaded/ Weld end/ Triclamp/ ANSI Flange/ Pipe weld
- Media : Steam, Air, Oil, Water, Fuel Gas and Liquid, Vacuum
- Fluid temperature : -10 °C to +180 °C
- Operator Material : Nylon Glass Filled
- Seal/ O Ring : Viton
- Pilot Pressure : 0.8 - 10 bar (Refer Pages 6 to 10)
- Ambient temperature : -10 °C to +60 °C
- Pilot Fluid : Air, Inert Gas filtered to 50 micron

APPLICATION

Air Drying Equipment, Autoclave, Bottling and Dispensing Equipment, Chemical and Petrochemical Industries, Coolant Control for Machine Tool, Fuel, Ink and Paint Dispensing, Industrial Compressor, Laundry Equipment, Nuclear Energy, Pollution Control Equipment, Process Control Application, Power Generation, Paper and Pulp Industries, PSA Plants, Pharmaceutical, Steam, Sterilizer, Textile Dyeing and Drying.

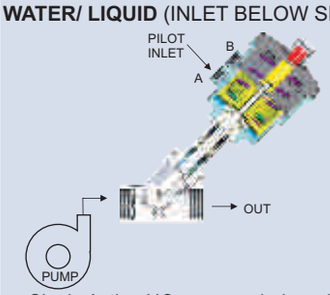
RECOMANDED : INSTALLATION

STEAM (INLET ABOVE SEAT)



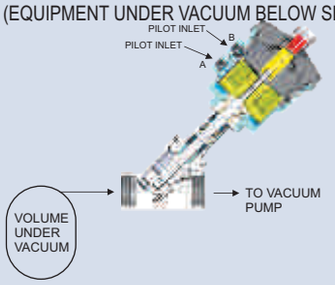
- Single Acting NC pressure above plug
- Single Acting NC Bi-Directional
- Double Acting NC/NO Bi-Directional
- **Type-F1, F5, F3, F4, F2**

WATER/ LIQUID (INLET BELOW SEAT)



- Single Acting NC pressure below plug
- Single Acting NO pressure below plug
- Single Acting NO Bi-Directional
- Double Acting NC/NO Bi-Directional
- **Type F3, F6, F4**

VACUUM
(EQUIPMENT UNDER VACUUM BELOW SEAT)



- Single Acting NC volume below plug
- Single Acting NC Bi-Directional
- Double Acting NC/NO Bi-Directional
- **Type F2, F6, F3, F4**

PRESSURE TEMPERATURE CHART

Angle seat valve intended to be installed in an area where PED is applicable, the valve should be connected to a fluid pressure as indicated in the table hereunder or as mentioned in the operating parameter on page 5 whichever is lower.

DN	Class	Maximum Pressure kg/cm²					PED Applicable
		-10 °C To Room Temp.	50 °C	100 °C	150 °C	200 °C	
12	B40	≤25	≤25	≤25	≤25	≤25	Not Applicable
20	B40	≤25	≤25	≤25	≤25	≤25	Not Applicable
25	B40	≤25	≤25	≤25	≤25	≤25	Not Applicable
32	B25	24.5	23.2	20.8	19.0	17.6	Yes
40	B20	19.6	19.0	16.7	15.2	14.1	Yes
50	B25	24.5	23.7	20.8	19.6	17.6	Yes
65	B40	≤25	≤25	≤25	≤25	≤25	Yes
80	B40	≤15	≤15	≤15	≤15	≤15	Yes

Refer to operating parameter on page 5 for maximum permissible pressure based on the function type

Specifications are subject to change without notice

OPERATING PARAMETERS

OPERATING PARAMETER AT ROOM TEMPERATURE REFER FOR (AV, AW, AP & AF-(CLASS 300)

TYPE	DN	Actuator Ø	Connection	Kv m^3/h	Single Acting												Double Acting	
					Normally Closed, Pr. above plug		Normally Closed, Pr. above plug operated by 5/2 Pilot Valve		Normally Closed, Pr. below plug		Normally Closed, Bi-directional				Normally Open Pr. below plug		Normally Closed/ Open Bi-directional	
					F1		F5		F6		F3				F2		F4	
					Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)
12040	12	40	1/2"	5.8	4.4-10	16	4.4-10	16			7.5-10	10	7.5-10	12	4.4-10	25	0.8-10	25
12050	12	50	1/2"	5.8	2.8-10	16	2.8-10	16			7-10	14	7-10	16	2.8-10	25	0.8-10	25
12063	12	63	1/2"	5.8					4.5-10	0-25								
20050	20	50	3/4"	10.8	2.5-10	16	2.5-10	16			7-10	12	7-10	16	2.5-10	25	0.8-10	25
20063	20	63	3/4"	10.8	2.2-10	16	2.2-10	16	4.5-10	0-16	7.5-10	14	7.5-10	16	2.2-10	25	0.6-10	25
25050	25	50	1"	21	2.8-10	16	2.8-10	16			7-10	10	7-10	14	2.8-10	25	0.8-10	25
25063	25	63	1"	21	2.5-10	16	2.5-10	16	4.5-10	0-12	7.5-10	12	7.5-10	16	2.5-10	25	0.6-10	25
32063	32	63	11/4"	31	2.8-10	16	2.8-10	16	4.5-10	0-8	7.5-10	5	7.5-10	10	2.8-10	24.5	0.6-10	24.5
32090	32	90	11/4"	31	1.8-10	16	1.8-10	16			6-10	14	6-10	16	1.8-10	24.5	0.3-10	24.5
40063	40	63	11/2"	49	2.8-10	16	2.8-10	16	4.5-10	0-5	-	-	-	-	2.8-10	16	0.6-10	19.6
40090	40	90	11/2"	49	1.8-10	16	1.8-10	16			6-10	10	6-10	16	1.8-10	19.6	0.2-10	19.6
40110	40	110	11/2"	49	1.2-10	16	1.2-10	16			4.8-10	15	4.8-10	16	1.2-10	19.6	0.6-10	19.6
50063	50	63	2"	68	2.7-10	16	2.7-10	16	4.5-10	0-3	-	-	-	-	2.7-10	13	0.3-10	24.5
50090	50	90	2"	68	1.8-10	16	1.8-10	16			6-10	6	6-10	13	1.8-10	24.5	0.2-10	24.5
50110	50	110	2"	68	1.2-10	16	1.2-10	16			1.3-10	10	4.8-10	16	1.2-10	16	0.2-10	24.5
65090	65	90	21/2"	120	1.8-10	12	1.8-10	12							1.8-10	16	0.3-10	16
65110	65	110	21/2"	120	1.2-10	16	1.2-10	16							1.2-10	25	0.2-10	25
80110	80	110	3"	185	1.2-10	12	1.2-10	12							1.2-10	15	0.2-10	15

Note : Models in bold prints are preferred valve size, operator combination

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OPERATING PARAMETERS

OPERATING PARAMETER AT ROOM TEMPERATURE REFER FOR AF-CLASS 150

TYPE	DN	Actuator Ø		Connection	Kv m^3/h	Single Acting										Double Acting			
						Normally Closed, Pr. above plug		Normally Closed, Pr. above plug operated by 5/2 Pilot Valve		Normally Closed, Pr. below plug		Normally Closed, Bi-directional				Normally Open Pr. below plug		Normally Closed/ Open Bi-directional	
						F1		F5		F6		F3				F2		F4	
						Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pr. below plug Pilot Pr. (bar)	Pr. below plug Fluid Pr. (bar)	Pr. above plug Pilot Pr. (bar)	Pr. above plug Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)
12040	12	40	1/2"	5.8	4.4-10	16	4.4-10	16			7.5-10	10	7.5-10	12	4.4-10	19	0.8-10	19	
12050	12	50	1/2"	5.8	2.8-10	16	2.8-10	16			7-10	14	7-10	16	2.8-10	19	0.8-10	19	
12063	12	63	1/2"	5.8					4.5-10	0-19									
20050	20	50	3/4"	10.8	2.5-10	16	2.5-10	16			7-10	12	7-10	16	2.5-10	19	0.8-10	19	
20063	20	63	3/4"	10.8	2.2-10	16	2.2-10	16	4.5-10	0-16	7.5-10	14	7.5-10	16	2.2-10	19	0.6-10	19	
25050	25	50	1"	21	2.8-10	16	2.8-10	16			7-10	10	7-10	14	2.8-10	19	0.8-10	19	
25063	25	63	1"	21	2.5-10	16	2.5-10	16	4.5-10	0-12	7.5-10	12	7.5-10	16	2.5-10	19	0.6-10	19	
32063	32	63	11/4"	31	2.8-10	16	2.8-10	16	4.5-10	0-8	7.5-10	5	7.5-10	10	2.8-10	19	0.6-10	19	
32090	32	90	11/4"	31	1.8-10	16	1.8-10	16			6-10	14	6-10	16	1.8-10	19	0.3-10	19	
40063	40	63	11/2"	49	2.8-10	16	2.8-10	16	4.5-10	0-5	-	-	-	-	2.8-10	16	0.6-10	19	
40090	40	90	11/2"	49	1.8-10	16	1.8-10	16			6-10	10	6-10	16	1.8-10	19	0.2-10	19	
40110	40	110	11/2"	49	1.2-10	16	1.2-10	16			4.8-10	15	4.8-10	16	1.2-10	19	0.6-10	19	
50063	50	63	2"	68	2.7-10	16	2.7-10	16	4.5-10	0-3	-	-	-	-	2.7-10	13	0.3-10	19	
50090	50	90	2"	68	1.8-10	16	1.8-10	16			6-10	6	6-10	13	1.8-10	19	0.2-10	19	
50110	50	110	2"	68	1.2-10	16	1.2-10	16			1.3-10	10	4.8-10	16	1.2-10	16	0.2-10	19	
65090	65	90	21/2"	120	1.8-10	12	1.8-10	12							1.8-10	16	0.3-10	16	
65110	65	110	21/2"	120	1.2-10	16	1.2-10	16							1.2-10	19	0.2-10	19	
80110	80	110	3"	185	1.2-10	12	1.2-10	12							1.2-10	15	0.2-10	15	

Note : Models in bold prints are preferred valve size, operator combination

OPERATING PARAMETERS

OPERATING PARAMETER AT ROOM TEMPERATURE REFER FOR AK

TYPE	DN	Actuator Ø	Connection	Kv m^3/h	Single Acting												Double Acting	
					Normally Closed, Pr. above plug		Normally Closed, Pr. above plug operated by 5/2 Pilot Valve		Normally Closed, Pr. below plug		Normally Closed, Bi-directional				Normally Open Pr. below plug		Normally Closed/ Open Bi-directional	
					F1		F5		F6		F3				F2		F4	
					Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)	Pilot Pr. (bar)	Fluid Pr. (bar)
12040	12	40	1/2"	5.8	4.4-10	13	4.4-10	13			7.5-10	10	7.5-10	12	4.4-10	13	0.8-10	13
12050	12	50	1/2"	5.8	2.8-10	13	2.8-10	13			7-10	13	7-10	13	2.8-10	13	0.8-10	13
12063	12	63	1/2"	5.8					4.5-10	0-13								
20050	20	50	3/4"	10.8	2.5-10	13	2.5-10	13			7-10	12	7-10	13	2.5-10	13	0.8-10	13
20063	20	63	3/4"	10.8	2.2-10	13	2.2-10	13	4.5-10	0-13	7.5-10	13	7.5-10	13	2.2-10	13	0.6-10	13
25050	25	50	1"	21	2.8-10	13	2.8-10	13			7-10	10	7-10	13	2.8-10	13	0.8-10	13
25063	25	63	1"	21	2.5-10	13	2.5-10	13	4.5-10	0-12	7.5-10	12	7.5-10	13	2.5-10	13	0.6-10	13
32063	32	63	11/4"	31	2.8-10	13	2.8-10	13	4.5-10	0-8	7.5-10	5	7.5-10	10	2.8-10	13	0.6-10	13
32090	32	90	11/4"	31	1.8-10	13	1.8-10	13			6-10	13	6-10	13	1.8-10	13	0.3-10	13
40063	40	63	11/2"	49	2.8-10	13	2.8-10	13	4.5-10	0-5	-	-	-	-	2.8-10	13	0.6-10	13
40090	40	90	11/2"	49	1.8-10	13	1.8-10	13			6-10	10	6-10	13	1.8-10	13	0.2-10	13
40110	40	110	11/2"	49	1.2-10	13	1.2-10	13			4.8-10	13	4.8-10	13	1.2-10	13	0.6-10	13
50063	50	63	2"	68	2.7-10	13	2.7-10	13	4.5-10	0-3	-	-	-	-	2.7-10	13	0.3-10	13
50090	50	90	2"	68	1.8-10	13	1.8-10	13			6-10	6	6-10	13	1.8-10	13	0.2-10	13
50110	50	110	2"	68	1.2-10	13	1.2-10	13			1.3-10	10	4.8-10	13	1.2-10	13	0.2-10	13
65090	65	90	21/2"	120	1.8-10	12	1.8-10	12							1.8-10	13	0.3-10	13
65110	65	110	21/2"	120	1.2-10	13	1.2-10	13							1.2-10	13	0.2-10	13
80110	80	110	3"	185	1.2-10	12	1.2-10	12							1.2-10	13	0.2-10	13

Note : Models in bold prints are preferred valve size, operator combination

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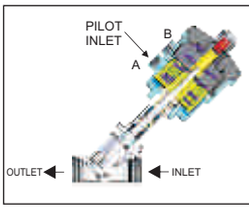
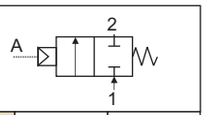
OPERATING PARAMETERS

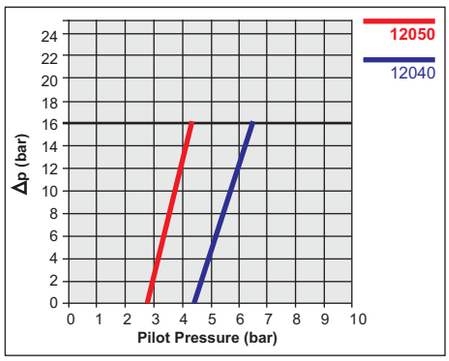


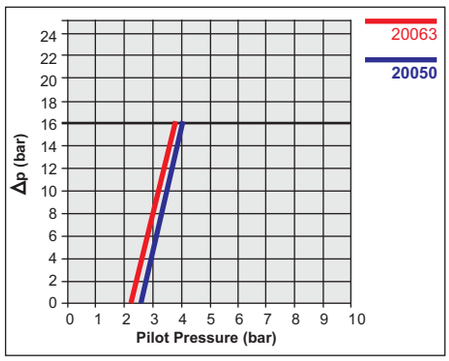
**SINGLE ACTING, NORMALLY CLOSED,
PRESSURE ABOVE PLUG**

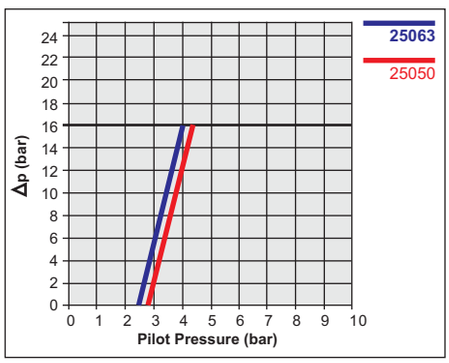


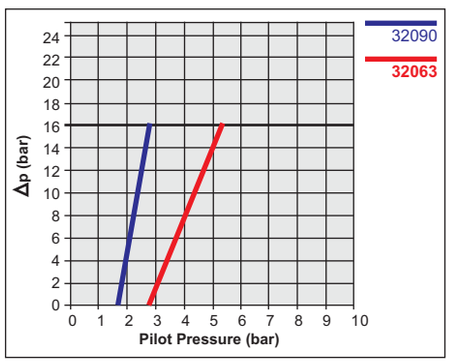
Application : Ideally suited for condensable media (Steam)
Media : Air, Oil, Steam, Water, Liquid, Fuel, Gases, Vacuum

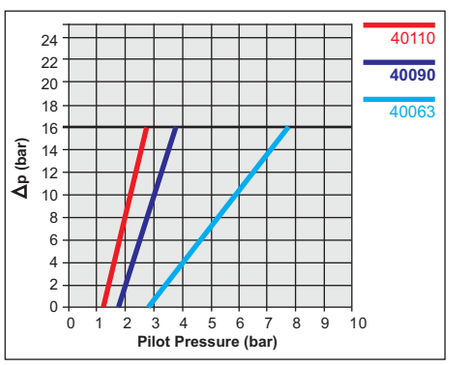
F1	F5

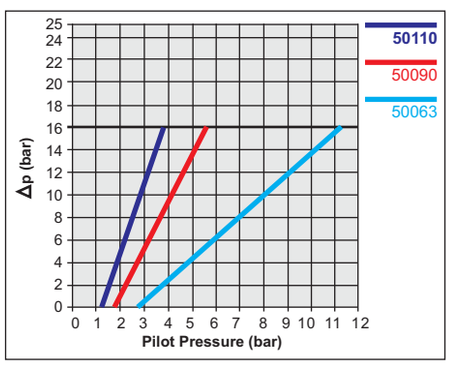


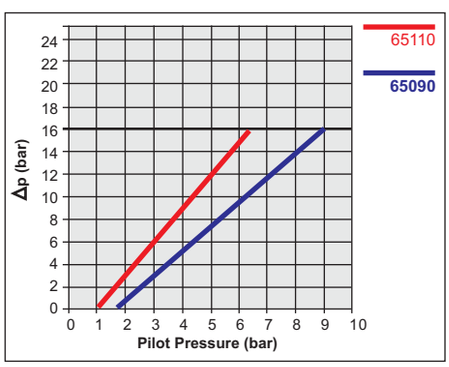


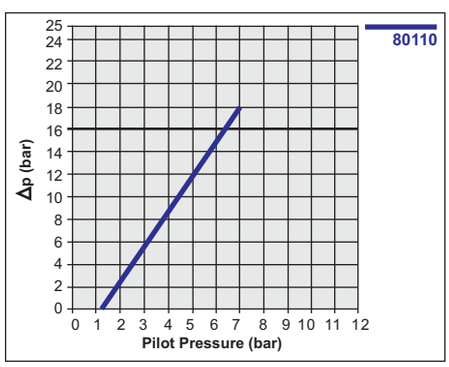








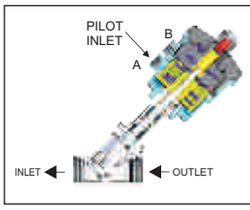




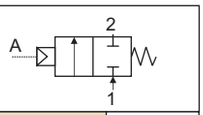
Note : 1 Models in bold prints are preferred valve size, operator combination
2 Angle Seat Valve function type F1 when opted to be operated by 5/2 Solenoid Valve, specify function type as F5

Specifications are subject to change without notice

OPERATING PARAMETERS

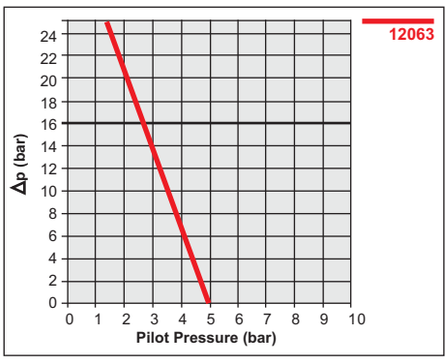


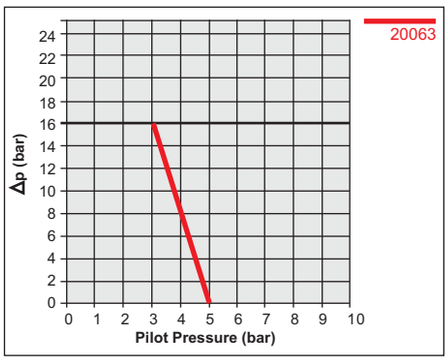
**SINGLE ACTING, NORMALLY CLOSED,
PRESSURE BELOW PLUG**

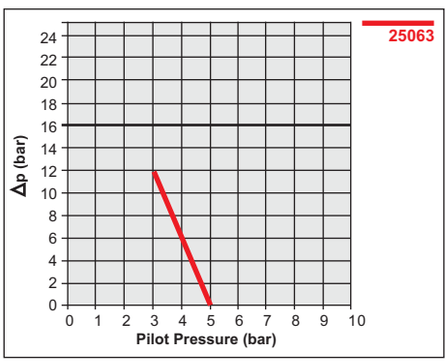


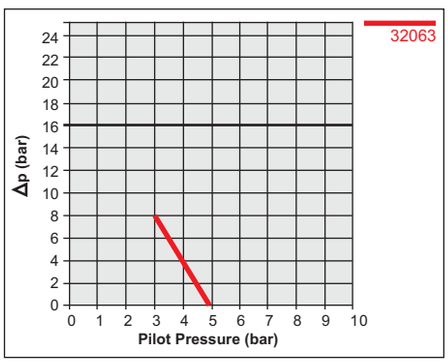
Application : Ideally suited for condensable media (Steam)
Media : Air, Oil, Steam, Water, Liquid, Fuel, Gases, Vacuum

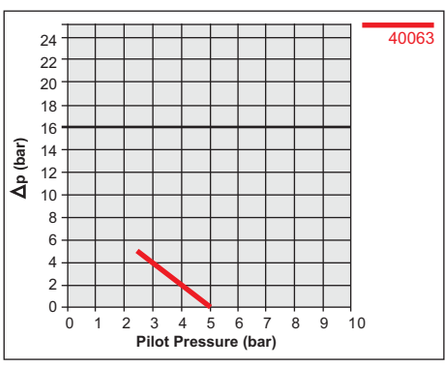
F6

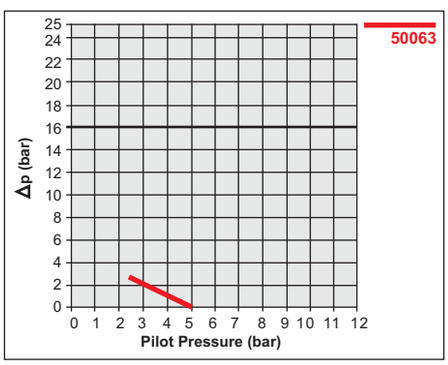


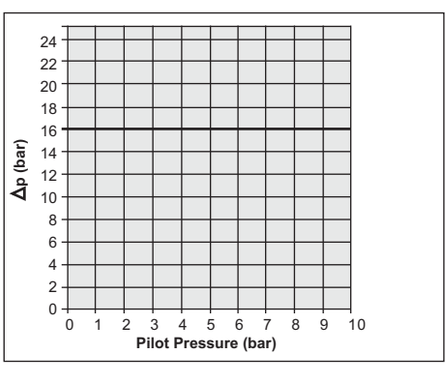


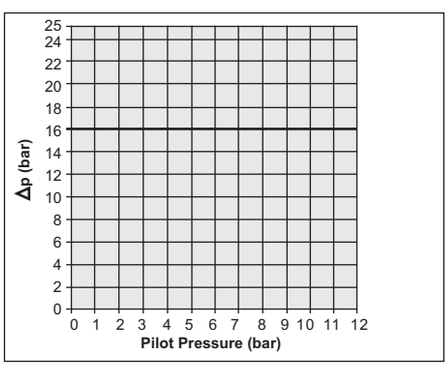












Note : Models in bold prints are preferred valve size, operator combination

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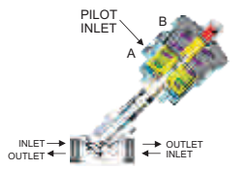
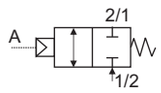
OPERATING PARAMETERS

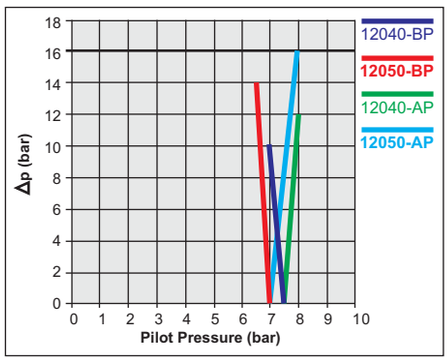


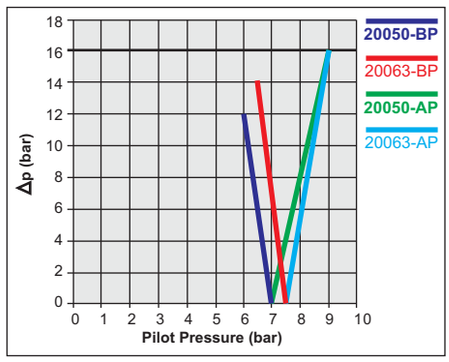
**SINGLE ACTING, NORMALLY CLOSED,
BI-DIRECTIONAL**

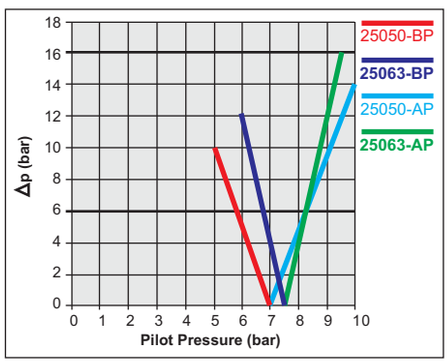


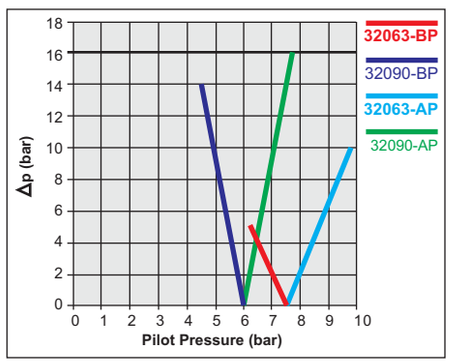
Application : For incompressible media. To avoid water hammer connect inlet below plug and for condensable media (steam) connect inlet above plug
Media : Air, Oil, Steam, Water, Liquid, Fuel, Gases, Vacuum

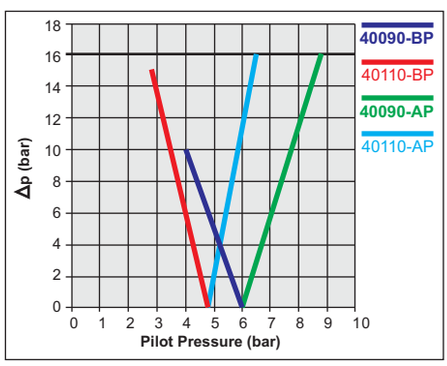
F3

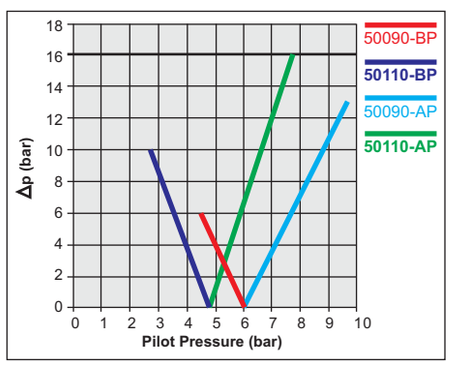


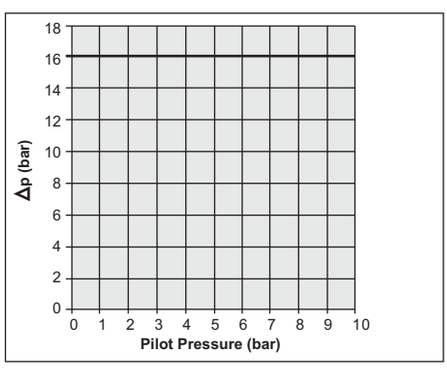


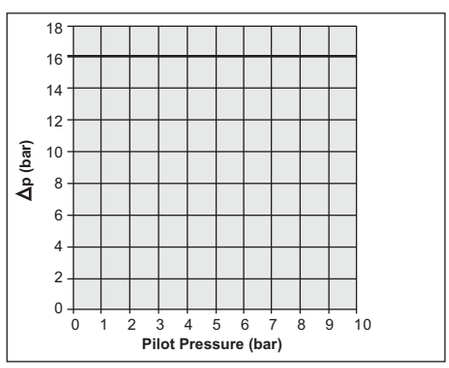










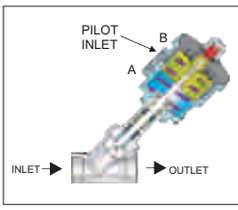


Note :
- Follow ‘BP’ when inlet connected to port ‘2’. i.e. pressure below plug
- Follow ‘AP’ when inlet connected to port ‘1’. i.e. pressure above plug

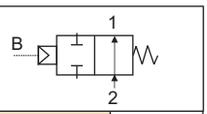
Note : Models in bold prints are preferred valve size, operator combination

Specifications are subject to change without notice

OPERATING PARAMETERS

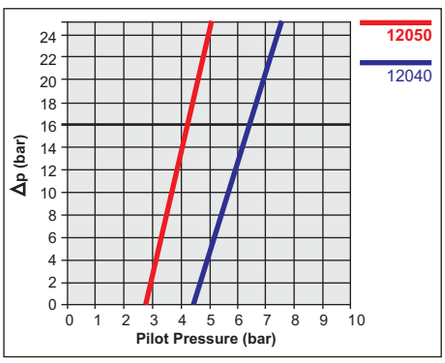


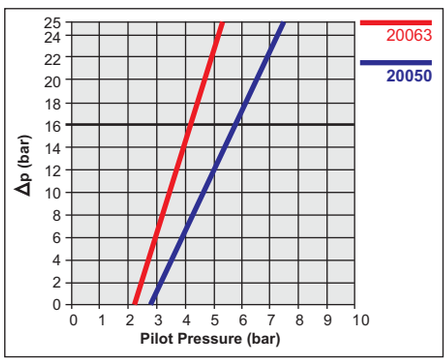
**SINGLE ACTING, NORMALLY OPEN,
PRESSURE BELOW PLUG**

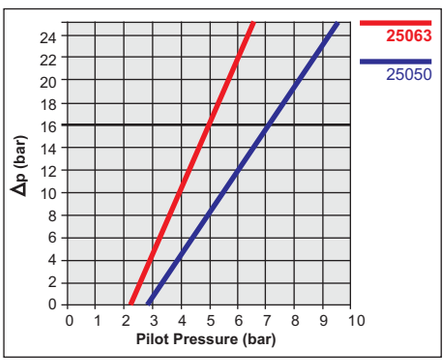


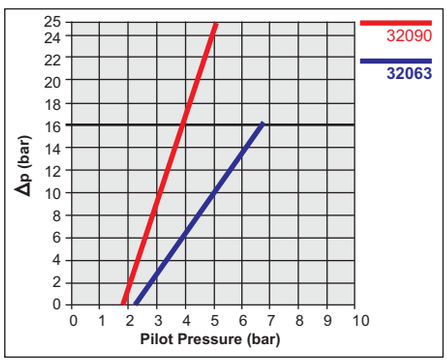
Application : Ideally suited for incompressible media (Liquid)
Media : Air, Oil, Steam, Water, Liquid, Fuel, Gases, Vacuum

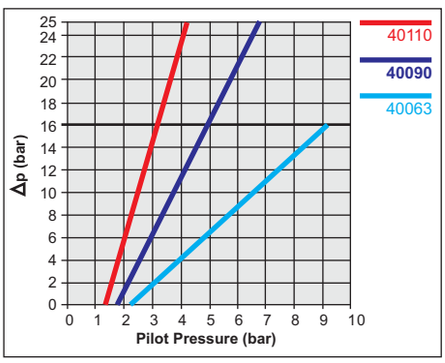
F2

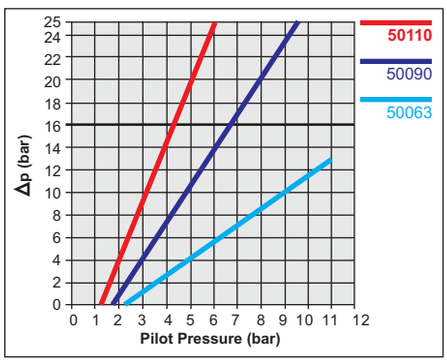


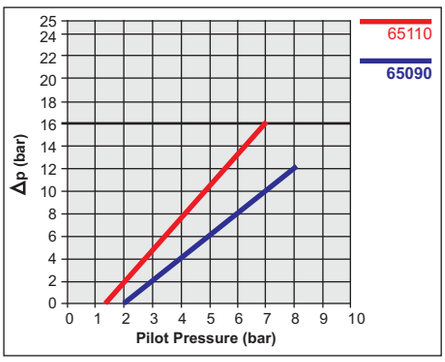


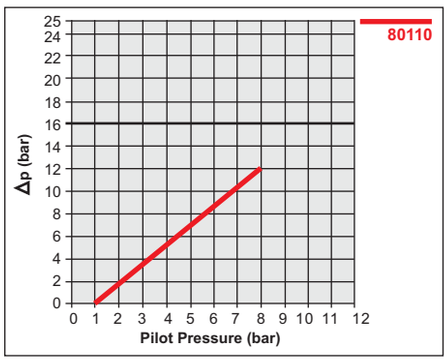












Note : Models in bold prints are preferred valve size, operator combination

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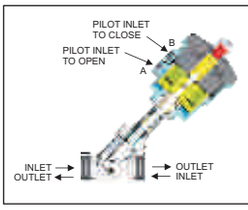
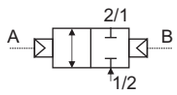
OPERATING PARAMETERS

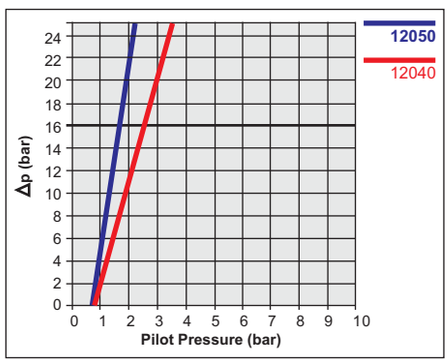


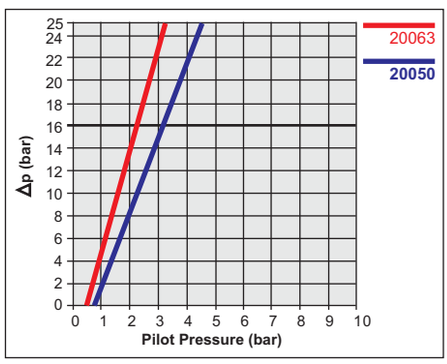
DOUBLE ACTING, NORMALLY CLOSED/ NORMALLY OPEN, BI-DIRECTIONAL

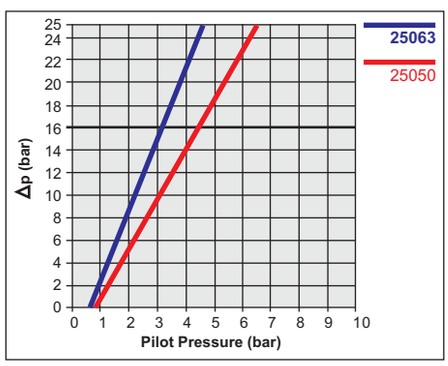


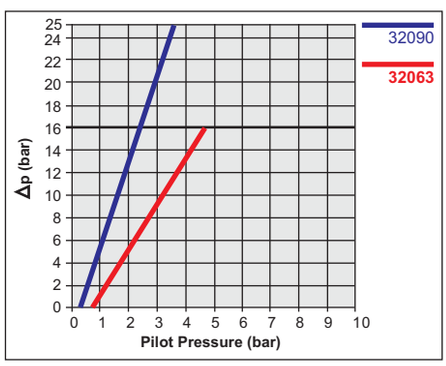
Application : For incompressible media. To avoid water hammer connect inlet below plug and for condensable media (Steam) connect inlet above plug
Media : Air, Oil, Steam, Water, Liquid, Fuel, Gases, Vacuum

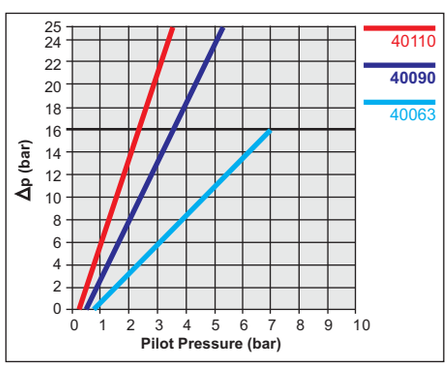
F4

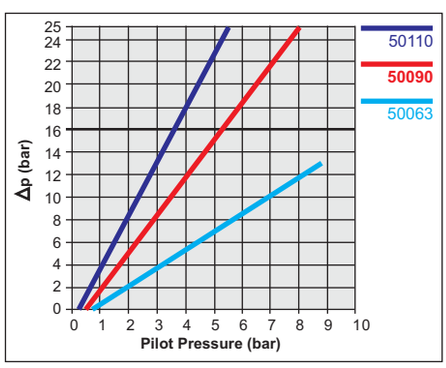


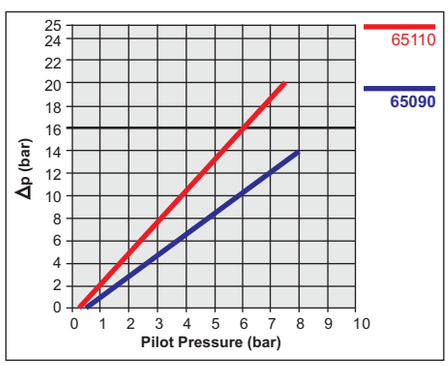


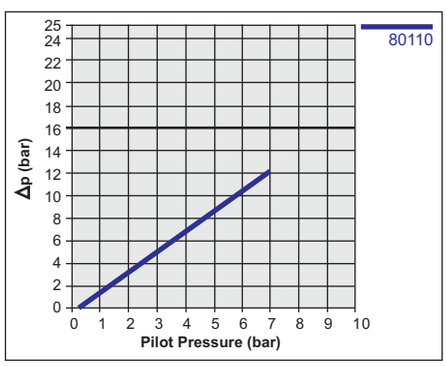










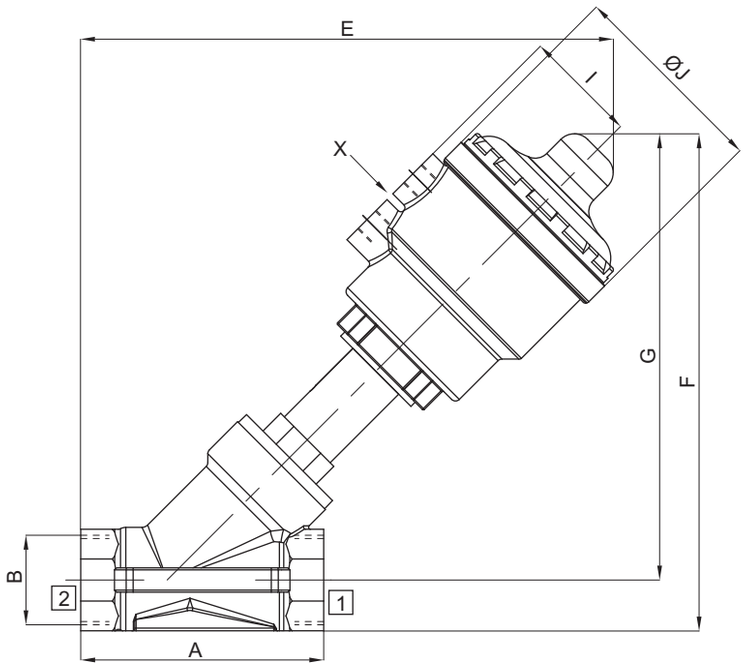


Note : Models in bold prints are preferred valve size, operator combination

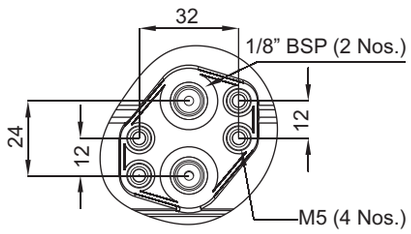
Specifications are subject to change without notice

DIMENSIONS

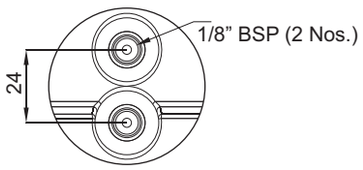
TYPE 'AV' : Threaded ports as per ISO 228/1 and ISO 7/1



**VIEW 'X'
NAMUR PORT**



**VIEW 'X'
STANDARD PORT**



(All dimensions are in mm)

Model	DN	Actuator Ø	A	B BSP/ NPT	E	F	G	ØJ	I	Weight kg. (appx.)
AV12040-X-X	12	40	65	1/2"	189	180	167	65	38	1
AV12050-X-X	12	50	65	1/2"	187	178	166	75	42	1
AV20050-X-X	20	50	75	3/4"	191	181	165	75	42	1.1
AV20063-X-X	20	63	75	3/4"	205	194	178	93	49	1.3
AV25050-X-X	25	50	90	1"	197	185	165	75	42	1.4
AV25063-X-X	25	63	90	1"	210	199	178	93	49	1.6
AV32063-X-X	32	63	110	11/4"	220	208	182	93	49	2.1
AV32090-X-X	32	90	110	11/4"	253	240	216	124	67	3.2
AV40063-X-X	40	63	120	11/2"	225	219	189	93	49	2.9
AV40090-X-X	40	90	120	11/2"	255	249	219	124	67	3.9
AV40110-X-X	40	110	120	11/2"	274	268	238	148	75	4.1
AV50063-X-X	50	63	150	2"	253	238	203	93	49	4.1
AV50090-X-X	50	90	150	2"	283	268	233	124	67	5.2
AV50110-X-X	50	110	150	2"	303	291	252	148	75	6.3
AV65090-X-X	65	90	180	21/2"	308	298	253	124	67	7.6
AV65110-X-X	65	110	180	21/2"	329	319	274	148	75	8.7
AV80110-X-X	80	110	210	3"	352	340	287	148	75	11

Note : Models in bold prints are preferred valve size, operator combination

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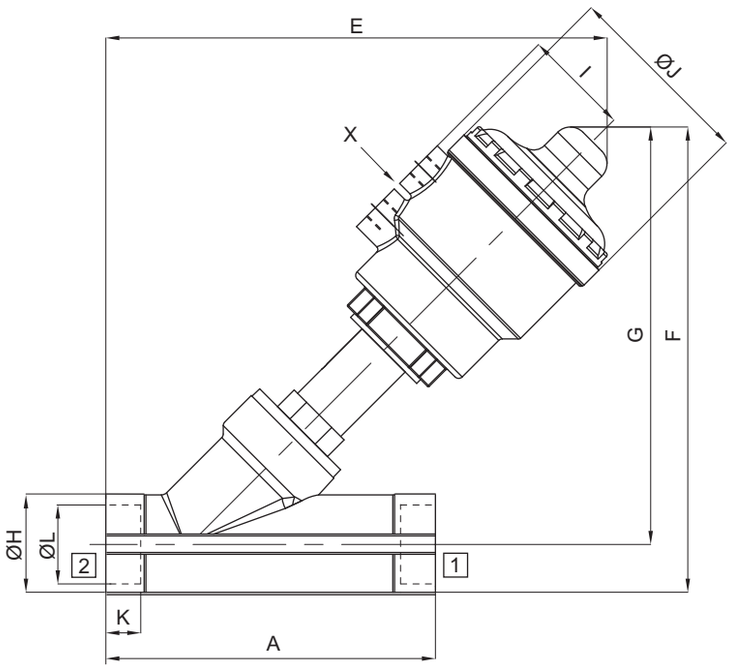
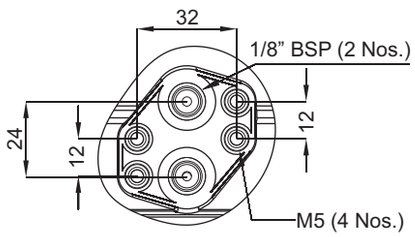
DIMENSIONS

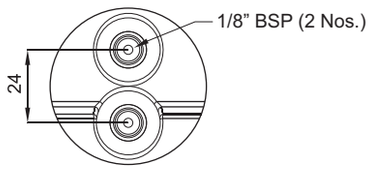
TYPE 'AW' : Weldneck type ports as per ISO 4200



VIEW 'X'
NAMUR PORT



VIEW 'X'
STANDARD PORT



(All dimensions are in mm)

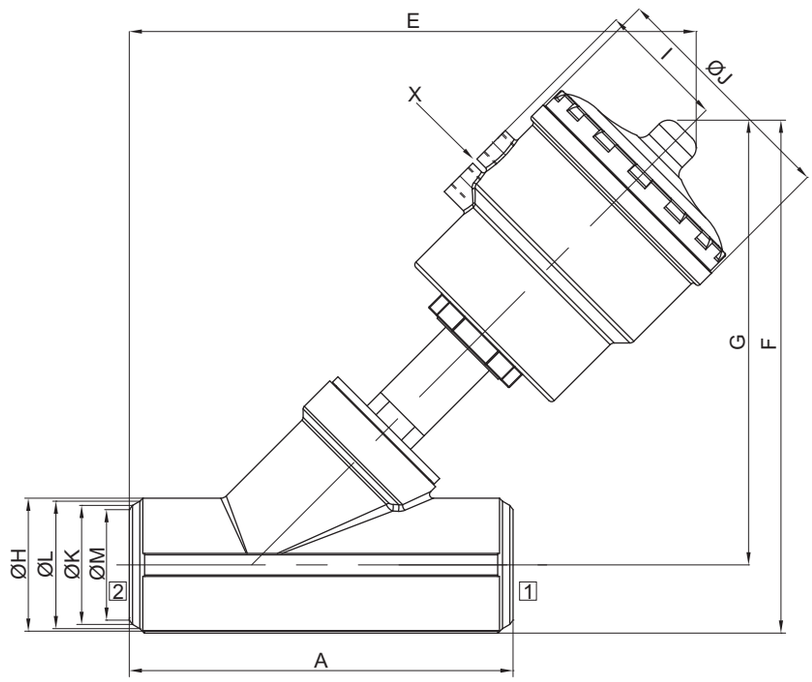
Model	DN	Actuator Ø	A	E	F	G	ØJ	I	ØH	ØL	K	Weight kg. (appx.)
AW-12040-X-X	12	40	100	189	180	167	65	38	28.4	21.8	12	1
AW12050-X-X	12	50	100	188	178	166	75	42	28.4	21.8	12	1
AW20050-X-X	20	50	115	194	181	165	75	42	34.4	27.2	14	1.1
AW20063-X-X	20	63	115	213	194	178	93	49	34.4	27.2	14	1.3
AW25050-X-X	25	50	130	197	185	165	75	42	41.5	33.9	14	1.4
AW25063-X-X	25	63	130	217	199	178	93	49	41.5	33.9	14	1.6
AW32063-X-X	32	63	145	225	208	182	93	49	50.3	42.7	14	2.1
AW32090-X-X	32	90	145	268	240	216	124	67	50.3	42.7	14	4
AW40063-X-X	40	63	160	232	219	189	93	49	57	48.8	14	2.9
AW40090-X-X	40	90	160	270	249	219	124	67	57	48.8	14	4.3
AW40110-X-X	40	110	160	298	268	238	148	75	57	48.8	14	5.5
AW50063-X-X	50	63	175	260	238	203	93	49	70.4	61.2	16	4.1
AW50090-X-X	50	90	175	298	272	233	124	67	70.4	61.2	16	5.5
AW50110-X-X	50	110	175	326	291	252	148	75	70.4	61.2	16	6.7
AW65090X-X	65	90	210	319	299	253	124	67	87	73.9	16	6.9
AW65110-X-X	65	110	210	340	320	274	148	75	87	73.9	16	8.1
AW80110-X-X	80	110	250	352	340	287	148	75	101.2	89.2	16	9.9

Note : Models in bold prints are preferred valve size, operator combination

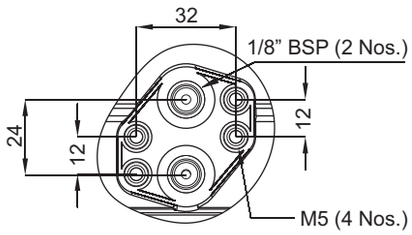
Specifications are subject to change without notice

DIMENSIONS

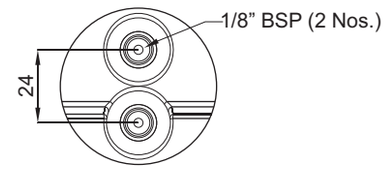
TYPE 'AP'



VIEW 'X'
NAMUR PORT



VIEW 'X'
STANDARD PORT



(All dimensions are in mm)

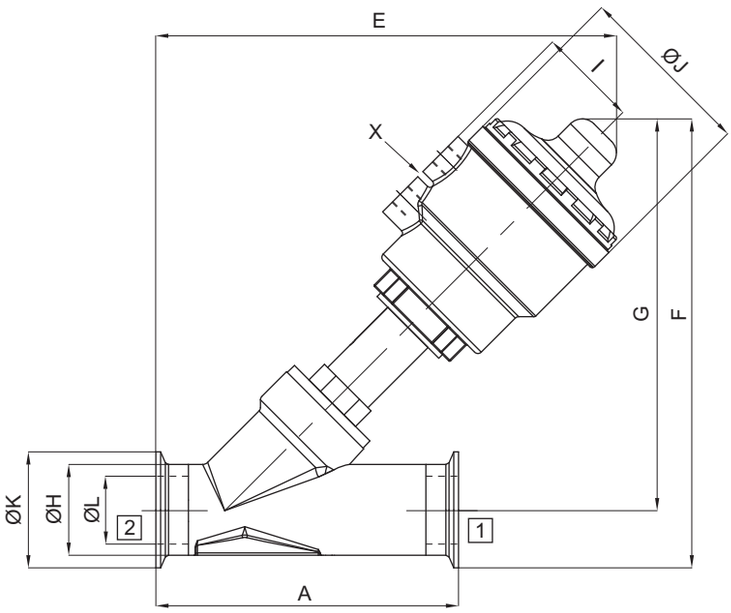
Model	DN	Actuator Ø	A	E	F	G	ØJ	I	ØH	ØL	ØK	ØM	Weight kg. (appx.)
AP12040-X-X	12	40	115	214	180	167	65	38	26	25.4	25	18.8	1
AP12050-X-X	12	50	115	212	178	166	75	42	26	25.4	22	18.8	1
AP20050-X-X	20	50	125	216	181	165	75	42	32	31.2	28	24	1.2
AP20063-X-X	20	63	125	230	194	178	93	49	32	31.2	28	24	1.5
AP25050-X-X	25	50	140	222	185	165	75	42	40	39.4	35	28.7	1.6
AP25063-X-X	25	63	140	235	199	178	93	49	40	39.4	35	28.7	1.8
AP32063-X-X	32	63	160	245	208	182	93	49	49	47.6	44	38.1	2.3
AP32090-X-X	32	90	160	278	240	216	124	67	49	47.6	44	38.1	3.3
AP40063-X-X	40	63	170	250	219	189	93	49	57.8	53.8	50	44	3
AP40090-X-X	40	90	170	280	249	219	124	67	57.8	53.8	50	44	3.2
AP40110-X-X	40	110	170	299	268	238	148	75	57.8	53.8	50	44	4.3
AP50063-X-X	50	63	200	278	238	203	93	49	70	66.4	62	55.5	3.4
AP50090-X-X	50	90	200	308	268	233	124	67	70	66.4	62	55.5	4.5
AP50110-X-X	50	110	200	328	291	252	148	75	70	66.4	62	55.5	6.6
AP65090-X-X	65	90	230	333	298	253	124	67	89	81	77	65.7	8.3
AP65110-X-X	65	110	230	354	319	274	148	75	89	81	77	65.7	8.4
AP80110-X-X	80	110	260	377	340	287	148	75	104.2	96.1	91	81	11.8

Note : Models in bold prints are preferred valve size, operator combination

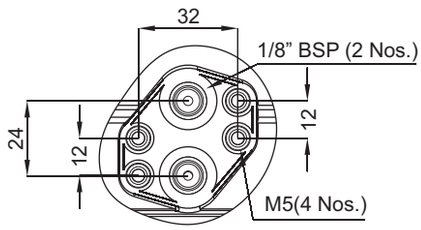
ROTEX
Engineering For The Future

DIMENSIONS

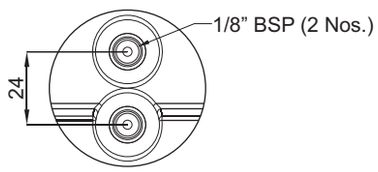
TYPE 'AK' : Triclamp end as per ISO 2852



VIEW 'X'
NAMUR PORT



VIEW 'X'
STANDARD PORT



(All dimensions are in mm)

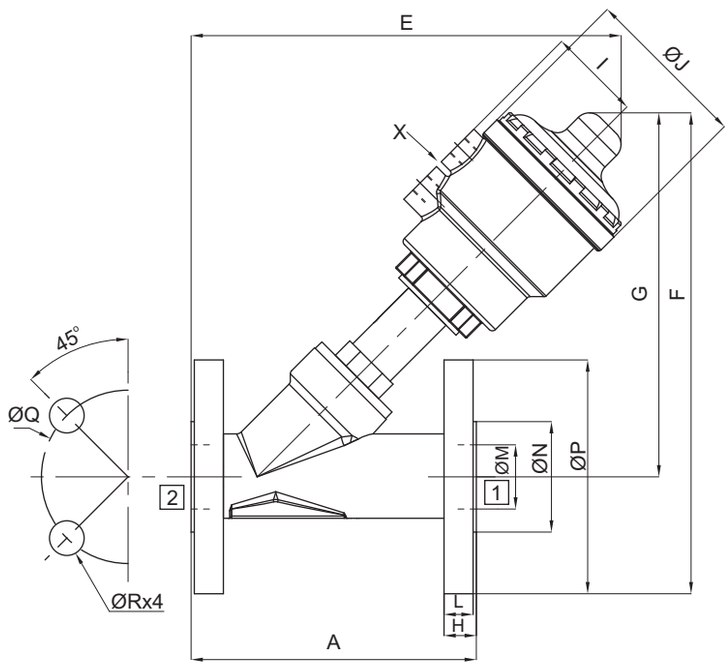
Model	DN	Actuator Ø	A	E	F	G	ØJ	I	ØL	ØH	ØK	Weight kg. (appx.)
AK12040-X-X	12	40	100	189	184	167	65	38	18.1	21.6	34.0	1.3
AK12050-X-X	12	50	100	188	183	166	75	42	18.1	21.6	34.0	1
AK20050-X-X	20	50	115	194	191	165	75	42	23.7	26.9	50.5	1.3
AK20063-X-X	20	63	115	213	204	178	93	49	23.7	26.9	50.5	1.4
AK25050-X-X	25	50	130	197	191	165	75	42	29.7	33.7	50.5	1.5
AK25063-X-X	25	63	130	217	204	178	93	49	29.7	33.7	50.5	1.7
AK32063-X-X	32	63	145	225	208	182	93	49	38.4	42.4	50.5	2.1
AK32090-X-X	32	90	145	268	242	216	124	67	38.4	42.4	50.5	3.2
AK40063-X-X	40	63	160	232	221	189	93	49	44.3	48.3	64.0	3
AK40090-X-X	40	90	160	270	251	219	124	67	44.3	48.3	64.0	4.1
AK40110-X-X	40	110	160	298	270	238	148	75	44.3	48.3	64.0	5.2
AK50063-X-X	50	63	190	260	242	203	93	49	55.7	60.3	77.5	4.3
AK50090-X-X	50	90	190	298	272	233	124	67	55.7	60.3	77.5	5.3
AK50110-X-X	50	110	190	326	291	252	148	75	55.7	60.3	77.5	6.5
AK65090-X-X	65	90	220	319	299	253	124	67	72.1	76.1	91	8
AK65110-X-X	65	110	220	340	320	274	148	75	72.1	76.1	91	9.2
AK80110-X-X	80	110	250	347	340	287	148	75	84.9	88.9	106	11.4

Note : Models in bold prints are preferred valve size, operator combination

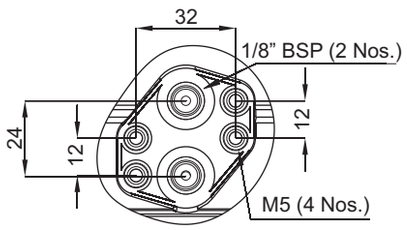
Specifications are subject to change without notice

DIMENSIONS

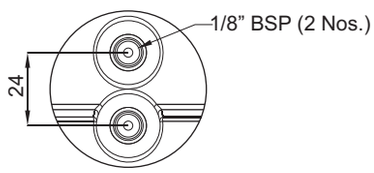
TYPE 'AF' : Flanged connection as per ASME 16.5 (Class150-RF)
Face to Face distance as per ASME B16.10



VIEW 'X'
NAMUR PORT



VIEW 'X'
STANDARD PORT



(All dimensions are in mm)

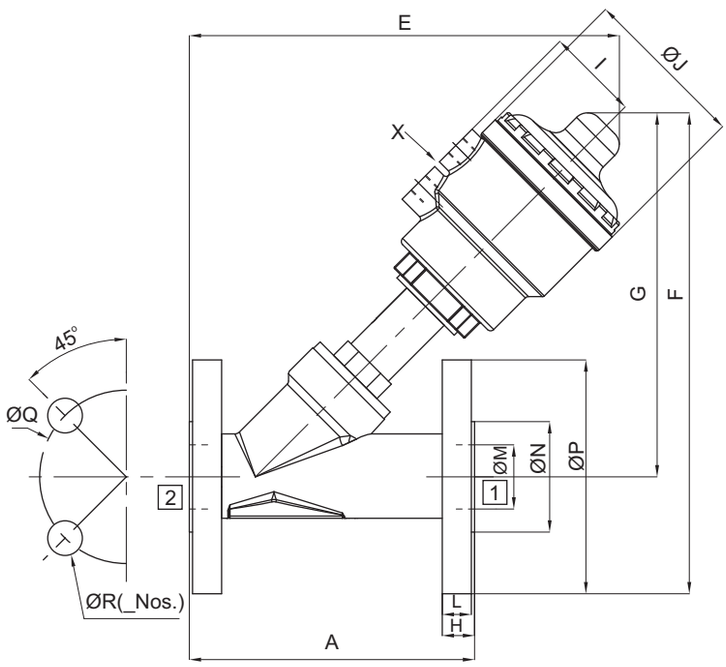
Model	DN	Actuator Ø	A	E	F	G	ØJ	I	ØM	ØN	ØP	L	H	ØQ	ØR	Weight kg. (appx.)
AF12040-X-X	12	40	140	195	218	167	65	38	15.8	34.9	90	9.6	11.6	60.3	15.8	1
AF12050-X-X	12	50	140	198	221	166	75	42	15.8	34.9	90	9.6	11.6	60.3	15.8	1.8
AF20050-X-X	20	50	152	204	227	165	75	42	20.9	42.9	100	11.2	13.2	69.8	15.8	3
AF20063-X-X	20	63	152	216	239	178	93	49	20.9	42.9	100	11.2	13.2	69.8	15.8	2.9
AF25050-X-X	25	50	165	208	230	165	75	42	26.6	50.8	110	12.7	14.7	79.4	15.8	3
AF25063-X-X	25	63	165	220	242	178	93	49	26.6	50.8	110	12.7	14.7	79.4	15.8	4.2
AF32063-X-X	32	63	184	225	212	182	93	49	35	63.5	118	14.3	16.3	88.9	15.8	4.7
AF32090-X-X	32	90	184	266	288	216	124	67	35	63.5	118	14.3	16.3	88.9	15.8	5.8
AF40063-X-X	40	63	203	257	226	189	93	49	40.9	73	127	15.9	17.9	98.4	15.8	5.5
AF40090-X-X	40	90	203	288	327	219	124	67	40.9	73	127	15.9	17.9	98.4	15.8	6.5
AF40110-X-X	40	110	203	307	339	238	148	75	40.9	73	127	15.9	17.9	98.4	15.8	7.6
AF50063-X-X	50	63	229	280	245	203	93	49	52.5	92.1	152	17.5	19.5	120.6	19	8
AF50090-X-X	50	90	229	308	323	233	124	67	52.5	92.1	152	17.5	19.5	120.6	19	9.1
AF50110-X-X	50	110	229	327	365	252	148	75	52.5	92.1	152	17.5	19.5	120.6	19	10.1
AF65090-X-X	65	90	279	304	342	253	124	67	62.7	104.8	180	20.7	22.7	139.7	19	14
AF65110-X-X	65	110	279	325	363	274	148	75	62.7	104.8	180	20.7	22.7	139.7	19	15.2
AF80110-X-X	80	110	318	340	382	287	148	75	77.9	127	190	22.3	24.3	152.4	19	18.6

Note : Models in bold prints are preferred valve size, operator combination

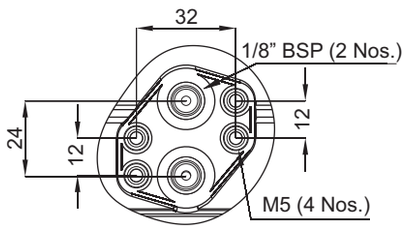
ROTEX
Engineering For The Future

DIMENSIONS

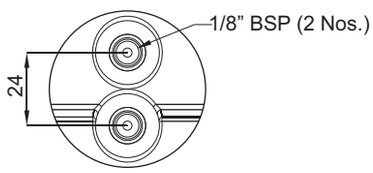
TYPE 'AF' : Flanged connection as per ASME 16.5 (Class300-RF)
Face to Face distance as per ASME B16.10



VIEW 'X'
NAMUR PORT



VIEW 'X'
STANDARD PORT



(All dimensions are in mm)

Model	DN	Actuator Ø	A	E	F	G	ØJ	I	ØM	ØN	ØP	L	H	ØQ	ØR()	Weight kg. (appx.)
AF12040-X-X	12	40	152	195	218	167	65	38	15.8	34.9	95	12.7	14.7	66.7	15.8(4)	1
AF12050-X-X	12	50	152	211	213	166	75	42	15.8	34.9	95	12.7	14.7	66.7	15.8(4)	1.8
AF20050-X-X	20	50	178	202	224	165	75	42	20.9	42.9	117	14.3	16.3	82.6	19(4)	3
AF20063-X-X	20	63	178	216	237	178	93	49	20.9	42.9	117	14.3	16.3	82.6	19(4)	2.9
AF25050-X-X	25	50	203	201	230	165	75	42	26.6	50.8	125	15.9	17.9	88.9	19(4)	3
AF25063-X-X	25	63	203	215	240	178	93	49	26.6	50.8	125	15.9	17.9	88.9	19(4)	4.2
AF32063-X-X	32	63	216	220	249	182	93	49	35	63.5	135	17.5	19.5	98.4	19(4)	4.7
AF32090-X-X	32	90	216	254	283	216	124	67	35	63.5	135	17.5	19.5	98.4	19(4)	5.8
AF40063-X-X	40	63	240*	231	267	189	93	49	40.9	73	156	19.1	21.1	114.3	22.2(4)	5.5
AF40090-X-X	40	90	240*	260	298	219	124	67	40.9	73	156	19.1	21.1	114.3	22.2(4)	6.5
AF40110-X-X	40	110	240*	280	316	238	148	75	40.9	73	156	19.1	21.1	114.3	22.2(4)	7.6
AF50063-X-X	50	63	267	260	286	203	93	49	52.5	92.1	165	20.7	22.7	127	19(8)	8
AF50090-X-X	50	90	267	289	316	233	124	67	52.5	92.1	165	20.7	22.7	127	19(8)	9.1
AF50110-X-X	50	110	267	307	335	252	148	75	52.5	92.1	165	20.7	22.7	127	19(8)	10.1
AF65090-X-X	65	90	292	311	348	253	124	67	62.7	104.8	190	23.9	25.9	149.2	22.2(8)	14
AF65110-X-X	65	110	292	331	369	274	148	75	62.7	104.8	190	23.9	25.9	149.2	22.2(8)	15.2
AF80110-X-X	80	110	318	311	392	287	148	75	77.9	127	210	27	29	168.3	22.2(8)	18.6

- Specify port connection 300 when opted for class 300RF flange connection

Note : Models in bold prints are preferred valve size, operator combination
*Mark dimension not as per ASME B16.10

Specifications are subject to change without notice

ACCESSORIES

PORT CONNECTIONS

DUST CAP

SIZE	MODEL NO
1/8" BSP	DC-01
1/4" BSP	DC-02

BUG SCREEN

SIZE	MODEL NO
1/8" BSP	BS-01
1/4" BSP	BS-02

SINTERED BRONZE MUFFLER

SIZE	MODEL NO
1/8" BSP	S-01
1/4" BSP	S-02

TRICLAMP

SIZE	MODEL NO
DN 12	TC-01
DN 20/25/32	TC 02
DN 40	TC 03
DN 50	TC 04
DN 65	TC 05
DN 80	TC 06

SOLENOID VALVES

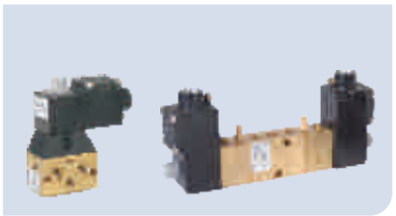
3/2 DIRECT MOUNT

Type : 304 3/2 Direct mount
The valve can be directly mounted on single acting operator having threaded/ NAMUR pilot port connections.
Solenoid Enclosure
Weatherproof : DIN plug
Application : Indoor

Note :Contact Rotex for Solenoid Valve code

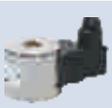
3/2 SOLENOID VALVE

Type : 30125 3/2 Body ported
30106 3/2 NAMUR
Ideally suited for outdoor application for operating single acting operator having threaded/ NAMUR pilot port connection
Solenoid Enclosure
Weatherproof : DIN plug, terminal box
Explosion proof : Ex d, Ex ia
Application : Indoor and Outdoor



5/2 SOLENOID VALVE

Type : 51400 Single Solenoid body ported
57400 Double Solenoid body ported 51424/ 51450 Single Solenoid NAMUR 57450 Double Solenoid NAMUR
Ideally suited for outdoor application for operating double acting operator having threaded/ NAMUR pilot port connection
Solenoid Enclosure
Weatherproof : DIN plug, terminal box
Explosion proof : Ex d, Ex ia
Application : Indoor and Outdoor

VALVE TYPE	PLUGIN-I 22	TERMINAL BOX 16/ 19	FPJB Ex d 37/ 39	Ex ia 63/ 64	 PLUGIN-III 25
30106	✓	✓	✓	✓	
30125	✓	✓	✓	✓	
304	✓				
51424	✓	✓	✓	✓	✓
57450	✓	✓	✓		
51440	✓	✓	✓	✓	✓
57440	✓	✓	✓	✓	✓
57450LW		✓	✓		✓
51450LW		✓	✓		✓
51440LW		✓	✓		✓
57440LW		✓	✓		✓

TYPE OF COIL	COIL CODE	
	CABLE ENTRY	
	1/2" NPT	M20X1.5
Terminal Box	16	19
FPJB Ex d	37	39
Ex ia	63	64

ORDERING CODE VALVE

a

CONNECTION TYPE	
Ported	AV
Weld end	AW
Triclamp	AK
Flange end	AF
Pipe Weld	AP

b

DN-OPERATOR
12040
12050
12063
20050
20063
25050
25063
32063
32090
40063
40090
40110
50063
50090
50110
65090
65110
80110

c

FUNCTION	
Normally Closed, Pressure above plug, Single acting	F1
Normally Open, Pressure below plug, Single acting	F2
Normally Closed, BI-Directional, Single acting	F3
Normally Closed/ Normally Open, BI-Directional, Double acting	F4
Normally Closed, Pressure above plug, Single acting, Spring to close	F5
Normally Closed, Pressure below plug, Single acting	F6

d

PILOT CONNECTION	
Threaded	P1
NAMUR	P2

e

SEAL	SEAT	
Viton	PTFE	※
EPDM	PTFE	S1
Viton	PEEK	S17

f

PORT CONNECTION		
SIZE	BSP	NPT
1/2”	4G	4R
3/4”	6G	6R
1”	8G	8R
11/4”	10G	10R
11/2”	12G	12R
2”	16G	16R
21/2”	20G	20R
3”	24G	24R

g

BODY	
CF3M	※

h

PILOT VALVE	TYPE	CODE
NIL	-	※
3/2 NAMUR	30106	01
5/2 NAMUR Single Solenoid	51424	02
5/2 NAMUR Double Solenoid	57450	03
3/2 Body ported	30125	04
3/2 Direct mount valve	304	05
5/2 Body ported Single Solenoid	51440	06
5/2 Body ported Double Solenoid	57440	07

Note : Port connection should be selected only for valve type ‘AV’

- ※ Do not specify when opted for
- Pilot valve optional 01,02 or 03 should be opted for operator with NAMUR port connection (P2)
- Model in bold prints are preferred valve - operator combination
- 5/2 Body ported Single/ Double Solenoid valve shall be supplied loose
- Kindly specify operating voltage, current and Solenoid enclosure when opted for pilot valve
- Select PEEK SEAT for media temperature up to 220 °C
- Specify port connection ‘300’ when opted for class 300RF flange connection

ORDERING EXAMPLE

AV25050-F2-P2-S1-8G
25 NB Angle Seat, Normally Open, pressure below Plug Single Acting Valve, having 1” BSP (f) threaded port Connections, Operated with 50 Ø operator having NAMUR pilot ports, EPDM O rings and Seals.

AV40090-F1-P1-12G-04-24VDC-16
40 NB Angle Seat, Normally Closed pressure above Plug Single Acting Valve, having 11/2” BSP (f) threaded port connections, Operated with 90 Ø operator having threaded pilot ports, Viton O rings and Seals, fitted with 3/2 body ported pilot valve Type 30125, with 24 VDC Terminal Box solenoid having cable entry 1/2” NPT

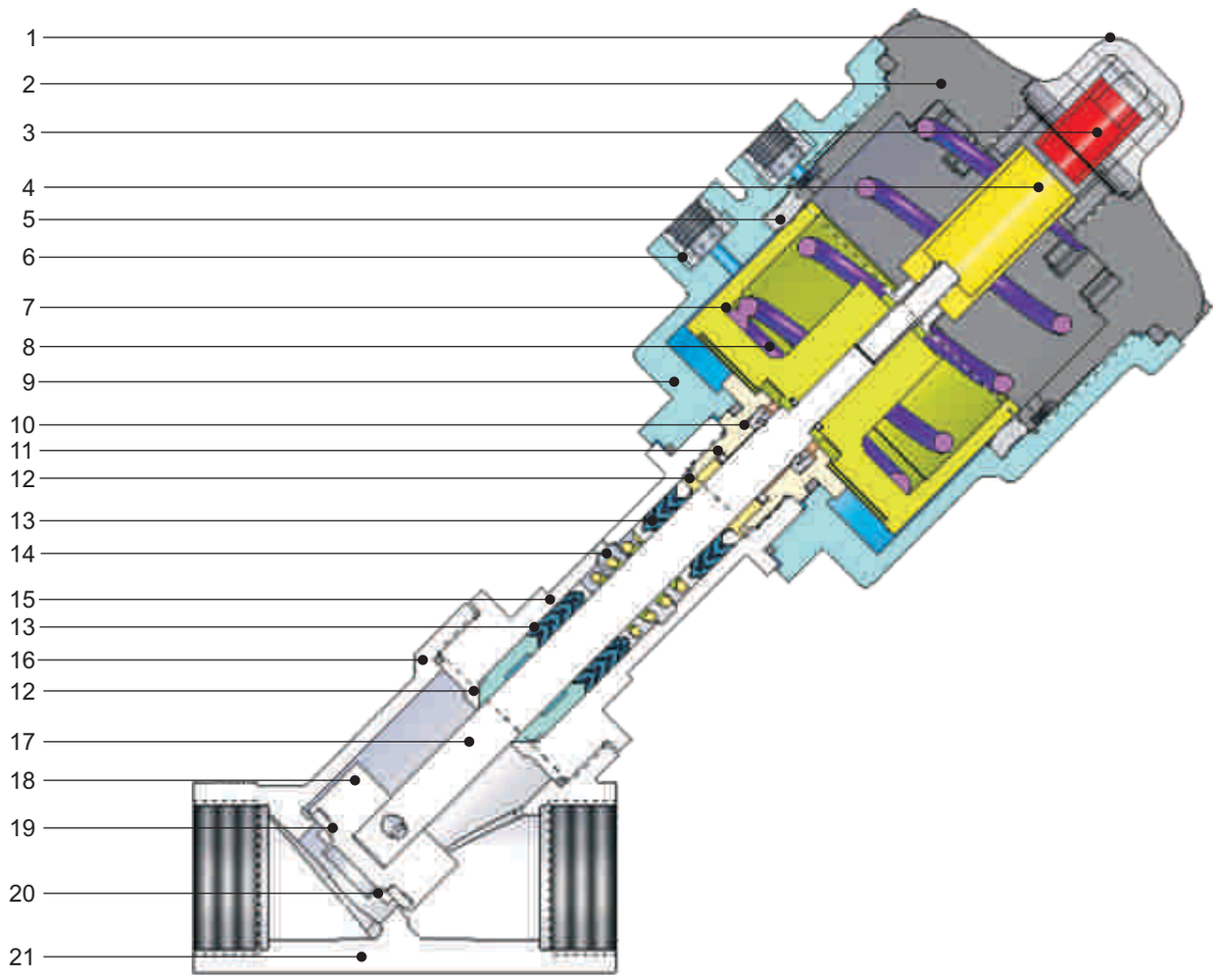
AF40090-F1-P1-300
40 NB Angle Seat Valve, Normally Closed, Pressure above Plug, Single Acting Valve, having 40 NB, Class 300RF flange connection operated with 90 Ø operated having threaded pilot ports and having Viton O rings and seals.

Note : Models in bold prints are preferred valve size, operator combination

⚠ Select 5/2 solenoid valve type 02, 03, 06 or 07 when function type F5 is opted.

Specifications are subject to change without notice

ORDERING CODE



Pos. No.	Description	Material
1	Indicator Dome	PC
2	Operator Cover	Nylon Glass Filled
3	Closed Indicator	ABS
4	Open Indicator	ABS
5	Piston Seal	Viton / EPDM
6	Insert	SS 316
7	Piston	Aluminium
*8	Piston Spring	Carbon Steel
		(IS 4454 GR II)
*8a	Piston Inner Spring	Carbon Steel
		(IS 4454 GR II)
9	Operator	Nylon Glass Filled
10	Shaft Seal	Viton/ EPDM

Pos. No.	Description	Material
11	Hex	Brass
12	Shaft Bearing	PTFE/ PEEK
13	Gland Packing	PTFE
14	Gland Spring	SS
15	Sleeve	CF3M (SS 316L Cast),
		(1.4435)
16	Body Seal	Graphoil
17	Shaft	SS 316L (1.4404)
18	Plug	SS 316L (1.4404)
19	Seat Seal	PTFE/ PEEK
20	Pressure Disc	SS 316L (1.4404)
21	Body	CF3M (SS 316L Cast),
		(1.4435)

*(Where applicable)

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ORDERING CODE SPARES, TOOLS

DESCRIPTION OF SPARES

- **Operator Assembly :** Consists of Indicator Dome(I), Operator Cover (2), Closed Indicator (3), Open Indicator (4), Operator (9), Piston (7), Piston Spring (8 and 8a)*, Hex (11), Shaft Seal (10) All O rings of the Operator
- **Piston Seal and O Ring set :** Consists of Piston Seal (5), Shaft Seal (10) and all O rings of the Operator Piston Spring Set consists of Piston Spring (8 and 8a)*
- **Repair Kit :** Consists of all O ring of the Operator and Sleeve, Piston Seal (5), Shaft (10) and all Gland Packings (13), Body Seal (16), Shaft Bearing (12), Gland Spring (14), Shaft (17), and Seat (18) duly assembled and Piston Spring (8 and 8a)*
- **Seat Assembly :** Consists of seat (18) duly assembled with seat seal (19) and pressure disc(20), Shaft (17) and Body Seal (16)

Note : Replace body seal (part no.16), in case if sleeve (part no.15) is opened
Refer to construction on page 18
*where applicable

a

SPARE KIT	
Operator Assembly	99
Piston seal and O ring Set	98
Repair Kit	97
Seat Assembly	96

b

DN-OPERATOR
12040
12050
12063
20050
20063
25050
25063
32063
32090
40063
40090
40110
50063
50090
50110
65090
65110
80110

c

FUNCTION	
Normally Closed, Pressure above plug, Single acting	F1
Normally Open, Pressure below plug, Single acting	F2
Normally Closed, BI-Directional, Single acting	F3
Normally Closed / Normally Open, BI-Directional, Double acting	F4
Normally Closed, Pressure above plug, Single acting, Spring to close	F5
Normally Closed, Pressure below plut, Single acting	F6

d

PILOT CONNECTION	
THREADED	P1
NAMUR	P2

e

SEAL	SEAT	
Viton	PTFE	※
EPDM	PTFE	S1
Viton	PEEK	S17

f

BODY	
CF3M	※

Note : ※ Do not specify when opted for

ORDERING EXAMPLE

99-32090-F1-P1
90 Ø Operator Assembly having threaded pilot ports, viton seals and O rings suitable for 32 NB Angle Seat Normally Closed, pressure above Plug Single Acting Valve.

TOOL KIT

TOOL FOR COVER OPENING

PHOTO - 1

PHOTO - 2

CODE	TOOL (Refer Photo - 1)
T40	For opening Ø40 operator
T50	For opening Ø50 operator
T63	For opening Ø63 operator
T90	For opening Ø90 operator
T110	For opening Ø110 operator

Note : For opening cover of the operator use special tool to avoid damage, ensure that operator is held in the soft JAW vice (Refer photo 2)

ORDERING EXAMPLE

T50
Cover opening tool for operator Ø50

Note : Models in bold prints are preferred valve size, operator combination

Specifications are subject to change without notice

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Engineering For The Future

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