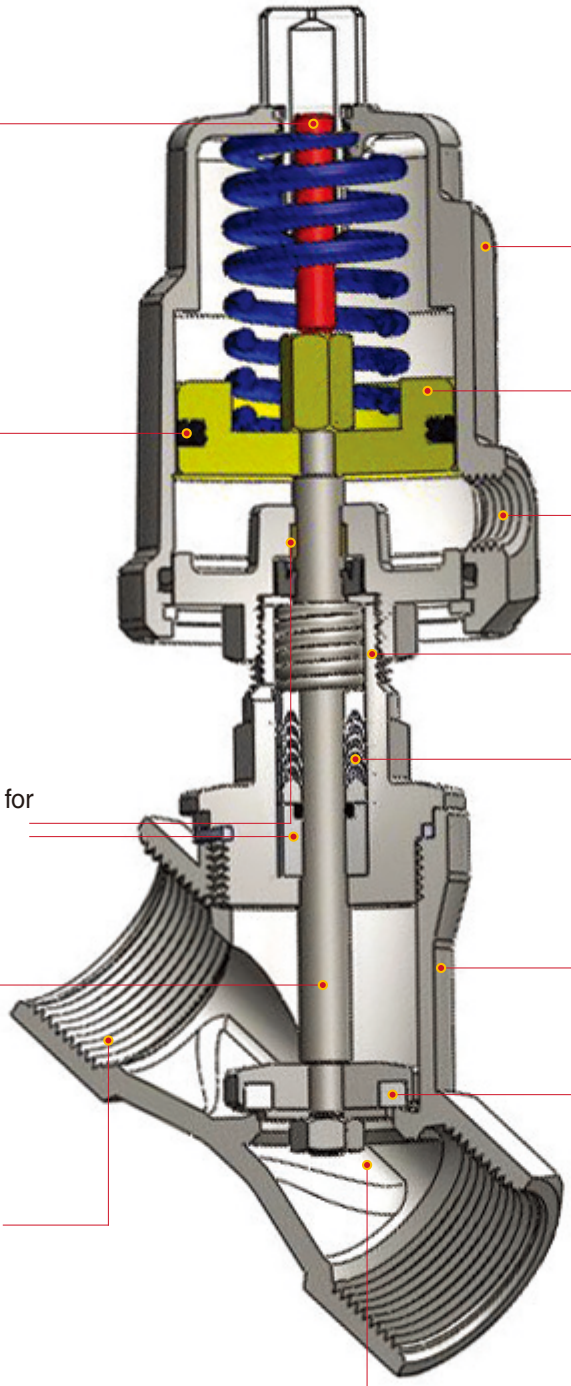
Parker Fluid Control Angle Body Valves

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Parker

ENGINEERING YOUR SUCCESS.

Angle Body Valve Key Features



RED Position indicator on all models

Piston ring FKM

Dual stem bearings for “true” guidance and superior life

Precision roller-burnished 316SS stem for long life

BSP standard, NPT and others available

Housing is 304 SS standard, or optional Aluminum

Brass Piston

Pilot port available in BSP and NPT 1/8” and 1/4”

Spring loading on packing glands for tight sealing

Chevron Seals-PTFE

Body 304SS or 316L SS for excellent corrosive protection

PTFE seal provides resistance to aggressive fluids, high temperature and tight sealing

Water-hammer free flow under seat

Angle Body Valves

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SOLENOID VALVES FOR CONTROLLING THE PA ANGLE BODY VALVES 24

3 Way Direct Acting Pilot Control Valves, Banjo Valve 25

Introduction

The portfolio is endowed with numerous benefi ts including:

- A full-line of normally closed and normally open valves ranging in size from 3/8 inch to 2 1/2 inches.
- State of the art performance for long life, ease of service and tighter system integrity.
- Operating pressures up to 16 Bar (232 psi).
- Suitable for temperatures ranging from -10°C to 180°C /14°F to 356°F.
- Handles millions of cycles for high temperature and aggressive media.
- Separate Pilot Valves for both AC & DC requirements.
- Complete line of high temperature watertight coil designs suitable for all pilot control valves.
- Spare Parts Kits are available for main seat replacement.

Angle body valves are suitable for many process & industrial application requirements. Valve applications include but are not limited to the following areas:

- Food and Beverage Processing:
  - Brewery
  - water, steam, pasteurization, glycol solutions for cooling, de-aeration processes, blending, carbonation, thermal processes
  - Bottling & bottle washing equipment
  - “Clean-in-Place” systems
  - Dairy product processing
- Water Technology & Treatment:
  - Filtration technology
  - Pollution control equipment
- Textile Industry:
  - Bleaching, dyeing & drying equipment
  - Steam, water & additives requirements
- Cooling systems on injection molding machines
- Pharmaceutical & cosmetic industry
- Chemical Process technology
- Refrigeration & Cooling heat exchangers
- Sterilizers - steam supply up to 180°C (356°F)
- Water applications: Mining, Cement / Concrete Systems, Pulp & Paper
- General industrial applications of aggressive fluids with stainless materials
- Industrial Laundry Equipment
- Industrial Air Dryers

Series PA - 2/2 - Way Angle Body Valves
3/8” to 2 1/2” BSP 16 Bar, 232 psi

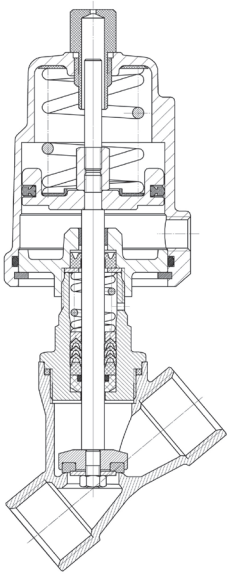
VALVE FEATURES

- Compact design, high flow rates
- Visual position indicator standard
- For temperatures from 14°F to 356°F / -10°C to 180°C
- Working pressures up to 16 Bar, 232 psi
- Dampened closing anti-water hammer design (fluid under seat)
- Metal actuator housing for exceptional durability in steam & mildly aggressive applications
- Valves satisfy the Pressure Equipment Directive 97/23/EC
- Mountable in any position
- Tight shut-off and Long Service Life
- Valve seats and seal components fully repairable

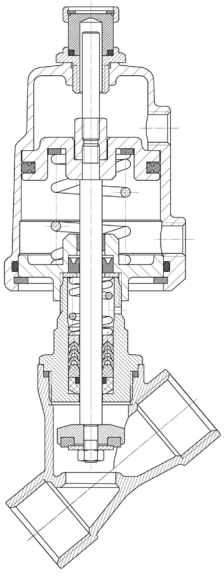
Technical Specifications:

Body Material	304 SS or 316 SS
Function	2/2 NC, NO, NC(antiwater hammer), double acting (with spring)
Nominal sizes	DN10-DN65, 3/8" to 2 1/2"
Connections	Threads- BSP,BSPT,NPT,NPTF Welded- ISO1127/4200, DIN 11850.1, DIN 11850.2, DIN 11850.3, SMS3008, ASME BPE Flanges, ANSI, DIN, JIS
Weld end surface finish	Standard Ra 1.6um
Max Working Pressure	16 BAR, 232 PSI
Differential Pressure	See Specification Charts
Pilot Pressure	3 Bar to 10 Bar. 43.5 PSI to 145 PSI
Actuator Material	304 SS, or Aluminum
Maximum Fluid Temp	-10°C to 180°C, 14°F to 356°F
Optional	
Ambient Temperature	-10°C to 60°C, 14°F to 140°F
Seat Seal material	PTFE/RTFE
Packing Gland	PTFE. PTFE and Carbon
Viscosity	Maximum 600mm2/s(600cSt, 80° E, 2700 SSU
Vacuum	maximum 0.0295 mercury (Hg)
Leakage	ANSI Class VI shutoff
Installation	Any Position
Optical Position Indicator	Standard on all sizes
Pilot Control Media	Air, Neutral Gas, Water
Fluids handled	Inert gases, hot water, oils, steam, aggressive and corrosive fluids
Pilot Port Size	1/8" for 32,40,50, & 63 mm actuators, 1/4" for 80, 100 mm actuators

Normally Closed Valve



Normally Open Valve



SERIES PA - NORMALLY CLOSED VALVES - FLOW DIRECTION OVER SEAT

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar PSI	Model Number	Net Weight kgs
DN10	3/8"	13	40	4.7	0-16	0-232	See diagram below	PA10S1G3S040S	0.78
			50	4.7	0-16	0-232		PA10S1G3S050S	1.01
DN15	1/2"	13	40	4.7	0-16	0-232		PA15S1G4S040S	0.80
			50	4.7	0-16	0-232		PA15S1G4S050S	1.03
DN20	3/4"	18	50	9.5	0-16	0-232		PA20S1G5S050S	1.06
DN25	1"	24	50	18.1	0-16	0-232		PA25S1G6S050S	1.38
			63	18.1	0-16	0-232		PA25S1G6S063S	2.05
DN32	1-1/4"	31	63	23.1	0-16	0-232		PA32S1G7S063S	2.40
DN40	1-1/2"	35	63	32.9	0-16	0-232		PA40S1G8S063S	2.75
DN50	2"	45	63	52.8	0-10	0-145		PA50S1G9S063S	3.50
			80	52.8	0-16	0-232		PA50S1G9S080S	4.62
			100	52.8	0-16	0-232		PA50S1G9S100S	5.16
DN65	2-1/2"	65	100	82	0-10	0-145		PA65S1GTS100S	8.65

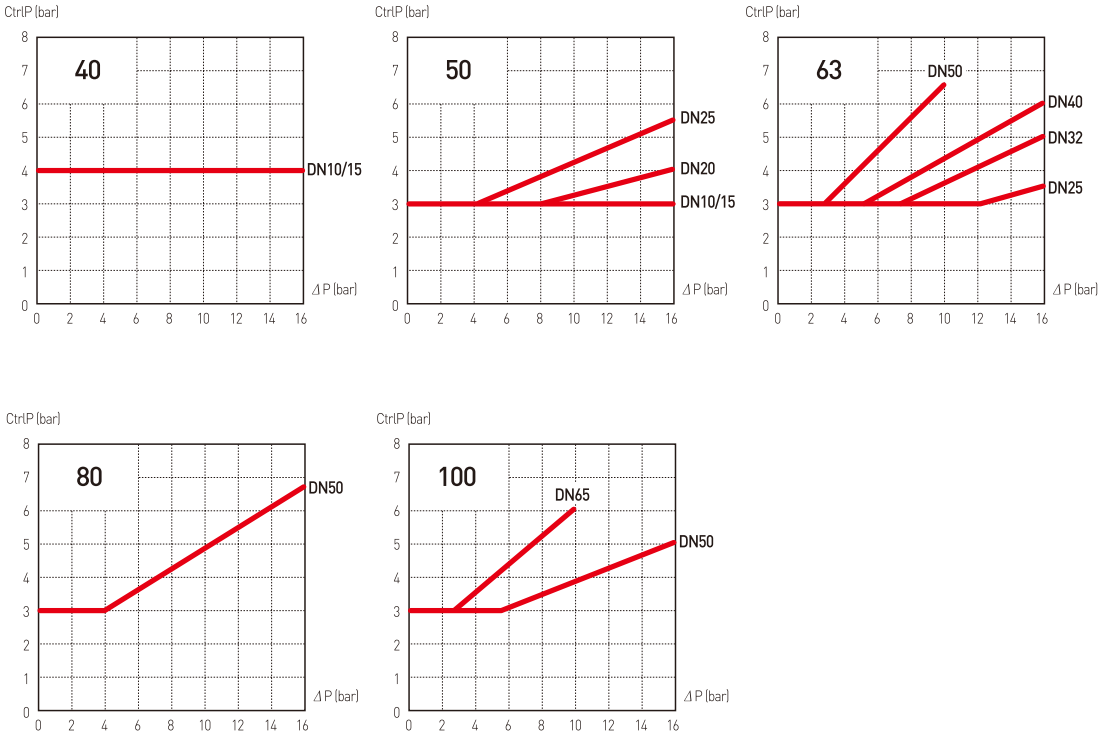
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar PSI	Model Number	Net Weight kgs
DN10	3/8"	13	40	4.7	0-16	0-232	See diagram below	PA10S1G3R040S	0.78
			50	4.7	0-16	0-232		PA10S1G3R050S	1.01
DN15	1/2"	13	40	4.7	0-16	0-232		PA15S1G4R040S	0.80
			50	4.7	0-16	0-232		PA15S1G4R050S	1.03
DN20	3/4"	18	50	9.5	0-16	0-232		PA20S1G5R050S	1.06
DN25	1"	24	50	18.1	0-16	0-232		PA25S1G6R050S	1.38
			63	18.1	0-16	0-232		PA25S1G6R063S	2.05
DN32	1-1/4"	31	63	23.1	0-16	0-232		PA32S1G7R063S	2.40
DN40	1-1/2"	35	63	32.9	0-16	0-232		PA40S1G8R063S	2.75
DN50	2"	45	63	52.8	0-10	0-145		PA50S1G9R063S	3.50
			80	52.8	0-16	0-232		PA50S1G9R080S	4.62
			100	52.8	0-16	0-232		PA50S1G9R100S	5.16
DN65	2-1/2"	65	100	82	0-10	0-145		PA65S1GTR100S	8.65

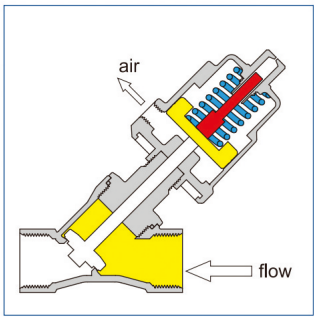
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

Control Pressure & Operating Pressure Charts for the Normally Closed valves with 304 SS actuators

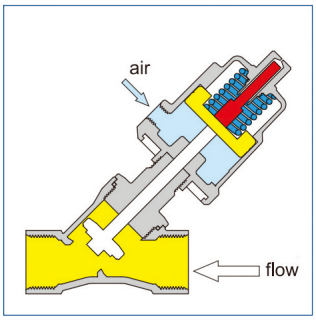


Flow Charts

Normally Closed Valve



Normally Open Valve



SERIES PA - NORMALLY CLOSED VALVES - FLOW DIRECTION OVER SEAT

Model Numbers Shown are BSP threads

Aluminum Actuator with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	See diagram below	PA10S1G3S050A	0.75
DN15	1/2"	13	50	4.7	0-16	0-232		PA15S1G4S050A	0.80
DN20	3/4"	18	50	9.5	0-16	0-232		PA20S1G5S050A	0.90
DN25	1"	24	50	18.1	0-16	0-232		PA25S1G6S050A	1.27
			63	18.1	0-16	0-232		PA25S1G6S063A	1.65
DN32	1-1/4"	31	63	23.1	0-16	0-232		PA32S1G7S063A	1.89
DN40	1-1/2"	35	63	32.9	0-16	0-232		PA40S1G8S063A	2.15
DN50	2"	45	63	52.8	0-10	0-145		PA50S1G9S063A	2.98
			80	52.8	0-16	0-232		PA50S1G9S080A	3.56
			100	52.8	0-16	0-232		PA50S1G9S100A	4.75
DN65	2-1/2"	65	100	82	0-10	0-145		PA65S1GTS100A	5.50

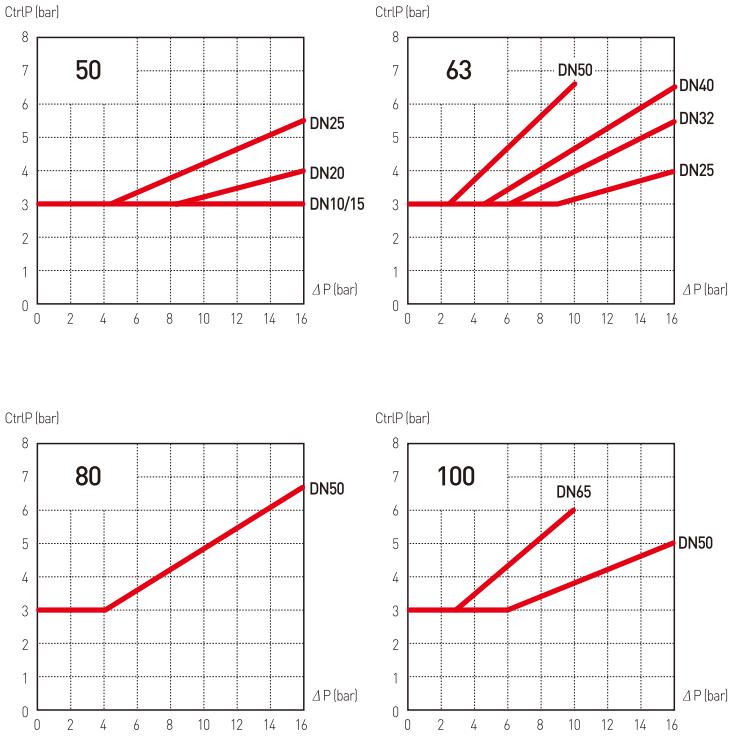
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

Aluminum Actuator with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	See diagram below	PA10S1G3R050A	0.75
DN15	1/2"	13	50	4.7	0-16	0-232		PA15S1G4R050A	0.80
DN20	3/4"	18	50	9.5	0-16	0-232		PA20S1G5R050A	0.90
DN25	1"	24	50	18.1	0-16	0-232		PA25S1G6R050A	1.27
			63	18.1	0-16	0-232		PA25S1G6R063A	1.65
DN32	1-1/4"	31	63	23.1	0-16	0-232		PA32S1G7R063A	1.89
DN40	1-1/2"	35	63	32.9	0-16	0-232		PA40S1G8R063A	2.15
DN50	2"	45	63	52.8	0-10	0-145		PA50S1G9R063A	2.98
			80	52.8	0-16	0-232		PA50S1G9R080A	3.56
			100	52.8	0-16	0-232		PA50S1G9R100A	4.75
DN65	2-1/2"	65	100	82	0-10	0-145		PA65S1GTR100A	5.50

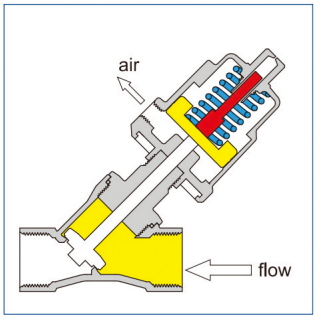
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

Control Pressure & Operating Pressure Charts for the Normally Closed valves with aluminum actuators

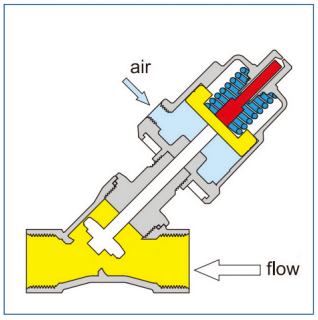


Flow Charts

Normally Closed Valve



Normally Open Valve



SERIES PA - NORMALLY OPEN VALVES - FLOW DIRECTION OVER SEAT

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential		Min.Pilot Control Pressure Range		Model Number	Net Weight kgs
					Bar	PSI	Bar	PSI		
DN10	3/8"	13	50	4.7	0-16	0-232	3.5	51	PA10S2G3S050S	1.0
DN15	1/2"	13	50	4.7	0-16	0-232	3.5	51	PA15S2G4S050S	1.03
DN20	3/4"	18	50	9.5	0-16	0-232	3.5	51	PA20S2G5S050S	1.06
DN25	1"	24	63	18.1	0-16	0-232	4.5	66	PA25S2G6S063S	2.05
DN32	1-1/4"	31	63	23.1	0-14	0-203	4.5	66	PA32S2G7S063S	2.40
DN40	1-1/2"	35	63	32.9	0-11	0-160	4.5	66	PA40S2G8S063S	2.75
DN50	2"	45	63	52.8	0-6	0-87	5	73	PA50S2G9S063S	3.50
			80	52.8	0-12	0-174	5	73	PA50S2G9S080S	4.62

For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential		Min.Pilot Control Pressure Range		Model Number	Net Weight kgs
					Bar	PSI	Bar	PSI		
DN10	3/8"	13	50	4.7	0-16	0-232	3.5	51	PA10S2G3R050S	1.0
DN15	1/2"	13	50	4.7	0-16	0-232	3.5	51	PA15S2G4R050S	1.03
DN20	3/4"	18	50	9.5	0-16	0-232	3.5	51	PA20S2G5R050S	1.06
DN25	1"	24	63	18.1	0-16	0-232	4.5	66	PA25S2G6R063S	2.05
DN32	1-1/4"	31	63	23.1	0-14	0-203	4.5	66	PA32S2G7R063S	2.40
DN40	1-1/2"	35	63	32.9	0-11	0-160	4.5	66	PA40S2G8R063S	2.75
DN50	2"	45	63	52.8	0-6	0-87	5	73	PA50S2G9R063S	3.50
			80	52.8	0-12	0-174	5	73	PA50S2G9R080S	4.62

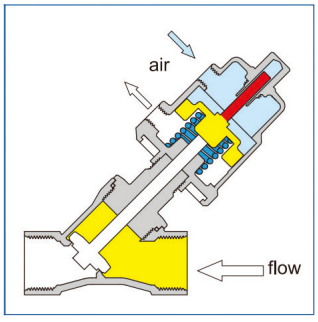
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

Control Pressure & Operating Pressure

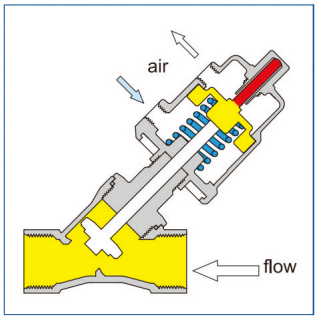
Charts do not apply for Normally Open valves. A minimum pressure as noted above is all that is required, up to the maximum listed.

Flow Charts

Normally Closed Valve



Normally Open Valve



SERIES PA - NORMALLY OPEN VALVES - FLOW DIRECTION OVER SEAT

Model Numbers Shown are BSP threads

Aluminum Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Min.Pilot Control Pressure Range Bar	Min.Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	3.5	51	PA10S2G3S050A	
DN15	1/2"	13	50	4.7	0-16	0-232	3.5	51	PA15S2G4S050A	
DN20	3/4"	18	50	9.5	0-16	0-232	3.5	51	PA20S2G5S050A	
DN25	1"	24	63	18.1	0-16	0-232	4.5	66	PA25S2G6S063A	
DN32	1-1/4"	31	63	23.1	0-14	0-232	4.5	44	PA32S2G7S063A	
DN40	1-1/2"	35	63	32.9	0-11	0-232	4.5	44	PA40S2G8S063A	
DN50	2"	45	63	52.8	0-6	0-87	5.0	44	PA50S2G9S063A	
			80	52.8	0-12	0-174	5.0	44	PA50S2G9S080A	

For NPT porting, change "G" to "N" in 7th position To obtain Cv multiply Kv by 1.16 To obtain lbs., multiply Kgs by 2.2

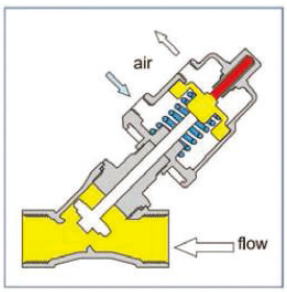
Aluminum Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Min.Pilot Control Pressure Range Bar	Min.Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	3.5	51	PA10S2G3R050A	
DN15	1/2"	13	50	4.7	0-16	0-232	3.5	51	PA15S2G4R050A	
DN20	3/4"	18	50	9.5	0-16	0-232	3.5	51	PA20S2G5R050A	
DN25	1"	24	63	18.1	0-16	0-232	4.5	66	PA25S2G6R063A	
DN32	1-1/4"	31	63	23.1	0-14	0-232	4.5	44	PA32S2G7R063A	
DN40	1-1/2"	35	63	32.9	0-11	0-232	4.5	44	PA40S2G8R063A	
DN50	2"	45	63	52.8	0-6	0-87	5.0	44	PA50S2G9R063A	
			80	52.8	0-12	0-174	5.0	44	PA50S2G9R080A	

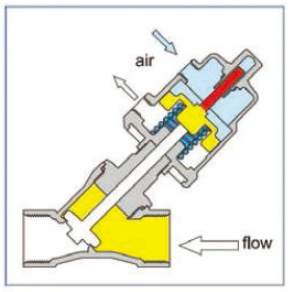
For NPT porting, change "G" to "N" in 7th position To obtain Cv multiply Kv by 1.16 To obtain lbs., multiply Kgs by 2.2

Flow Charts

Valve Open



Valve Closed



SERIES PA - NORMALLY CLOSED VALVES - FLOW DIRECTION UNDER SEAT

ANTI WATER HAMMER CONSTRUCTION

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential		Min.Pilot Control Pressure Range		Model Number	Net Weight kgs
					Bar	PSI	Bar	PSI		
DN10	3/8"	13	50	4.7	0-16	0-232	4.5	66	PA10SAG3S050S	1.01
DN15	1/2"	13	50	4.7	0-16	0-232	4.5	66	PA15SAG4S050S	1.03
DN20	3/4"	18	50	9.5	0-10	0-145	4.5	66	PA20SAG5S050S	1.06
DN25	1"	24	63	18.1	0-8	0-116	4.5	66	PA25SAG6S063S	2.05
DN32	1-1/4"	31	80	23.1	0-11	0-160	4	58	PA32SAG7S080S	3.82
DN40	1-1/2"	35	80	32.9	0-8	0-116	4	58	PA40SAG8S080S	4.07
			100	32.9	0-16	0-232	4	58	PA40SAG8S100S	4.61
DN50	2"	45	100	52.8	0-9	0-131	4	58	PA50SAG9S100S	5.16

For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential		Min.Pilot Control Pressure Range		Model Number	Net Weight kgs
					Bar	PSI	Bar	PSI		
DN10	3/8"	13	50	4.7	0-16	0-232	4.5	66	PA10SAG3R050S	1.01
DN15	1/2"	13	50	4.7	0-16	0-232	4.5	66	PA15SAG4R050S	1.03
DN20	3/4"	18	50	9.5	0-10	0-145	4.5	66	PA20SAG5R050S	1.06
DN25	1"	24	63	18.1	0-8	0-116	4.5	66	PA25SAG6R063S	2.05
DN32	1-1/4"	31	80	23.1	0-11	0-160	4	58	PA32SAG7R080S	3.82
DN40	1-1/2"	35	80	32.9	0-8	0-116	4	58	PA40SAG8R080S	4.07
			100	32.9	0-16	0-232	4	58	PA40SAG8R100S	4.61
DN50	2"	45	100	52.8	0-9	0-131	4	58	PA50SAG9R100S	5.16

For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

SERIES PA - NORMALLY CLOSED VALVES - FLOW DIRECTION UNDER SEAT

ANTI WATER HAMMER CONSTRUCTION

Model Numbers Shown are BSP threads

Aluminum Actuator with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Min.Pilot Control Pressure Range Bar	Min.Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	4.5	66	PA10SAG3S050A	0.75
DN15	1/2"	13	50	4.7	0-16	0-232	4.5	66	PA15SAG4S050A	0.80
DN20	3/4"	18	50	9.5	0-10	0-145	4.5	66	PA20SAG5S050A	0.90
DN25	1"	24	63	18.1	0-8	0-116	4.5	66	PA25SAG6S063A	1.65
DN32	1-1/4"	31	80	23.1	0-11	0-160	4	58	PA32SAG7S080A	2.80
DN40	1-1/2"	35	80	32.9	0-8	0-116	4	58	PA40SAG8S080A	3.10
			100	32.9	0-16	0-232	4	58	PA40SAG8S100A	4.15
DN50	2"	45	100	52.8	0-9	0-131	4	58	PA50SAG9S100A	4.75

For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

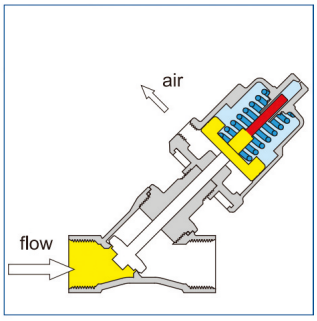
Aluminum Actuator with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Min.Pilot Control Pressure Range Bar	Min.Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	4.5	66	PA10SAG3R050A	0.75
DN15	1/2"	13	50	4.7	0-16	0-232	4.5	66	PA15SAG4R050A	0.80
DN20	3/4"	18	50	9.5	0-10	0-145	4.5	66	PA20SAG5R050A	0.90
DN25	1"	24	63	18.1	0-8	0-116	4.5	66	PA25SAG6R063A	1.65
DN32	1-1/4"	31	80	23.1	0-11	0-160	4	58	PA32SAG7R080A	2.80
DN40	1-1/2"	35	80	32.9	0-8	0-116	4	58	PA40SAG8R080A	3.10
			100	32.9	0-16	0-232	4	58	PA40SAG8R100A	4.15
DN50	2"	45	100	52.8	0-9	0-131	4	58	PA50SAG9R100A	4.75

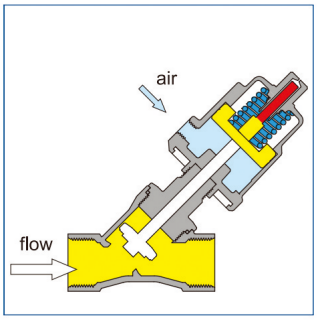
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

Flow Charts

Normally Closed Valve



Normally Open Valve



SERIES PA - NORMALLY OPEN VALVES - FLOW DIRECTION UNDER SEAT

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar	PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	See diagram below		PA10S3G3S050S	1.01
DN15	1/2"	13	50	4.7	0-16	0-232			PA15S3G4S050S	1.03
DN20	3/4"	18	50	9.5	0-16	0-232			PA20S3G5S050S	1.06
DN25	1"	24	63	15.5	0-16	0-232			PA25S3G6S063S	2.05
DN32	1-1/4"	31	80	23.1	0-16	0-232			PA32S3G7S080S	3.80
DN40	1-1/2"	35	80	31	0-16	0-232			PA40S3G8S080S	4.05
DN50	2"	45	80	50	0-16	0-232			PA50S3G9S080S	4.62

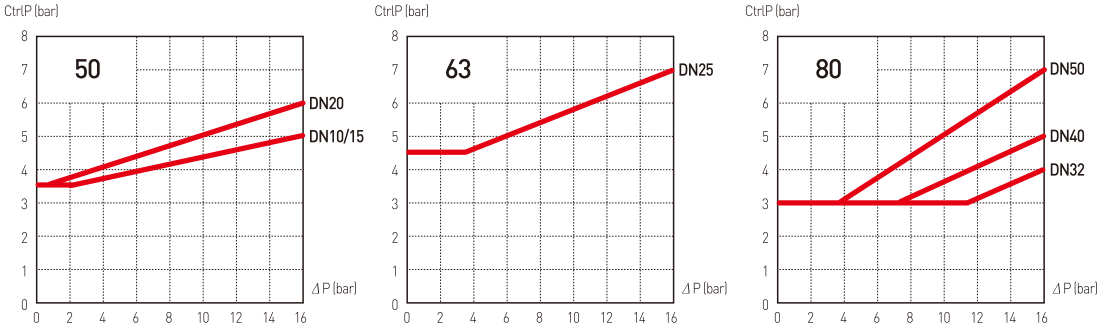
For NPT porting, change "G" to "N" in 7th position To obtain Cv multiply Kv by 1.16 To obtain lbs., multiply Kgs by 2.2

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar	PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	See diagram below		PA10S3G3R050S	1.01
DN15	1/2"	13	50	4.7	0-16	0-232			PA15S3G4R050S	1.03
DN20	3/4"	18	50	9.5	0-16	0-232			PA20S3G5R050S	1.06
DN25	1"	24	63	18.1	0-16	0-232			PA25S3G6R063S	2.05
DN32	1-1/4"	31	80	23.1	0-16	0-232			PA32S3G7R080S	3.80
DN40	1-1/2"	35	80	31	0-16	0-232			PA40S3G8R080S	4.05
DN50	2"	45	80	50	0-16	0-232			PA50S3G9R080S	4.62

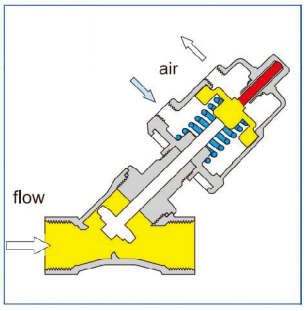
For NPT porting, change "G" to "N" in 7th position To obtain Cv multiply Kv by 1.16 To obtain lbs., multiply Kgs by 2.2

Control Pressure & Operating Pressure

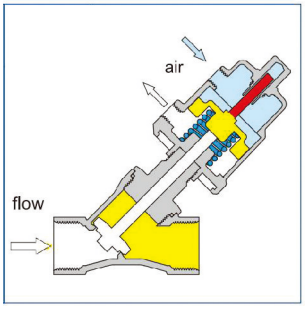


Flow Charts

Valve Open



Valve Closed



SERIES PA - NORMALLY OPEN VALVES - FLOW DIRECTION UNDER SEAT

Model Numbers Shown are BSP threads

Aluminum Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	See diagram below	PA10S3G3S050A	0.88
DN15	1/2"	13	50	4.7	0-16	0-232		PA15S3G4S050A	0.90
DN20	3/4"	18	50	9.5	0-16	0-232		PA20S3G5S050A	1.00
DN25	1"	24	63	15.5	0-16	0-232		PA25S3G6S063A	1.70
DN32	1-1/4"	31	80	23.1	0-16	0-232		PA32S3G7S080A	2.90
DN40	1-1/2"	35	80	31	0-16	0-232		PA40S3G8S080A	3.19
DN50	2"	45	80	50	0-16	0-232		PA50S3G9S080A	3.95

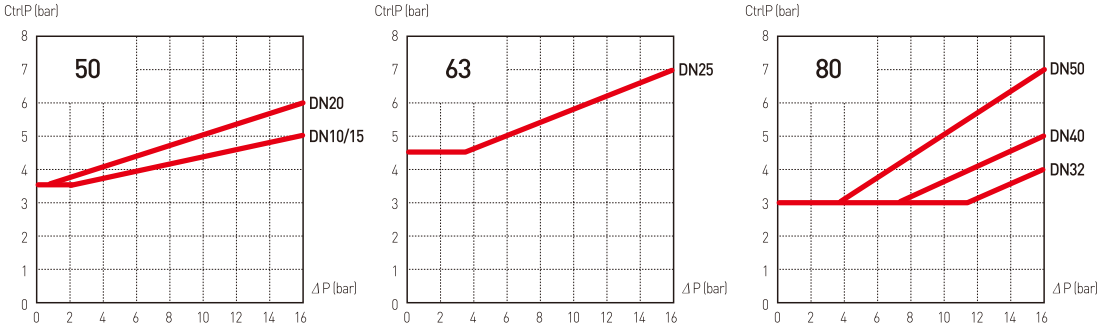
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply Kgs by 2.2

Aluminum Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar PSI	Model Number	Net Weight kgs
DN10	3/8"	13	50	4.7	0-16	0-232	See diagram below	PA10S3G3R050A	0.88
DN15	1/2"	13	50	4.7	0-16	0-232		PA15S3G4R050A	0.90
DN20	3/4"	18	50	9.5	0-16	0-232		PA20S3G5R050A	1.01
DN25	1"	24	63	15.5	0-16	0-232		PA25S3G6R063A	1.70
DN32	1-1/4"	31	80	23.1	0-16	0-232		PA32S3G7R080A	2.91
DN40	1-1/2"	35	80	31	0-16	0-232		PA40S3G8R080A	3.20
DN50	2"	45	80	50	0-16	0-232		PA50S3G9R080A	3.98

For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply Kgs by 2.2

Control Pressure & Operating Pressure



SERIES PA - COMPACT DESIGN NORMALLY CLOSED VALVES FLOW DIRECTION OVER SEAT

Media Temperature -10~100°c

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA10C3G3S032S	0.58
DN15	1/2"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA15C3G4S032S	0.60
DN20	3/4"	15	32	5.4	0-14	0-203	4.5-6	66-87	PA20C3G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA10C3G3R032S	0.58
DN15	1/2"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA15C3G4R032S	0.60
DN20	3/4"	15	32	5.4	0-14	0-203	4.5-6	66-87	PA20C3G5R032S	0.65

SERIES PA - COMPACT DESIGN NORMALLY CLOSED VALVES FLOW DIRECTION OVER SEAT **Media Temperature -10~180°c**

Model Numbers Shown are BSP threads

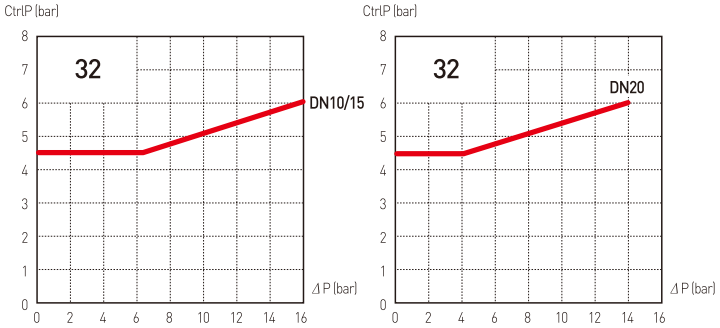
304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA10C1G3S032S	0.63
DN15	1/2"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA15C1G4S032S	0.65
DN20	3/4"	15	32	5.4	0-14	0-203	4.5-6	66-87	PA20C1G5S032S	0.71

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

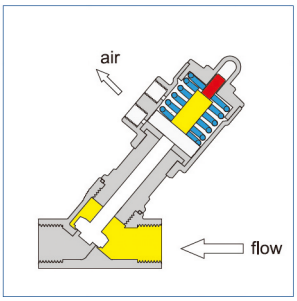
Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA10C1G3R032S	0.63
DN15	1/2"	13	32	4.7	0-16	0-232	4.5-6	66-87	PA15C1G4R032S	0.65
DN20	3/4"	15	32	5.4	0-14	0-203	4.5-6	66-87	PA20C1G5R032S	0.71

Control Pressure & Operating Pressure Charts

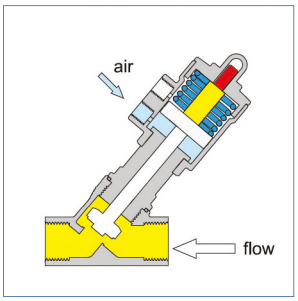


Flow Charts

Normally Closed Valve



Normally Open Valve



SERIES PA - COMPACT DESIGN NORMALLY CLOSED VALVES FLOW DIRECTION UNDER SEAT

Media Temperature -10~100°c

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	5-6	73-87	PA10C4G3S032S	0.58
DN15	1/2"	13	32	4.7	0-6	0-87	5-6	73-87	PA15C4G4S032S	0.60
DN20	3/4"	15	32	5.4	0-4	0-58	5-6	73-87	PA20C4G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	5-6	73-87	PA10C4G3R032S	0.58
DN15	1/2"	13	32	4.7	0-6	0-87	5-6	73-87	PA15C4G4R032S	0.60
DN20	3/4"	15	32	5.4	0-4	0-58	5-6	73-87	PA20C4G5R032S	0.65

SERIES PA - COMPACT DESIGN NORMALLY CLOSED VALVES FLOW DIRECTION UNDER SEAT **Media Temperature -10~180°c**

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	5-6	73-87	PA10C2G3S032S	0.63
DN15	1/2"	13	32	4.7	0-6	0-87	5-6	73-87	PA15C2G4S032S	0.65
DN20	3/4"	15	32	5.4	0-4	0-58	5-6	73-87	PA20C2G5S032S	0.71

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	5-6	73-87	PA10C2G3R032S	0.63
DN15	1/2"	13	32	4.7	0-6	0-87	5-6	73-87	PA15C2G4R032S	0.65
DN20	3/4"	15	32	5.4	0-4	0-58	5-6	73-87	PA20C2G5R032S	0.71

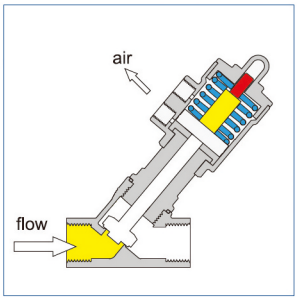
For all Compact Design valves on pages 10-11 the following applies:
For NPT porting, change "G" to "N" in 7th position
To obtain Cv multiply Kv by 1.16
To obtain lbs., multiply kgs by 2.2

Control Pressure & Operating Pressure Charts

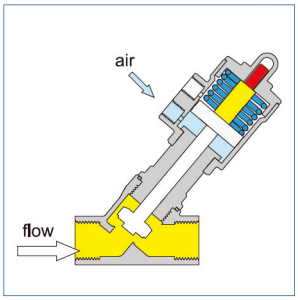
Charts do not apply for valves with flow direction under the seat. A minimum pressure as noted above is all that is required, up to the maximum listed.

Flow Charts

Normally Closed Valve



Normally Open Valve



SERIES PA - COMPACT DESIGN NORMALLY OPEN VALVES FLOW DIRECTION OVER SEAT

Media Temperature -10~100°c

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar	PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	5 -10	72.5-145	PA10J3G3S032S	0.58
DN15	1/2"	13	32	4.7	0-16	0-232	5 -10	72.5-145	PA15J3G4S032S	0.6
DN20	3/4"	15	32	5.4	0-10	0-145	5 -10	72.5-145	PA20J3G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar	PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	5 -10	72.5-145	PA10J3G3R032S	0.58
DN15	1/2"	13	32	4.7	0-16	0-232	5 -10	72.5-145	PA15J3G4R032S	0.60
DN20	3/4"	15	32	5.4	0-10	0-145	5 -10	72.5-145	PA20J3G5R032S	0.65

SERIES PA - COMPACT DESIGN NORMALLY OPEN VALVES FLOW DIRECTION OVER SEAT

Media Temperature -10~180°c

Model Numbers Shown are BSP threads

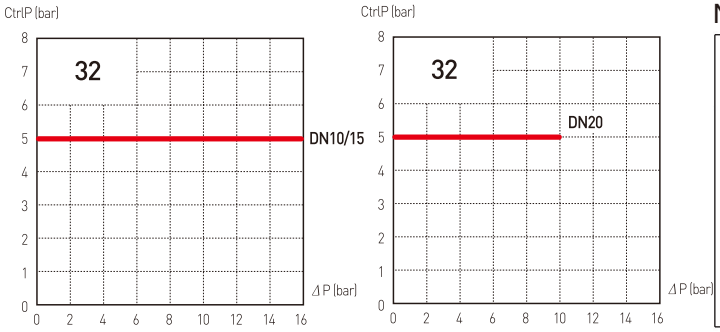
304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar	PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	5-10	72.5-145	PA10J1G3S032S	0.63
DN15	1/2"	13	32	4.7	0-16	0-232	5-10	72.5-145	PA15J1G4S032S	0.65
DN20	3/4"	15	32	5.4	0-10	0-145	5-10	72.5-145	PA20J1G5S032S	0.71

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

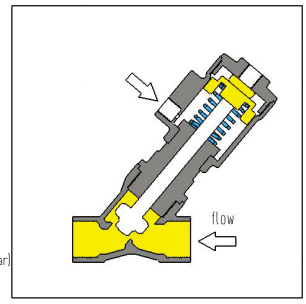
Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	PSI	Pilot Control Pressure Range Bar	PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-16	0-232	5-10	72.5-145	PA10J1G3R032S	0.63
DN15	1/2"	13	32	4.7	0-16	0-232	5-10	72.5-145	PA15J1G4R032S	0.65
DN20	3/4"	15	32	5.4	0-10	0-145	5-10	72.5-145	PA20J1G5R032S	0.71

Control Pressure & Operating Pressure Charts

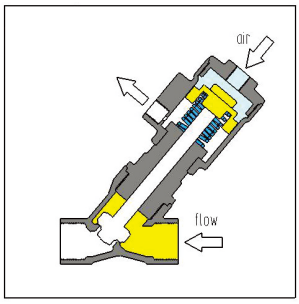


Flow Charts

Normally Open Valve



Normally Closed Valve



SERIES PA - COMPACT DESIGN NORMALLY OPEN VALVES FLOW DIRECTION UNDER SEAT

Media Temperature -10~100°c

Model Numbers Shown are BSP threads

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	4 -10	58-145	PA10J4G3S032S	0.58
DN15	1/2"	13	32	4.7	0-6	0-87	4 -10	58-145	PA15J4G4S032S	0.60
DN20	3/4"	15	32	5.4	0-4	0-87	4 -10	58-145	PA20J4G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	4 -10	58-145	PA10J4G3R032S	0.58
DN15	1/2"	13	32	4.7	0-6	0-87	4 -10	58-145	PA15J4G4R032S	0.60
DN20	3/4"	15	32	5.4	0-4	0-87	4 -10	58-145	PA20J4G5R032S	0.65

SERIES PA - COMPACT DESIGN NORMALLY OPEN VALVES FLOW DIRECTION UNDER SEAT **Media Temperature -10~180°c**

Model Numbers Shown are BSP threads

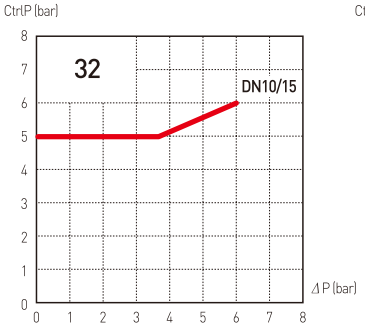
304 Stainless Steel Actuators with 304 Stainless Steel Bodies

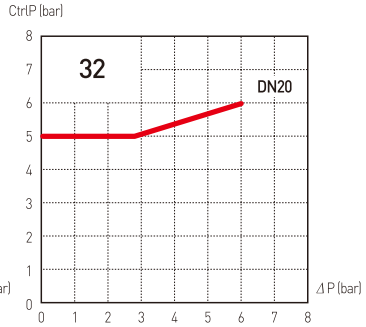
Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	4 -10	58-145	PA10J2G3S032S	0.63
DN15	1/2"	13	32	4.7	0-6	0-87	4 -10	58-145	PA15J2G4S032S	0.65
DN20	3/4"	15	32	5.4	0-4	0-87	4 -10	58-145	PA20J2G5S032S	0.71

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port size	Orifice (mm)	Actuator (mm)	Kv (m^3/h)	Operating Pressure Differential Bar	Operating Pressure Differential PSI	Pilot Control Pressure Range Bar	Pilot Control Pressure Range PSI	Model Number	Net Weight kgs
DN10	3/8"	13	32	4.7	0-6	0-87	4 -10	58-145	PA10J2G3R032S	0.63
DN15	1/2"	13	32	4.7	0-6	0-87	4 -10	58-145	PA15J2G4R032S	0.65
DN20	3/4"	15	32	5.4	0-4	0-87	4 -10	58-145	PA20J2G5R032S	0.71

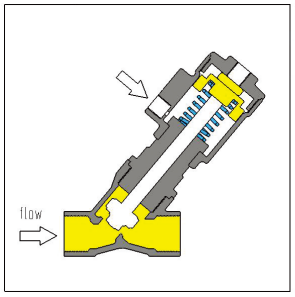
Control Pressure & Operating Pressure Charts



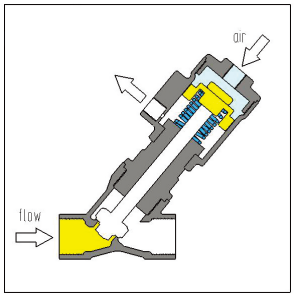


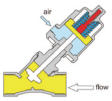
Flow Charts

Normally Open Valve

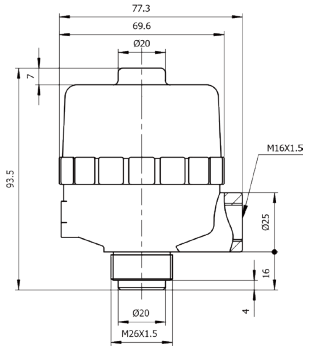


Normally Closed Valve





ACCESSORIES



Limit switch box

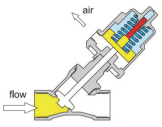
Technical Data

LED:	Green:Valve open Red:Valve closed Yellow:Voltage indicator
Ambient temp. :	-20 to +60 °C
Nominal voltage:	DC12V-0.11W DC24V-0.45W DC48V-1.8W

Supplied with two mechanical switches with LEDs and mounts on top of the valve operator in place of the standard visual indicator. As the valve works, cams on the limit switch box lengthening stem operate the switches to provide electrical of the valve position. the limit switch box can rotate 360°, assembly available on 40mm to100mm normally closed.

e.g., PA15SAN4S050A-LS

Type	Add suffix
Two mechanical	LS



Proximity Switch

Proximity switch compact and lightweight, assembly available on 40mm to 100mm normally closed.

Nominal voltage:	12 to 24 VDC
Ambient temp. :	-25 to +70 °C

e.g., PA15SAN4S050A-PS

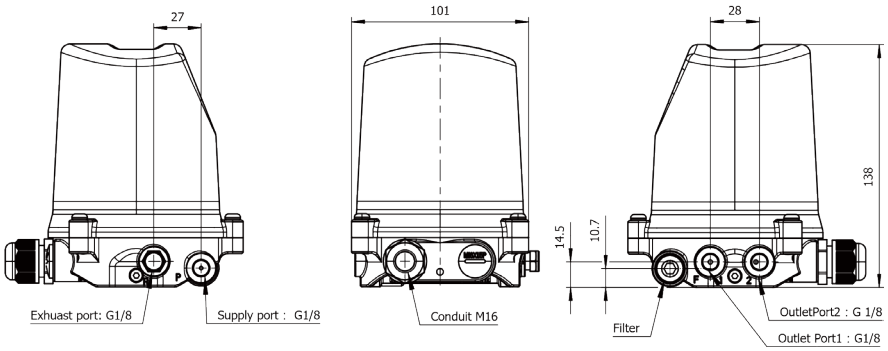
Type	Add suffix
Proximity switch	PS

SERIES PA-ACCESSORIES
STAINLESS STEEL AND ALUMINUM ACTUATOR

Media Temperature -10~100°c

Model Numbers Shown are BSP threads

Proportional



Technical Data		
Material:	cover body	PPS PC
Power Supply:		24VDC±10%
Input Signal:		0…20/4…20mA; 0…5/0…10V
Residual Ripple:		max.10%
Power Consumption:		4W
Output Signal:		4~20mA
Fail Option (Power/ Air):		Move to safe position(Safe)
Operating Temperature:		-10 to 60°C
Supply Pressure:		0.5~7bar
Pilot Air Ports:		G1/8 (Ø6mm tube)
Air Input Filter:		mesh aperture 5 micron
Flow Capacity (6 bar supplied):		20LPM
Filtering Particle Size:		5 Micron
Stroke:		5~40mm
Ingress Protection:		IP67
Electrical Connection:		2-M16X1.5 (with screw terminals)

Proportional valve can implement continuous position control by positon sensors, electric control system and microprocessor and also can realize continuous process function through internal functions.
Application medium: alcohol, oil, organic solvent, weak acid or weak base solution.

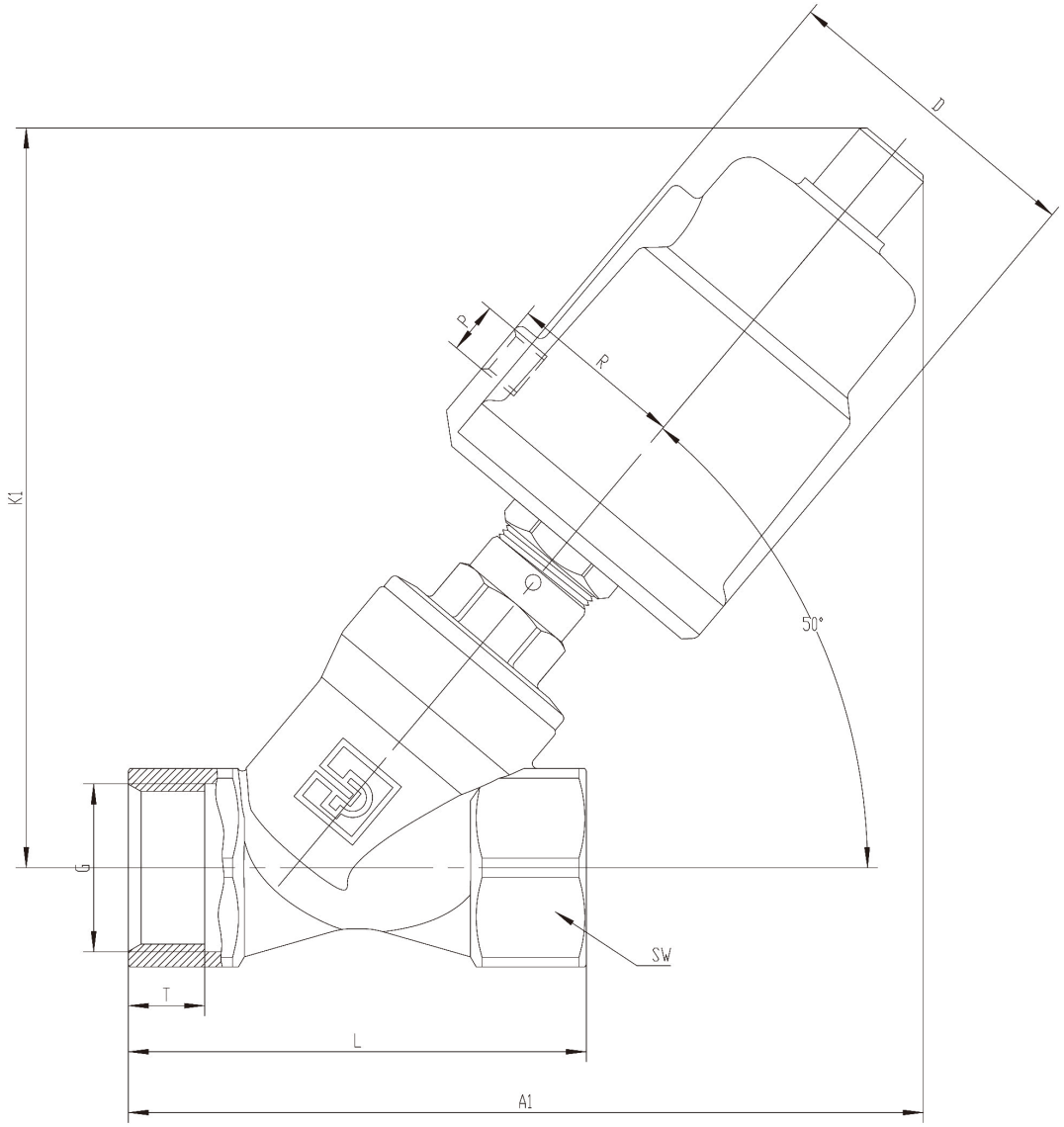
e.g., PA15SAN4S063A-PR

Type	Add suffix
Proportional	PR

SERIES PA Drawings and Dimensions

Stainless Steel Actuators

Sizes 40, 50, 63, 80, 100 mm

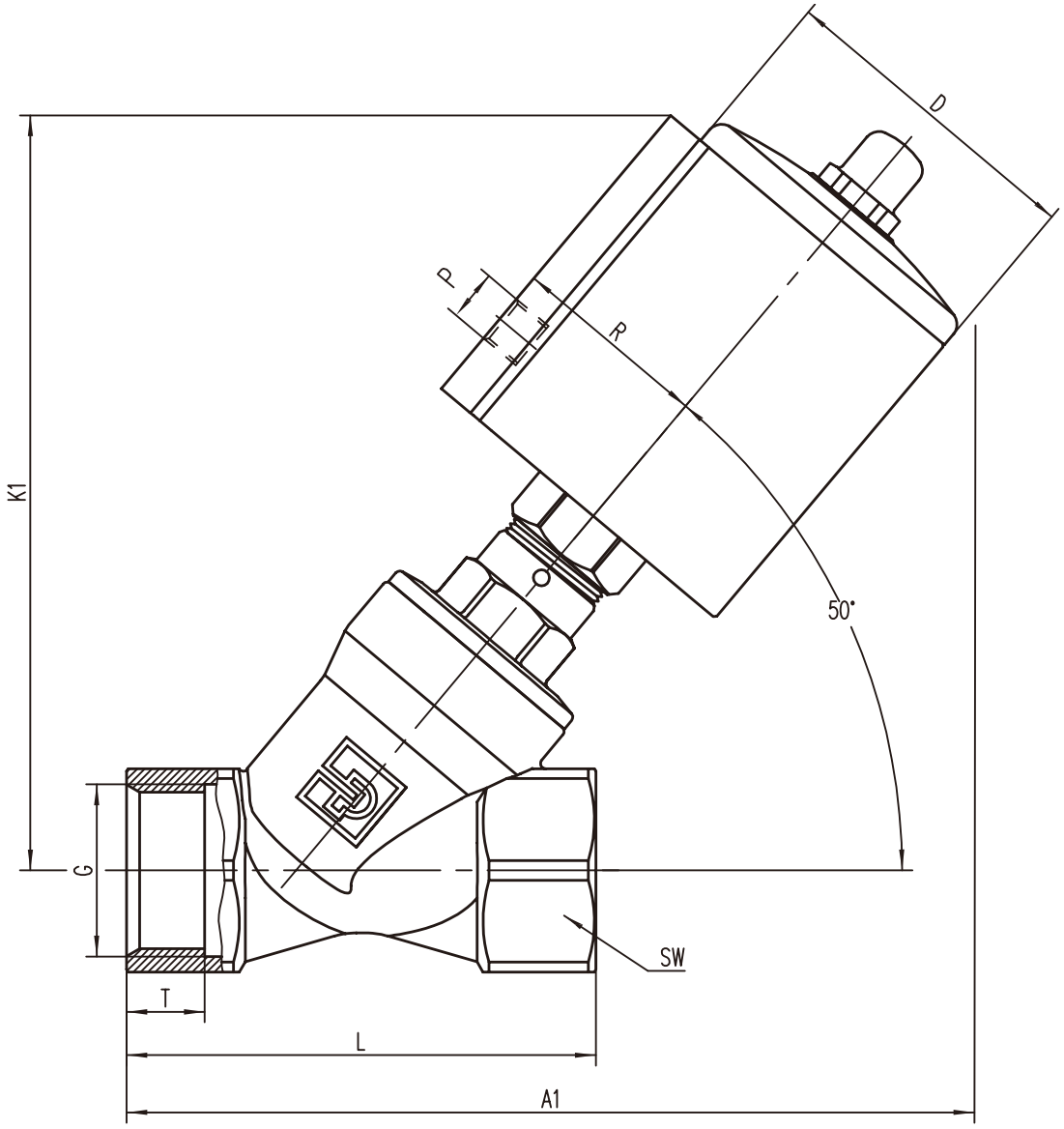


Type	Actuator	D	R	P	K1	A1	G	L	T	SW	
DN10	40	50.5	27	G1/8	116	121	G3/8	60	10	22	hexagon
	50	62	34	G1/8	130	133	G3/8	60	10	22	hexagon
DN15	40	50.5	27	G1/8	118	124	G1/2	65	11.5	25	hexagon
	50	62	34	G1/8	131	135	G1/2	65	11.5	25	hexagon
DN20	50	62	34	G1/8	134	141	G3/4	75	14	31	hexagon
DN25	50	62	34	G1/8	141	153	G1	90	15	39	hexagon
	63	77	41.5	G1/8	164	175	G1	90	15	39	hexagon
DN32	63	77	41.5	G1/8	170	188	G1-1/4	110	18	50	octagon
	80	98	52	G1/4	184	205	G1-1/4	110	18	50	octagon
DN40	63	77	41.5	G1/8	181	201	G1-1/2	120	18	56	octagon
	80	98	52	G1/4	195	217	G1-1/2	120	18	56	octagon
	100	121	63	G1/4	213	235	G1-1/2	120	18	56	octagon
DN50	63	77	41.5	G1/8	189	216	G2	150	22	68	octagon
	80	98	52	G1/4	203	233	G2	150	22	68	octagon
	100	121	63	G1/4	221	250	G2	150	22	68	octagon
DN65	100	121	63	G1/4	248	285	G2-1/2	180	25	85	octagon

SERIES PA Drawings and Dimensions

Aluminum Actuators

Sizes 50, 63, 80, 100 mm

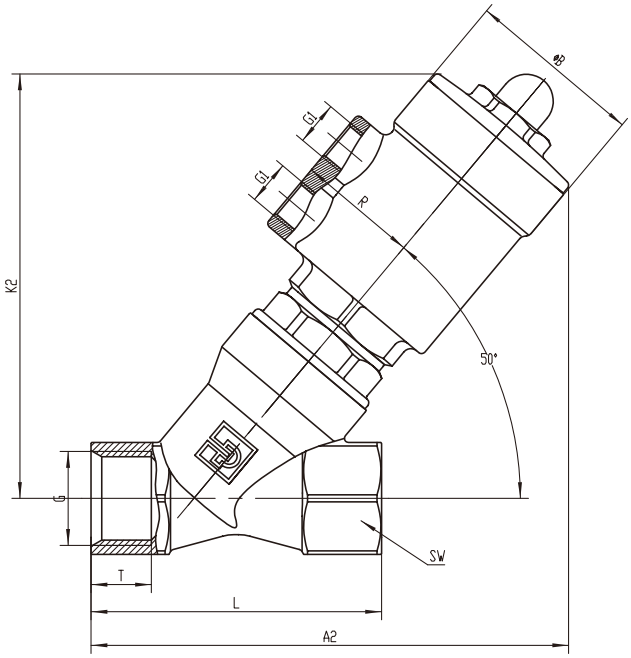


Type	Actuator	D	R	P	K1	A1	G	L	T	SW	
DN10	50	61	38	G1/8	132	141	G3/8	60	10	22	hexagon
DN15	50	61	38	G1/8	133	144	G1/2	65	11.5	25	hexagon
DN20	50	61	38	G1/8	136	150	G3/4	75	14	31	hexagon
DN25	50	61	38	G1/8	144	162	G1	90	15	39	hexagon
	63	75	45	G1/8	167	183	G1	90	15	39	hexagon
DN32	63	75	45	G1/8	173	196	G1-1/4	110	18	50	octagon
	80	94	54	G1/4	192	214	G1-1/4	110	18	50	octagon
DN40	63	75	45	G1/8	184	209	G1-1/2	120	18	56	octagon
	80	94	54	G1/4	203	226	G1-1/2	120	18	56	octagon
	100	115	64	G1/4	223	245	G1-1/2	120	18	56	octagon
DN50	63	75	45	G1/8	192	224	G2	150	22	68	octagon
	80	94	54	G1/4	211	242	G2	150	22	68	octagon
	100	115	64	G1/4	231	260	G2	150	22	68	octagon
DN65	100	115	64	G1/4	257	294	G2-1/2	180	25	85	octagon

SERIES PA Drawings and Dimensions

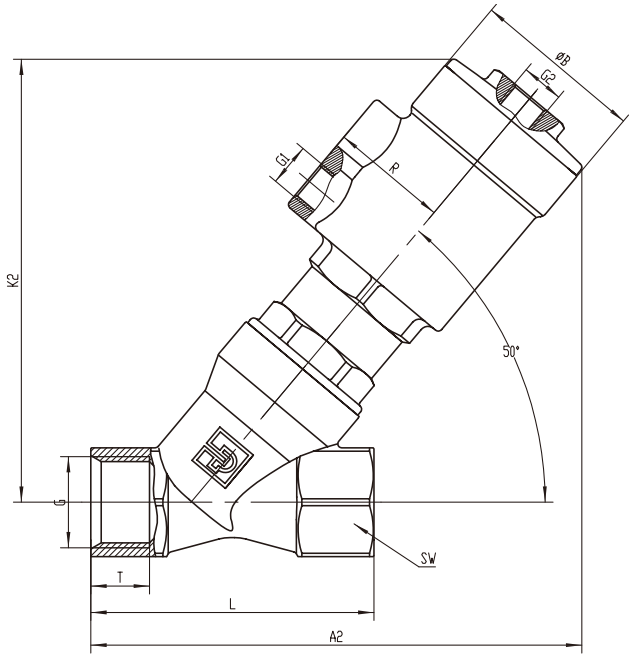
Stainless Steel Actuators

Sizes 32 mm



Normally Closed

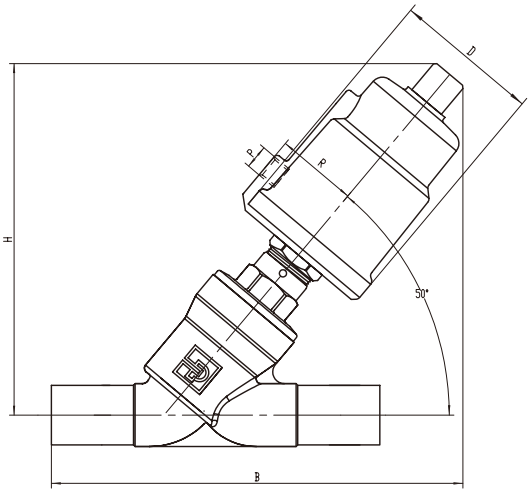
Type	Actuator	ØB	R	G1	K2		A2		G	L	T	SW	
					F32-H	F32-L	F32-H	F32-L					
DN10	32	39.6	27	G1/8	107	94	117	106	G3/8	60	10	22	hexagon
DN15	32	39.6	27	G1/8	109	96	119	108	G1/2	65	11.5	25	hexagon
DN20	32	39.6	27	G1/8	112	100	126	115	G3/4	75	14	31	hexagon



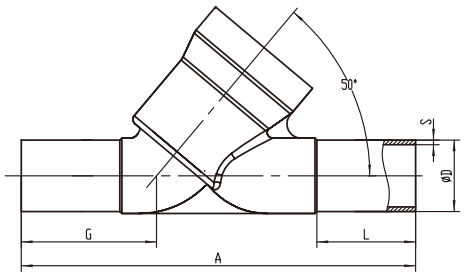
Normally Open

Type	Actuator	ØB	R	G1	G2	K2		A2		G	L	T	SW	
						F32-H	F32-L	F32-H	F32-L					
DN10	32	39.6	27	G1/8	G1/8	107	94	117	106	G3/8	60	10	22	hexagon
DN15	32	39.6	27	G1/8	G1/8	109	96	119	108	G1/2	65	11.5	25	hexagon
DN20	32	39.6	27	G1/8	G1/8	112	100	126	115	G3/4	75	14	31	hexagon

SERIES PA Drawings and Dimensions
Weld Connections



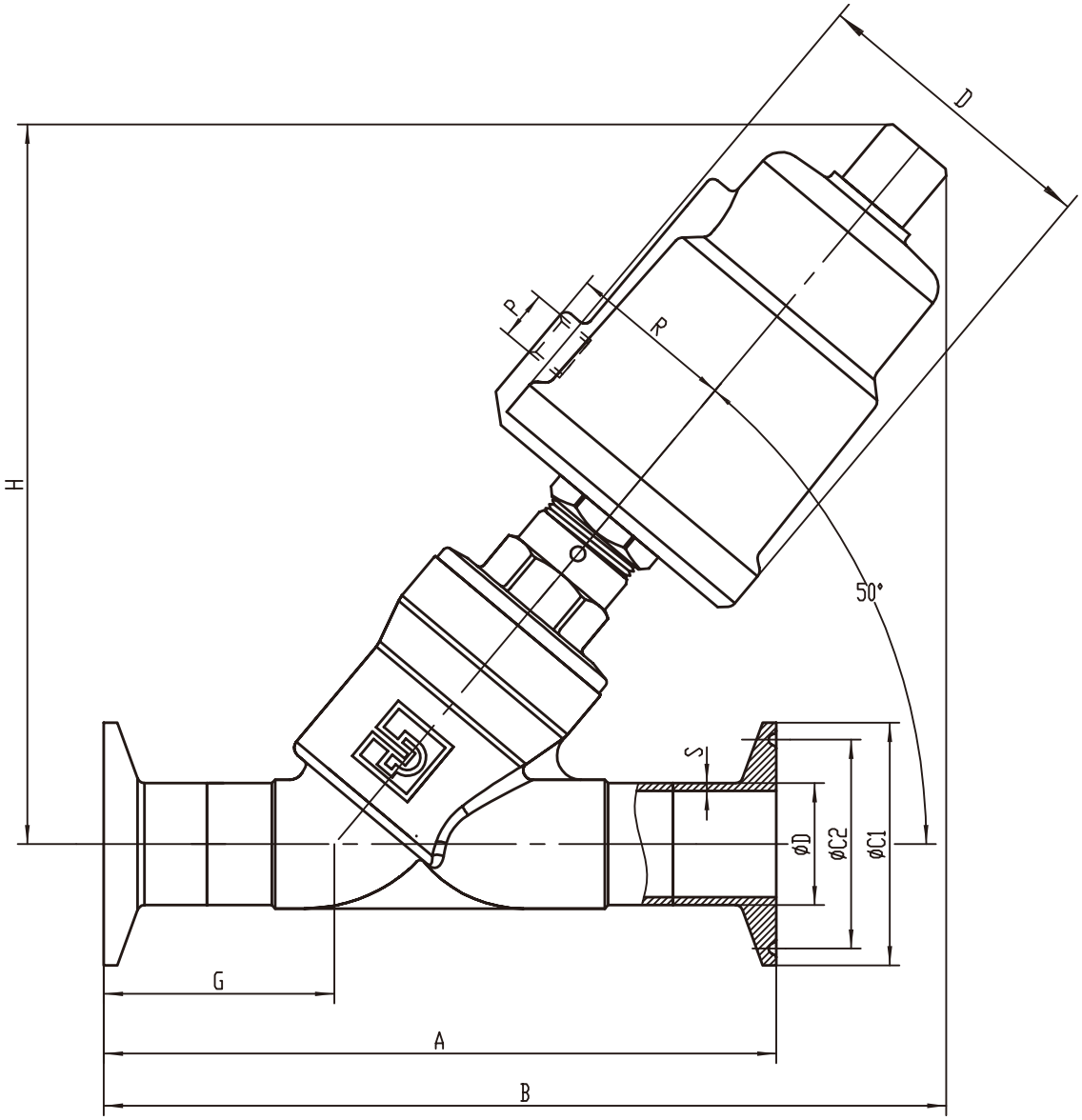
Type	Actuator	D	R	P	ISO1127/4200		DIN11850.1/2/3		SMS3008/ASME BPE	
					H	B	H	B	H	B
DN10	40	50.5	27	G1/8	125	141	125	141	-	-
	50	62	34	G1/8	138	152	138	152	-	-
DN15	40	50.5	27	G1/8	125	141	125	141	125	141
	50	62	34	G1/8	139	153	139	153	139	153
DN20	50	62	34	G1/8	144	162	144	162	144	162
DN25	50	62	34	G1/8	151	172	151	172	151	172
	63	77	41.5	G1/8	172	190	172	190	174	192
DN32	63	77	41.5	G1/8	185	203	185	203	-	-
	80	98	52	G1/4	196	217	196	217	-	-
DN40	63	77	41.5	G1/8	196	216	196	216	194	214
	80	98	52	G1/4	207	230	207	230	205	229
	100	121	63	G1/4	222	248	222	248	221	247
DN50	63	77	41.5	G1/8	205	227	205	227	205	227
	80	98	52	G1/4	216	242	216	242	216	242
	100	121	63	G1/4	232	259	232	259	232	259
DN65	100	121	63	G1/4	257	288	257	288	257	288



Body size-Welded (mm)

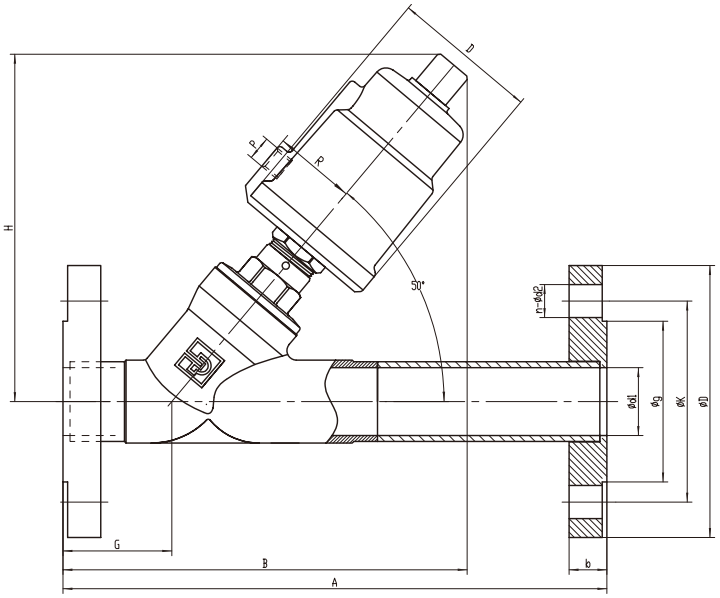
Type	A	G	L	ISO1127/4200		DIN11850.1		DIN11850.2		DIN11850.3		SMS 3008		ASME BPE	
				ØD	S	ØD	S	ØD	S	ØD	S	ØD	S	ØD	S
DN10	100	34	20	17.2	1.6	12	1	13	1.5	14	2	-	-	-	-
DN15	100	34	20	21.3	1.6	18	1	19	1.5	20	2	12	1	12.7	1.65
DN20	115	39	25	26.9	1.6	22	1	23	1.5	24	2	18	1	19.05	1.65
DN25	130	43	26	33.7	2	28	1	29	1.5	30	2	25	1.2	25.4	1.65
DN32	145	45	26	42.4	2	34	1	35	1.5	36	2				
DN40	160	49	26	48.3	2	40	1	41	1.5	42	2	38	1.2	38.1	1.65
DN50	175	52	26	60.3	2	52	1	53	1.5	54	2	51	1.2	50.8	1.65
DN65	210	60	30	76.1	2	-	-	70	1.5	-	-	63.5	1.6	63.5	1.65

SERIES PA Drawings and Dimensions
Clamp Connections



Type	Actuator	ASME BPE mm										
		D	R	P	H	B	A	G	ØC1	ØC2	ØD	S
DN15	40	50.5	27	G1/8	119	136	101.6	34.8	25.2	20.2	12.7	1.65
	50	62	34	G1/8	132	148	101.6	34.8	25.2	20.2	12.7	1.65
DN20	50	62	34	G1/8	137	150	114.3	32.5	25.2	20.2	19.05	1.65
DN25	50	62	34	G1/8	146	160	114.3	35.15	50.5	43.5	25.4	1.65
	63	77	41.5	G1/8	169	182	114.3	35.15	50.5	43.5	25.4	1.65
DN40	63	77	41.5	G1/8	189	202	139.7	38.85	50.5	43.5	38.1	1.65
	80	98	52	G1/4	202	219	139.7	38.85	50.5	43.5	38.1	1.65
	100	121	63	G1/4	221	236	139.7	38.85	50.5	43.5	38.1	1.65
DN50	63	77	41.5	G1/8	200	216	158.8	43.9	64	56.5	50.8	1.65
	80	98	52	G1/4	213	233	158.8	43.9	64	56.5	50.8	1.65
	100	121	63	G1/4	231	251	158.8	43.9	64	56.5	50.8	1.65

SERIES PA Drawings and Dimensions
Flange Connections



Flange connection (ANSI Class 150lb)

Type	Actuator	D (mm)	R (mm)	P	H (mm)	A (mm)	B (mm)	G (mm)	Φd1 (mm)	n	Φd2 (mm)	Φg (mm)	ΦK (mm)	ΦD (mm)	b (mm)
DN15	40	50.5	27	G1/8	124	195	144	37	16.4	4	15.9	34.9	60.3	88.9	11.1
	50	62	34	G1/8	138	195	155	37	16.4	4	15.9	34.9	60.3	88.9	11.1
DN20	50	62	34	G1/8	144	218	165	42	22.6	4	15.9	42.9	69.8	98.4	12.7
DN25	50	62	34	G1/8	149	241	173	46	28.7	4	15.9	50.8	79.4	107.9	14.3
	63	77	41.5	G1/8	171	241	192	46	28.7	4	15.9	50.8	79.4	107.9	14.3
DN32	63	77	41.5	G1/8	185	258	206	48	37	4	15.9	63.5	88.9	117.5	15.9
	80	98	52	G1/4	196	258	220	48	37	4	15.9	63.5	88.9	117.5	15.9
DN40	63	77	41.5	G1/8	196	283	218	52	42.6	4	15.9	73	98.4	127	17.5
	80	98	52	G1/4	207	283	233	52	42.6	4	15.9	73	98.4	127	17.5
	100	121	63	G1/4	222	283	251	52	42.6	4	15.9	73	98.4	127	17.5
DN50	63	77	41.5	G1/8	204	300	228	55	53.4	4	19.05	92.1	120.6	152.4	19.1
	80	98	52	G1/4	215	300	243	55	53.4	4	19.05	92.1	120.6	152.4	19.1
	100	121	63	G1/4	230	300	260	55	53.4	4	19.05	92.1	120.6	152.4	19.1

Flange connection (DIN 16bar)

DN10	40	50.5	27	G1/8	124	210	144	37	12.3	4	14	40	60	90	14
	50	62	34	G1/8	138	210	155	37	12.3	4	14	40	60	90	14
DN15	40	50.5	27	G1/8	124	210	144	37	16.4	4	14	45	65	95	14
	50	62	34	G1/8	138	210	155	37	16.4	4	14	45	65	95	14
DN20	50	62	34	G1/8	144	230	165	42	22.6	4	14	58	75	105	16
DN25	50	62	34	G1/8	149	230	173	46	28.7	4	14	68	85	115	16
	63	77	41.5	G1/8	171	230	192	46	28.7	4	14	68	85	115	16
DN32	63	77	41.5	G1/8	185	260	206	48	37	4	18	78	100	140	16
	80	98	52	G1/4	196	260	220	48	37	4	18	78	100	140	16
DN40	63	77	41.5	G1/8	196	260	218	52	42.6	4	18	88	110	150	16
	80	98	52	G1/4	207	260	233	52	42.6	4	18	88	110	150	16
	100	121	63	G1/4	222	260	251	52	42.6	4	18	88	110	150	16
DN50	63	77	41.5	G1/8	204	300	228	55	53.4	4	18	102	125	165	18
	80	98	52	G1/4	215	300	243	55	53.4	4	18	102	125	165	18
	100	121	63	G1/4	230	300	260	55	53.4	4	18	102	125	165	18
DN65	100	121	63	G1/4	257	340	291	63	68	4	18	122	145	185	18

Flange connection (JIS 10K)

DN15	40	50.5	27	G1/8	124	165	144	37	16.4	4	15	51	70	95	12
	50	62	34	G1/8	138	165	155	37	16.4	4	15	51	70	95	12
DN20	50	62	34	G1/8	144	184	165	42	22.6	4	15	56	75	100	14
DN25	50	62	34	G1/8	149	196	173	46	28.7	4	19	67	90	125	14
	63	77	41.5	G1/8	171	196	192	46	28.7	4	19	67	90	125	14
DN32	63	77	41.5	G1/8	185	208	206	48	37	4	19	76	100	135	16
	80	98	52	G1/4	196	208	220	48	37	4	19	76	100	135	16
DN40	63	77	41.5	G1/8	196	235	218	52	42.6	4	19	81	105	140	16
	80	98	52	G1/4	207	235	233	52	42.6	4	19	81	105	140	16
	100	121	63	G1/4	222	235	251	52	42.6	4	19	81	105	140	16
DN50	63	77	41.5	G1/8	204	247	228	55	53.4	4	19	96	120	155	16
	80	98	52	G1/4	215	247	243	55	53.4	4	19	96	120	155	16
	100	121	63	G1/4	230	247	260	55	53.4	4	19	96	120	155	16

SERIES PA
Numbering System

Angle Body Valve Numbering System

PA	10	S1	G3	S	063S	o

0: Parker Actuator(PA)

1: Valve size

10	DN10
15	DN15
20	DN20
25	DN25
32	DN32
40	DN40
50	DN50
65	DN65

2: Valve Type/series

Flow Over Seat		Flow Under Seat	
S1	NC	S3	NO
S2	NO	SA	NC

Compact Flow Over Seat		Compact Flow Under Seat	
C2	NC	C1	NC
C4	NC(100°C)	C3	NC(100°C)
J2	NO	J1	NO
J4	NO(100°C)	J3	NO(100°C)

3: Body Thread Standard

G3	BSPP 3/8
G4	BSPP 1/2
G5	BSPP 3/4
G6	BSPP 1
G7	BSPP 1-1/4
G8	BSPP 1-1/2
G9	BSPP 2
GT	BSPP 2-1/2
N3	3/8 NPT
N4	1/2 NPT
N5	3/4 NPT
N6	1 NPT
N7	1-1/4 NPT
N8	1-1/2 NPT
N9	2 NPT
NT	2-1/2 NPT
T3	BSPT 3/8
T4	BSPT 1/2
T5	BSPT 3/4
T6	BSPT 1
T7	BSPT 1-1/4
T8	BSPT 1-1/2
T9	BSPT 2
TT	BSPT 2-1/2

4: Body Material

S	304SS
R	316L SS
W	without body

5: Actuator Description

Stainless Steel 304	
032S	32mm actuator
040S	40mm actuator
050S	50mm actuator
063S	63mm actuator
080S	80mm actuator
100S	100mm actuator

Aluminum	
040A	40mm actuator
050A	50mm actuator
063A	63mm actuator
080A	80mm actuator
100A	100mm actuator

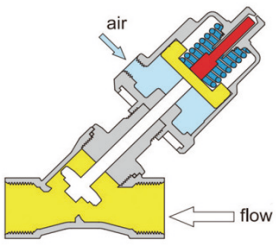
6:Special requirement

O	Oxygen
HT	High T°(220°C)
LS	Mechanical Limit Switch Box
PS	Proximity Switch
HP	high pilot pressure to 16bar
PR	Proportional

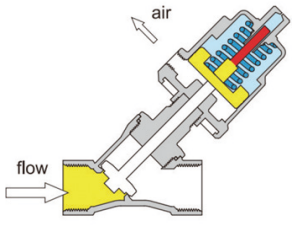
Note: "With Flow" is the same as flow over the seat.
"Against Flow" is the same as flow under the seat.

XX	None (witouht body)		
	Weldend connection		
WA	ASME BPE	W2	DIN 11850.2
WS	SMS 3008	W3	DIN 11850.3
W1	DIN 11850.1	WD	ISO 1127/47200
CA	CLAMP type ASME/BPE		
CI	CLAMP type ISO		
FA	Flange type ANSI B16.5-2003 RF 150Lb		
FD	Flange type DIN 2633 RF PN16		
FJ	Flange type JIS B2239-2004 RF 16K		

Flow Over Seat



Flow Under Seat



3 Way Direct Acting Pilot Control Valves

Available as Separate Components

Features

- Compact Designs
- Brass or Stainless Steel body valves
- NC (normally closed) and NO (normally open) versions
- Broad offering of coils to meet World Wide requirements
- Available in BSP and NPT connections in 1/8” and 1/4” sizes

Representative Pictures

Banjo Valve- For Direct Mounting to the ABV

Banjo Valve

Banjo Valve Mounted to ABV

3 Way Direct Acting Pilot Control Valves

Banjo Valve

Features

Direct Mount to ABV pilot port-(must be BSP thread port)
Standard Manual Operator
Din Coil Standard, others available

Technical Specifications

Mechanical Characteristics
Valve Type
3/2 normally closed solenoid valve

Materials
Anodized aluminum body,
Stainless steel internals,
FKM sealing material

Coil Enclosures
DIN, NEMA4 with cable gland connector, Class F Available hazardous Class H coil that meets FM /CSA approvals for Class 1, Div.1 Groups A,B,C,D and Class□□, Div.2 Groups E,F,G. Meets EEx m T4 Zone 1.

Coil Wattage
4.5 to 5.0 watt depending on voltage

Porting
1/8" NPT or G1/8" pressure port. (reference valve number) Banjo bolt G1/8" or G1/4" male thread

Mounting
Any position

Operating Characteristics
□ P minimum 0psid
□ P maximum 150psi

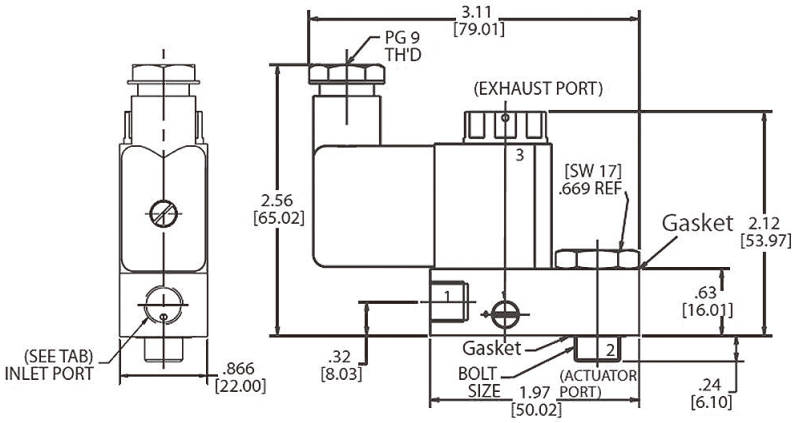
Environmental Temp. Ranges:

Fluid Temperature Range:
*0°F(-18°C) to185°F(85°C)

Ambient Temperature Range
14°F(-10°C) to122°F(50°C)

Compatible Fluids
Dry or lubricated air

Agency Approvals/Compliance
Din Coils: UL, CSA
Hazardous Coils: CSA, FM



Dimensions shown are in inches and millimeters.

Ordering Information

Part Number w/ DIN Coil & Connector	Actuator Enclosure Port 2	Valve Pressure Port 1
U131B01NDAx	G 1/8”	1/8” NPT
U131B02NDAx	G 1/4”	1/8” NPT
131B03NDAx	G 1/8”	G 1/8”
131B04NDAx	G 1/4”	G 1/8”

Voltage Code for Din Coil

A=12VDC B=24VDC E=24/60 F=120/60, 110/50 G=240/60, 220/50

Replace “x” in the Part number with one of the above Voltage Din Coil Codes.

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