ALADCO®

Pilot Operated Pneumatic Check Valves

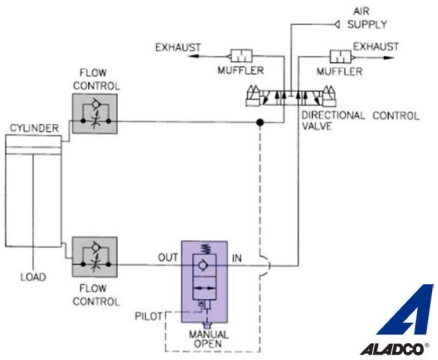
Built To Last

CLEAN-CHECK® PNEUMATIC CHECK VALVE

Aladco® Clean-Check® valve is a normally closed check valve that can be overridden by air piloting or manually to allow two-way flow. The tightly sealed Clean-Check® valves are used on pneumatic devices to stop air release when the device is stopped, which prevents drifting of the device and any attached load. Clean-Check® valves are unique in that they can be used in environments that need to stay very clean, but they also can tolerate exposure to external dirt and liquids.

The Clean-Check® valve is fully sealed for use in clean/sanitary environments without its function being affected. The valve is able to tolerate: dust, dirt, oil, grease, detergent, cleaning solutions and cutting fluids.

A typical use of a Clean-Check® valve involves combining it with a direction control valve to control air flow from ports of a pneumatic device. With an appropriate combination of direction control valves and other pneumatic components, a cylinder position control system using a Clean-Check® can handle both normal position control and standby or safety stop conditions. An example schematic for a double acting cylinder is shown. A combined valve system can have excellent fail-safe and assured control properties.

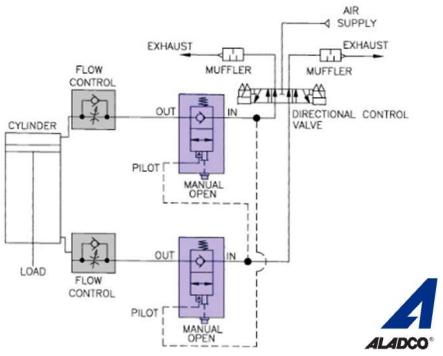


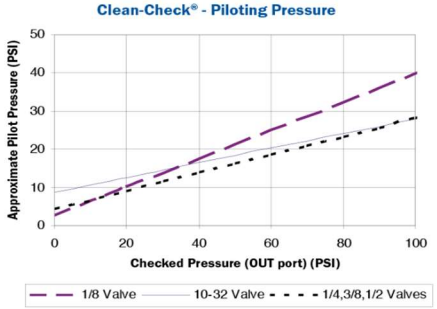
Features:

- Superior, self-cleaning ball seal provides long product life
- Exceeds ANSI Class VI Leak Standard (bubble tight)
- Body is made of high strength, lightweight, anodized 6061 aluminum alloy
- Variety of porting options
- Designed for use with lubricated or non-lubricated air systems
- Tamper resistant with no required maintenance
- Prevents load drift and provides rapid stopping of load
- Fully sealed for use in clean/sanitary environments
- Patented and Made in Waukesha, Wisconsin USA
- Standard 3-year warranty

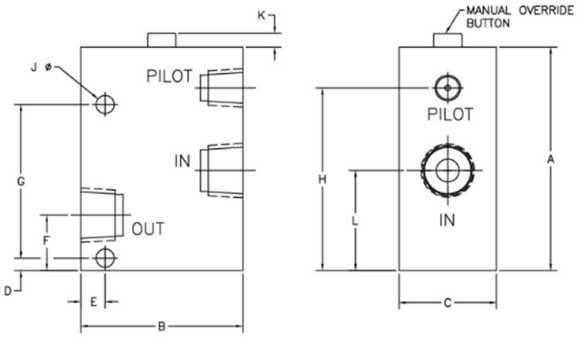
Additional Notes:

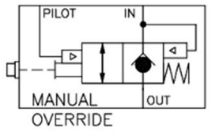
- Standard seal is Buna-N (30° to 250°F temperature range); Viton® (-15° to 400°F temperature range) is also an available option
- MTTF is over 100 million cycles for Buna-N seals and over 40 million cycles for Viton® seals
- NPTF Ports conform to ASME B1.20.1-2013 Pipe Threads, General Purpose (Inch)
- BSPP (G) and M5 Ports conform to ISO 16030:2003: Pneumatic fluid power – Connections – Ports and stud ends
- Operating pressure is 15 to 120 psi
- Operating temperature 30° to 150°F
- 10-32 UNF models have only one mounting hole



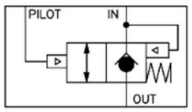


Clean-Check® Pneumatic Check Valve Dimensions





Series Type 50 and 51 Schematic



Series Type 52 Schematic

DIMENSIONS & SPECIFICATIONS																	
Port Size	A	B	C	D	E	F	G	H	J	K	L	Pilot Port	Cracking Pressure	CV	Pilot Ratio	Weight (AL)	Weight (SS)
#10-32	1.75	1.00	0.75	1.15	0.15	0.39	NA	1.50	0.19	0.18	0.84	#10-32	2 - 4 psi	0.2	5.3:1	0.20	0.40
1/8"	2.61	1.50	1.00	0.20	0.19	0.63	1.75	1.98	0.22	0.18	1.17	1/8"	2 - 4 psi	0.8	3:1	0.40	1.00
1/4"	3.46	2.50	1.50	0.20	0.38	0.87	2.38	2.83	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	4:1	1.20	3.20
3/8"	3.46	2.50	1.50	0.20	0.38	0.87	2.38	2.83	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	4:1	1.20	3.10
1/2"	3.46	2.50	1.50	0.20	0.38	0.87	2.38	2.83	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	4:1	1.20	3.10

*All A-L dimensions in inches; weight in pounds

Disclaimer:

- This valve has not been designed for use on vacuum, air over oil or high pressure applications
- Technical details subject to change without notice

Model Ordering Information

MODEL TYPE
- **50** Clean-Check® - Extended Override Button, Standard
- **51** Clean-Check® - Flush Override Button, Standard
- **52** Clean-Check® - No Manual Override, Assembled Per Order

INLET-OUTLET PORT SIZE

32	10-32 UNF Thread, Standard	**32**	M5 ISO Metric Thread, Standard
12	1/8" NPTF Thread, Standard	**12**	1/8G BSPP Thread, Standard
25	1/4" NPTF Thread, Standard	**25**	1/4G BSPP Thread, Standard
38	3/8" NPTF Thread, Standard	**38**	3/8G BSPP Thread, Standard
50	1/2" NPTF Thread, Standard	**50**	1/2G BSPP Thread, Standard

NOTE Please select the appropriate thread type based on inlet outlet port selection

Model Number | XX | XX | XX | X | X | X |

OPTIONAL SUFFIX
- **NCP** No Cracking Pressure, Assembled Per Order

SEAL TYPE
- **01 -** Buna-N Seals (Temp Range: 30° to 150° F), Standard
- **02 -** Viton® Seals (Temp. Range: -15° to 400° F), Assembled Per Order

MATERIAL BODY
- **blank** Aluminum, Standard
- **SS** 303 Stainless Steel, Assembled Per Order

THREAD TYPE
- **blank** NPTF Threaded Ports, Standard
- **blank** UNF Threaded Ports, Standard
- **BSPP** G BSPP Threaded Ports, Standard
- **M5** ISO Metric Threaded Ports, Standard

Model Examples:

Model 511201 is a Clean-Check® valve with 1/8" NPTF threaded Inlet-Outlet port, Buna-N seal, Aluminum body, and flush override button.

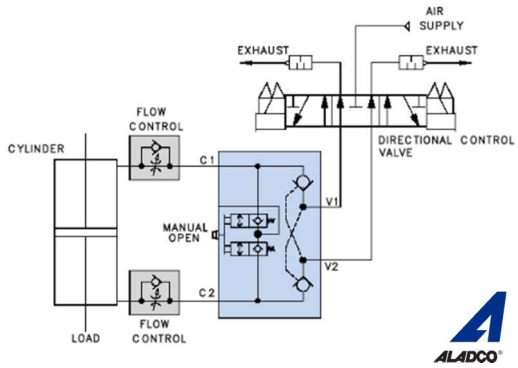
Model 502501SSBSPP is a Clean-Check® valve with 1/4" BSPP threaded Inlet-Outlet port, Buna-N seal, Stainless Steel body, and an extended override button.

DUAL-CHECK® PNEUMATIC CHECK VALVE

The Dual-Check® valve, designed specifically for pneumatics, is a patented Aladco® product. It is the only parallel check valve that can be manually overridden with an internally plumbed air pilot or a single override button that releases both sides at once.

A typical use of a Dual-Check® valve involves combining it with a direction control valve to control air flow from both ports of a double acting cylinder. With an appropriate combination of direction control valves and other pneumatic components, a cylinder position control system using a Dual-Check® can handle both normal position control and standby or safety stop conditions. A combined valve system can have excellent fail-safe and assured control properties.

Applications can involve work holding, clamping and positioning, and moving parts or equipment components in a wide variety of manually operated and automated machinery. Specific circuit design and switching valve selection are application-dependent. Your Aladco® distributor or Aladco® can be contacted to provide assistance with answering application questions.

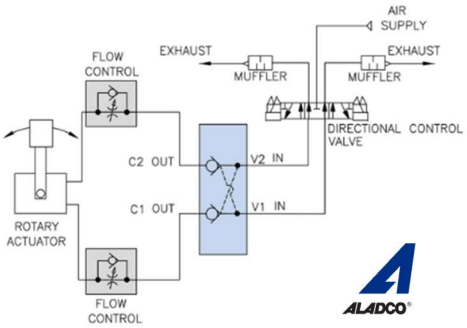


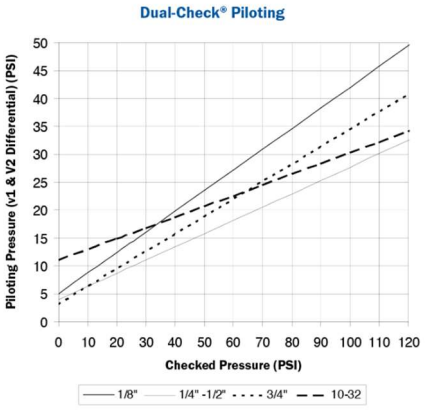
Features:

- Superior, self-cleaning ball seal provides long product life
- Exceeds ANSI Class VI Leak Standard (bubble tight)
- Body is made of high strength, lightweight, anodized 6061 aluminum alloy
- Variety of porting options
- Designed for use with lubricated or non-lubricated air systems
- Tamper resistant with no required maintenance
- Prevents load drift and provides rapid stopping of load
- Ability to provide multiple position control
- Patented and Made in Waukesha, Wisconsin USA
- Standard 3-year warranty

Additional Notes:

- Standard seal is Buna-N (30° to 250°F temperature range); Viton® (-15° to 400°F temperature range) is also an available option
- MTTF is over 100 million cycles for Buna-N seals and over 40 million cycles for Viton® seals
- NPTF Ports conform to ASME B1.20.1-2013 Pipe Threads, General Purpose (Inch)
- BSPP (G) and M5 Ports conform to ISO 16030:2003: Pneumatic fluid power – Connections – Ports and stud ends
- Operating pressure is 15 to 150 psi
- Operating temperature 30° to 150°F
- Stainless steel is no longer an available option for Dual-Check® configurations – please see our line of Clean-Check® pneumatic valves for stainless steel valve options





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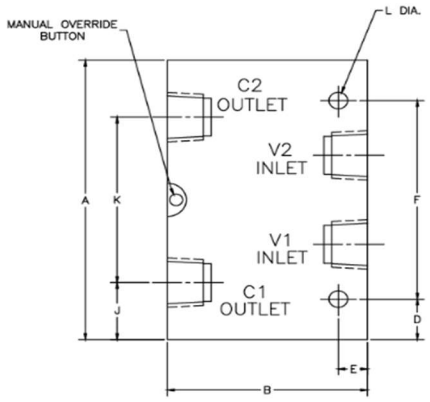
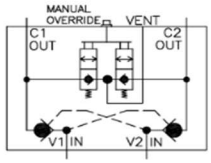
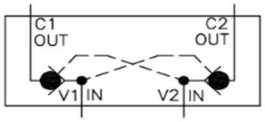
Dual-Check® Pneumatic Check Valve Dimensions





Model Types 60 & 61 Schematic



Model Type 62 Schematic

DIMENSIONS & SPECIFICATIONS																	
Port Size	A	B	C	D	E	F	G	H	J	K	L	Pilot Port	Cracking Pressure	CV	Pilot Ratio	Weight (AL)	Weight (SS)
#10-32	2.50	1.00	0.75	0.25	0.14	2.00	0.85	0.81	0.38	1.74	0.18	NA	2 - 4 psi	0.2	5.3:1	0.20	NA
1/8"	3.38	1.75	1.00	0.69	0.25	2.00	1.17	1.03	0.68	2.02	0.22	NA	2 - 4 psi	0.8	3:1	1.60	NA
1/4"	4.75	2.50	1.50	0.69	0.31	3.38	1.62	1.51	0.97	2.81	0.28	NA	2 - 4 psi	1.7	4:1	1.50	NA
3/8"	4.75	3.00	1.50	0.69	0.44	3.38	1.62	1.51	0.97	2.81	0.28	NA	2 - 4 psi	1.7	4:1	1.90	NA
1/2"	4.75	3.00	1.50	0.69	0.44	3.38	1.62	1.51	0.97	2.81	0.28	NA	2 - 4 psi	1.7	4:1	1.80	NA
3/4"	5.20	3.00	1.50	0.60	0.32	4.00	1.73	1.75	0.76	3.68	0.28	NA	2 - 4 psi	3.2	3:1	1.90	NA

*All A-L dimensions in inches; weight in pounds

Disclaimer: Technical details subject to change without notice

Model Ordering Information

MODEL TYPE
- **60** Dual-Check® - Extended Override Button, Standard
- **61** Dual-Check® - Flush Override Button, Standard
- **62** Dual-Check® - No Manual Override, Assembled Per Order

INLET-OUTLET PORT SIZE

32	10-32 UNF Thread, Standard	**32**	M5 ISO Metric Thread, Standard
12	1/8" NPTF Thread, Standard	**12**	1/8G BSPP Thread, Standard
25	1/4" NPTF Thread, Standard	**25**	1/4G BSPP Thread, Standard
38	3/8" NPTF Thread, Standard	**38**	3/8G BSPP Thread, Standard
50	1/2" NPTF Thread, Standard	**50**	1/2G BSPP Thread, Standard
75	3/4" NPTF Thread, Standard	**75**	3/4 NPTF Thread, Standard

NOTE Please select the appropriate thread type based on inlet outlet port selection

Model Number | XX | XX | XX | X |

SEAL TYPE
- **01 -** Buna-N Seals (Temp Range: 30° to 150° F), Standard
- **02 -** Viton® Seals (Temp Range: -15° to 400° F), Assembled Per Order

THREAD TYPE
- **blank** NPTF Threaded Ports, Standard
- **blank** UNF Threaded Ports, Standard
- **BSPP** G BSPP Threaded Ports, Standard
- **M5** ISO Metric Threaded Ports, Standard

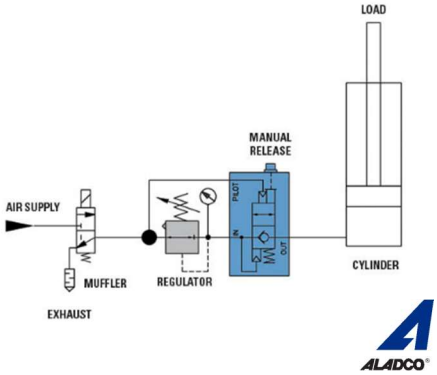
Model Examples:

Model 603801 is a Dual-Check® valve with 3/8" NPTF threaded Inlet-Outlet port, Buna-N seal, and an extended override button.
Model 603801BSPP is a Dual-Check® valve with 3/8" BSPP threaded Inlet-Outlet port, Buna-N seal, and an extended override button.

EQUA-CHECK® PNEUMATIC CHECK VALVE

The Equa-Check® valve, designed specifically for pneumatics, is a patented Aladco® product. It is the only check valve on the market with both manual and pilot release capabilities. Equa-Check® valves are pilot operated check valves where the pilot pressure is balanced by the IN chamber pressure. Load balancing systems are a type of application that can benefit from the functions of an Equa-Check® valve.

A typical use of an Equa-Check® valve involves combining it with a pressure regulator system to control air flow to and from one port of a tensioning or balancing cylinder. With an appropriate combination of a pressure controller and other pneumatic components, a control system using an Equa-Check® allows two-way flow for normal balancing or tensioning operation and position lock under supply pressure loss, standby or safety stop conditions. A combined valve system can have excellent fail-safe and assured control properties.

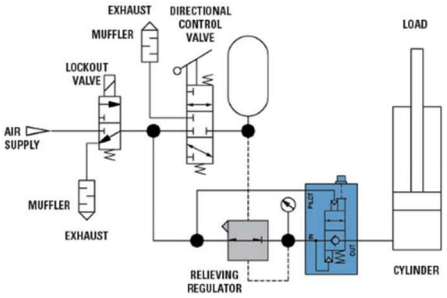


Features:

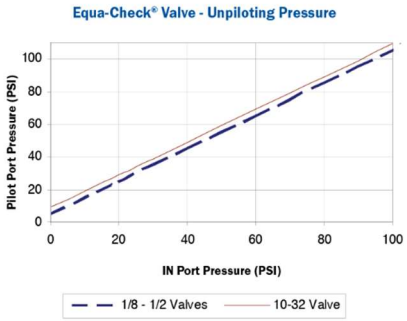
- Superior, self-cleaning ball seal provides long product life
- Exceeds ANSI Class VI Leak Standard (bubble tight)
- Body is made of high strength, lightweight, anodized 6061 aluminum alloy
- Variety of porting options
- Designed for use with lubricated or non-lubricated air systems
- Tamper resistant with no required maintenance
- Prevents load drift and provides rapid stopping of load
- Patented and Made in Waukesha, Wisconsin USA
- Standard 3-year warranty

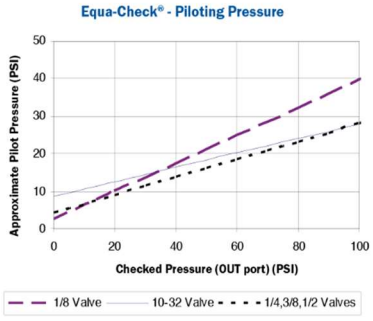
Additional Notes:

- Standard seal is Buna-N (30° to 250°F temperature range); Viton® (-15° to 400°F temperature range) is also an available option
- MTTF is over 100 million cycles for Buna-N seals and over 40 million cycles for Viton® seals
- NPTF Ports conform to ASME B1.20.1-2013 Pipe Threads, General Purpose (Inch)
- BSPP (G) and M5 Ports conform to ISO 16030:2003: Pneumatic fluid power – Connections – Ports and stud ends
- Operating pressure is 15 to 120 psi
- Operating temperature 30° to 150°F
- 10-32 UNF models have only one mounting hole

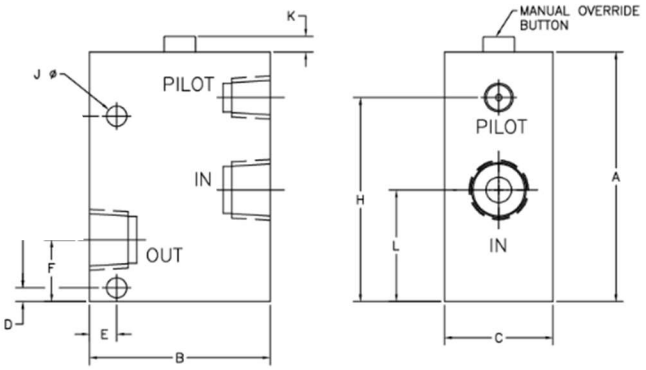


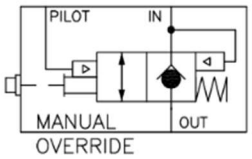
ALADCO®



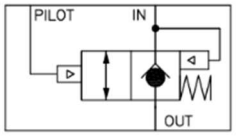


Equa-Check® Pneumatic Check Valve Dimensions





Series Type 40 and 41 Schematic



Series Type 42 Schematic

DIMENSIONS & SPECIFICATIONS																
Port Size	A	B	C	D	E	F	G	H	J	K	L	Pilot Port	Cracking Pressure	CV	Pilot Ratio	Weight (AL)	Weight (SS)
#10-32	1.75	1.00	0.75	1.15	0.15	0.39	NA	1.50	0.19	0.18	0.84	#10-32	2 - 4 psi	0.2	NA	0.20	0.40
1/8"	2.61	1.50	1.00	0.20	0.19	0.63	1.75	1.98	0.22	0.18	1.17	1/8"	2 - 4 psi	0.8	NA	0.40	1.00
1/4"	3.46	2.50	1.50	0.20	0.38	0.87	2.38	2.83	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	NA	1.20	3.20
3/8"	3.46	2.50	1.50	0.20	0.38	0.87	2.38	2.83	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	NA	1.20	3.10
1/2"	3.46	2.50	1.50	0.20	0.38	0.87	2.38	2.83	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	NA	1.20	3.10

*All A-L dimensions in inches; weight in pounds

Disclaimer:

- This valve has not been designed for use on vacuum, air over oil or high pressure applications
- Technical details subject to change without notice

Model Ordering Information

MODEL TYPE
- **40** Equa-Check® - Extended Override Button, Standard
- **41** Equa-Check® - Flush Override Button, Standard
- **42** Equa-Check® - No Manual Override, Assembled Per Order

INLET-OUTLET PORT SIZE

32	10-32 UNF Thread, Standard	**32**	M5 ISO Metric Thread, Standard
12	1/8" NPTF Thread, Standard	**12**	1/8G BSPP Thread, Standard
25	1/4" NPTF Thread, Standard	**25**	1/4G BSPP Thread, Standard
38	3/8" NPTF Thread, Standard	**38**	3/8G BSPP Thread, Standard
50	1/2" NPTF Thread, Standard	**50**	1/2G BSPP Thread, Standard

NOTE Please select the appropriate thread type based on inlet outlet port selection

Model Number | XX | XX | XX | X | X | X |

OPTIONAL SUFFIX
- **NCP** No Cracking Pressure, Assembled Per Order

SEAL TYPE
- **01 -** Buna-N Seals (Temp Range: 30° to 150° F), Standard
- **02 -** Viton® Seals (Temp. Range: -15° to 400° F), Assembled Per Order

MATERIAL BODY
- **blank** Aluminum, Standard
- **SS** 303 Stainless Steel, Assembled Per Order

THREAD TYPE
- **blank** NPTF Threaded Ports, Standard
- **blank** UNF Threaded Ports, Standard
- **BSPP** G BSPP Threaded Ports, Standard
- **M5** ISO Metric Threaded Ports, Standard

Model Examples:

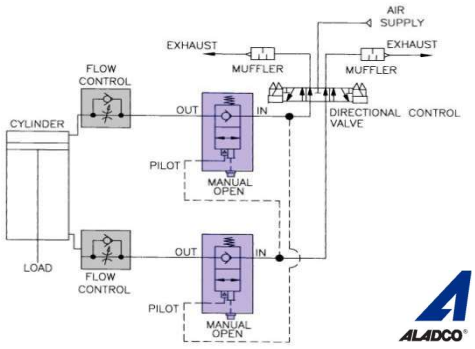
Model 401201BSPP is a Equa-Check® valve with 1/8" BSPP threaded Inlet-Outlet port, Buna-N seal, and an extended override button.
Model 401201 is a Equa-Check® valve with 1/8" NPTF threaded Inlet-Outlet port, Buna-N seal, and an extended override button.

NU-CHECK® PNEUMATIC CHECK VALVE

The Nu-Check® valve, designed specifically for pneumatics, is a patented Aladco® product. It was the first check valve on the market with both manual and pilot release capabilities. The unique bubble-tight seal keeps devices in “checked” position. If pressure loss or fluctuation should occur, the valve prevents drifting. To release the seal, depress the manual override button or operate the pilot.

An Aladco® Nu-Check® valve is a normally closed check valve that can be either overridden by air piloting or manually to allow two-way flow. The tightly sealed Nu-Check® valves are used on pneumatic devices to stop air release when the device is stopped, which prevents drifting of the device and any attached load.

A typical use of a Nu-Check® valve involves combining it with a direction control valve to control air flow from ports of a pneumatic device. With an appropriate combination of direction control valves and other pneumatic components, a cylinder position control system using a Nu-Check® can handle both normal position control and standby or safety stop conditions. An example schematic for a double acting cylinder is shown. A combined valve system can have excellent fail-safe and assured control properties.

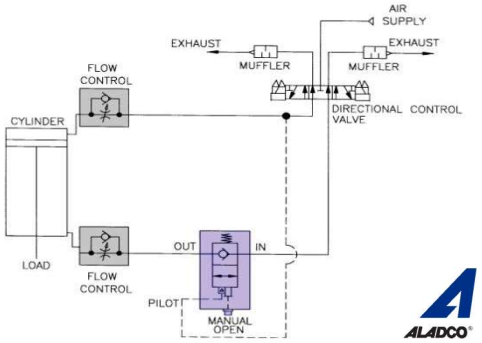


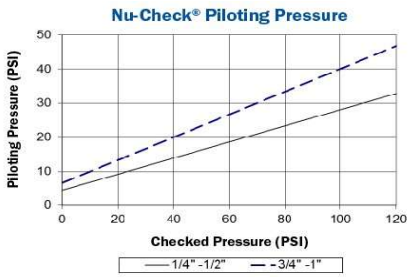
Features:

- Superior, self-cleaning ball seal provides long product life
- Exceeds ANSI Class VI Leak Standard (bubble tight)
- Body is made of high strength, lightweight, anodized 6061 aluminum alloy
- Variety of porting options
- Designed for use with lubricated or non-lubricated air systems
- Tamper resistant with no required maintenance
- Prevents load drift and provides rapid stopping of load
- Patented and Made in Waukesha, Wisconsin USA
- Standard 3-year warranty

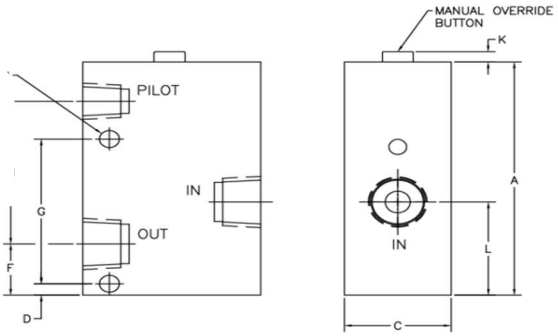
Additional Notes:

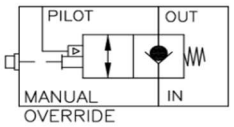
- Standard seal is Buna-N (30° to 250°F temperature range); Viton® (-15° to 400°F temperature range) is also an available option
- MTTF is over 100 million cycles for Buna-N seals and over 40 million cycles for Viton® seals
- NPTF Ports conform to ASME B1.20.1-2013 Pipe Threads, General Purpose (Inch)
- BSPP (G) and M5 Ports conform to ISO 16030:2003: Pneumatic fluid power – Connections – Ports and stud ends
- Operating pressure is 15 to 150 psi
- Operating temperature 30° to 150°F
- 10-32 and 1/8″ port sizes are no longer available as Nu-Check® options – please see our line of Clean-Check® pneumatic valves for compatible configurations
- Stainless steel is no longer an available option for Nu-Check® configurations – please see our line of Clean-Check® pneumatic valves for stainless steel valve options



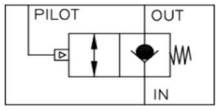


Nu-Check® Pneumatic Check Valve Dimensions





Model Types 30 & 31 Schematic



Model Types 32 Schematic

DIMENSIONS & SPECIFICATIONS

Port Size	A	B	C	D	E	F	G	H	J	K	L	Pilot Port	Cracking Pressure	CV	Pilot Ratio	Weight (AL)	Weight (SS)
1/4"	3.83	2.00	1.50	0.20	0.38	0.84	2.38	2.36	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	4:1	1.00	NA
3/8"	3.83	2.50	1.50	0.20	0.38	0.84	2.38	2.36	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	4:1	1.30	NA
1/2"	3.83	2.50	1.50	0.20	0.38	0.84	2.38	2.36	0.28	0.17	1.53	1/4"	2 - 4 psi	1.7	4:1	1.30	NA
3/4"	5.35	3.00	2.00	2.00	0.38	1.00	2.00	3.77	0.28	0.23	2.53	1/4"	2 - 4 psi	4.0	3:1	2.80	NA
1"	5.35	3.00	2.00	2.00	0.38	1.00	2.00	3.77	0.28	0.23	2.53	1/4"	2 - 4 psi	4.0	3:1	2.70	NA

*All A-L dimensions in inches; weight in pounds

Disclaimer: Technical details subject to change without notice

Model Ordering Information

MODEL TYPE
- **30** Nu-Check® - Extended Override Button, Standard
- **31** Nu-Check® - Flush Override Button, Standard
- **32** Nu-Check® - No Manual Override, Assembled Per Order

INLET-OUTLET PORT SIZE

25	1/4" NPTF Thread, Standard	**25**	1/4G BSPP Thread, Standard
38	3/8" NPTF Thread, Standard	**38**	3/8G BSPP Thread, Standard
50	1/2" NPTF Thread, Standard	**50**	1/2G BSPP Thread, Standard
75	3/4" NPTF Thread, Standard	**75**	3/4G BSPP Thread, Standard
01	1" NPTF Thread, Standard	**01**	1G BSPP Thread, Standard

NOTE Please select the appropriate thread type based on inlet outlet port selection

Model Number | XX | XX | XX | X | X |

SEAL TYPE
- **01 -** Buna-N Seals (Temp Range: 30° to 150° F), Standard
- **02 -** Viton® Seals (Temp. Range: -15° to 400° F), Assembled Per Order

THREAD TYPE
- **blank** NPTF Threaded ports, Standard
- **BSPP** G BSPP Threaded ports, Standard

OPTIONAL SUFFIX
- **HP** High Pressure (350 PSI Max), Assembled Per Order
- **NCP** No Cracking Pressure, Assembled Per Order
- **VAC** Vacuum Valve, Assembled Per Order

Model Examples:

Model 303801BSPP is a Nu-Check® valve with 3/8" BSPP threaded Inlet-Outlet port, Buna-N seal, and an extended override button.
Model 303801 is a Nu-Check® valve with 3/8" NPTF threaded Inlet-Outlet port, Buna-N seal, and an extended override button.

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Aladco® continually develops new product and perfects existing product lines. We strive to exceed our clients' expectations and are dedicated to providing quality design and innovative engineering in everything we do.

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