

- Identical, Interchangeable Coils – serve for continuous or intermittent duty. Coil will not overheat, even when continuously energized.
- Body and Cover – die-cast of high tensile zinc-base alloy.
- Synthetic O-rings and Seals – resist action of air, oil and grease.
- High-Speed Cycling – the medium passing through the center of the valve dissipates coil heat, keeping it cool.
- Seats, Plunger and Spring – corrosion-resistant stainless steel.
- Optional Junction Box – 1/2" threaded conduit connection; fully sealed; large enough for 18" leads.
- Captive Type Screws – on both top cover and junction box cover prevent loss.
- Coil Hermetically Sealed – encapsulated in thermosetting epoxy resin.
- Cadmium-Plated Magnet Bars – highly permeable, low-carbon steel.
- One-Piece Plunger – unbreakable, with top and bottom seals precision molded in place.
- Only One Moving Part – in the valve -- the plunger.

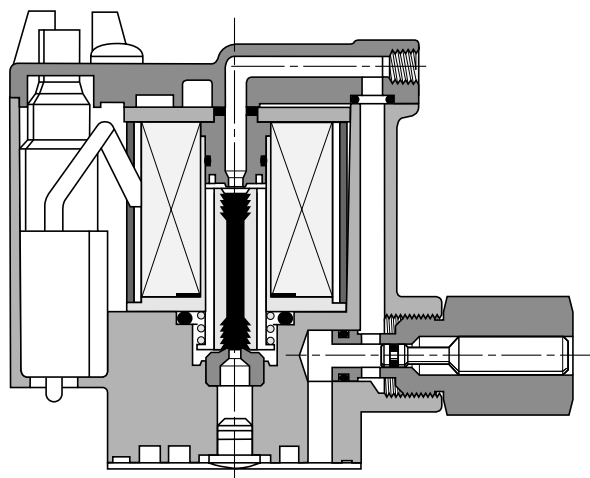
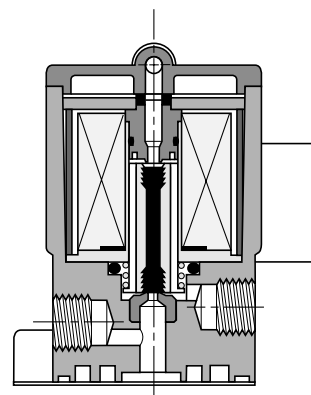
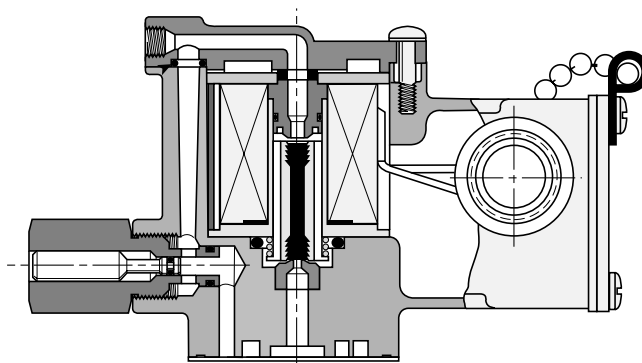
Note: If it is possible that the ambient temperature may fall below freezing, the medium must be moisture free to prevent internal damage or unpredictable behavior.

- **Special Service Pilots –**

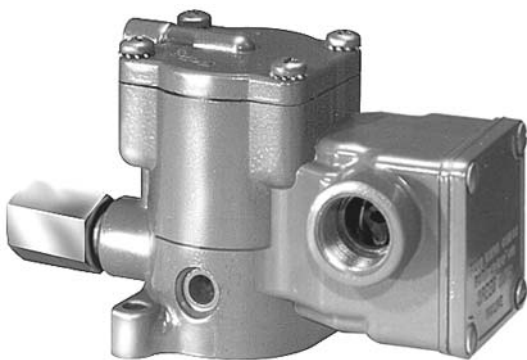
Special Service pilots are designed for applications where cycling is infrequent and the pilot is to be energized for indefinite periods of time . . . hours, days or weeks. Typical uses include fail-safe or emergency shut-down circuits where the pilot is to be energized and the valve open as long as the main control is "alive", in order to shut off air equipment in the event of power failure.

The Special Service pilot operates satisfactorily in ambient temperatures up to 125°F, even when continuously energized and without the benefit of the cooling air which normally flows through the pilot during frequent cycling. Under certain conditions, satisfactory operation may be obtained at ambient temperatures above 125°F. Consult factory.

Incorporating the performance-proved design features of the Standard pilot, the Special Service pilot utilizes, a bullet-shaped stem on the upper end of the plunger. This bullet-shaped stem, seating in a hi-temp rubber o-ring, provides both a bubble-tight seal and positive release.

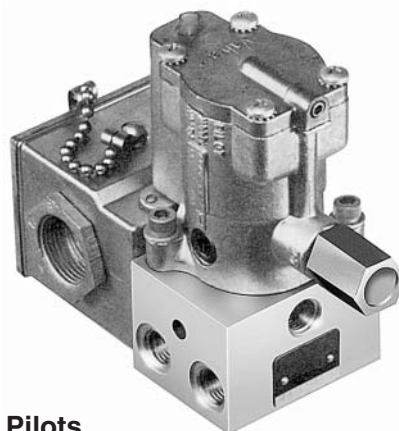


$$\text{Duty cycle} = \frac{\text{Time energized}}{\text{Time energized} + \text{time off}} \times 100 = \% \text{ duty cycle}$$



Pilot Valves

Pilot Valves — are “standard capacity” pilots designed to handle applications up to 600 cycles per minute. Pilot valves are specifically intended for pneumatic service, orifice sizes 1/16" to 3/16". Most models are available with wiring junction boxes. All normally open pilot valves are available with overrides.



Plug-In Pilots

Plug-In Pilots — are available for use on modular subbases. This feature permits quick valve changing without attention to electrical wiring. Available for subbase mounting only. For details see "Technical Information: Plug-In Pilot Valve."

Manual Overrides



Non-Locking Type K162 001



Locking Type K152 003

Subbase Options for Manifold-Mounted Valves



Single station subbase for standard pilots K022098

Maximum Operating Air Pressure (PSI)

Valve Orifice Size	Normally Closed		Normally Open	
	3-Way	2-Way	3-Way	2-Way
STANDARD DUTY PILOTS				
1/16"	150	250	200	200
3/32"	90	175	130	130
1/8"	60	125	90	90
HEAVY DUTY PILOTS				
1/8"	125	200	125	125
3/16"	60	90	90	90

Note: Pilots should generally be selected with the largest orifice size that will handle the operating pressure required. For fastest response use the largest orifice size possible.

**Function / Mounting
Style / Thread Style****Overrides /
Lights / Plug****Orifice /
Function****Voltage****Lead Length /
Override / Wiring****K055****1****001****53****L**

Overrides / Lights / Plug (See Valid Combinations Chart)				
No Plug	3-Pin Mini	5-Pin Mini	4-Pin Mini	Type
1				Basic
2				Basic NLMO
3				Basic LMO
4				JIC
5	B	K	A	JIC NLMO
6	C	L	D	JIC LMO
7*				JIC with Light
8*	E	N	J	JIC NLMO with Light
9*	F	P	M	JIC LMO with Light
W				Basic LMO Ext
Y	G	Q	S	JIC LMO Ext
Z*	H	R	T	JIC LMO Ext w/Light

* Available in 120 V / 60 Hz and 24 VDC only.

Lead Length / Override / Wiring	Available Combinations of Codable Override / Light / Plug Options
Blank	Standard 19" Leads
C*	Chrysler Wiring w/Plug
F*	Ford Wiring w/Plug
G*	GM Wiring w/Plug
L*	Long 72" Leads
	1 thru 9, W, Y, Z
	A thru T
	A thru T
	A thru T
	1 thru 9, W, Y, Z

* Not available in hazardous duty.

† 49/51/53 only.

Voltage**Standard Coils**

	60Hz	50Hz	DC
40	12	(12)	
41			6
42	24	(22)	
43		24	
45			12
46		36	
49			24
51			48
53	120	(110)	
57	240	(220)	
59		240	
60			90
61			120
62		380	
Arc Suppression Coils			
	60Hz	50Hz	DC
79			24

**Function / Mounting Style /
Thread Style
(See Valid Combinations Chart)****NPT Versions**

K015	Pilot Valve – Line Mounting – Hazardous Duty
K025*	Pilot Valve – Manifold Mounting – Hazardous Duty
K035	Pilot Valve – Line Mounting – Continuous Service – Hazardous Duty
K045*	Pilot Valve – Manifold Mounting – Continuous Service – Hazardous Duty
K055	Pilot Valve – Line Mounting
K065	Pilot Valve – Manifold Mounting
K075†	Pilot Valve – Line Mounting – Continuous Service
K085	Pilot Valve – Manifold Mounting – Continuous Service
K225‡	Pilot Valve – Line Mounting – NEMA 4 Rated
K235*	Pilot Valve – Manifold Mounting – NEMA 4 Rated
K245	Pilot Valve – Line Mounting – Continuous Service – NEMA 4 Rated
K255	Pilot Valve – Manifold Mounting – Continuous Service – NEMA 4 Rated

BSPP Versions

Rc	G	
K01B	K01G	Pilot Valve – Line Mounting – Hazardous Duty
K03B	K03G	Pilot Valve – Line Mounting – Continuous Service – Hazardous Duty
K05B	K05G	Pilot Valve – Line Mounting
K07B	K07G	Pilot Valve – Line Mounting – Continuous Service
K22B	K22G	Pilot Valve – Line Mounting – NEMA 4 Rated
K24B	K24G	Pilot Valve – Line Mounting – Continuous Service – NEMA 4 Rated

Orifice / Function

	Orifice Top Btm	Function	Exhaust	Pressure Range
001**	1/16 1/16	2-Way N.C.	Internal	0-250 PSIG
003*	1/16 1/16	2-Way N.O.	Internal	0-200 PSIG
005**	1/16 1/16	3-Way N.C.	Internal	0-150 PSIG
007*	1/16 1/16	3-Way N.O.	Internal	0-200 PSIG
009*	1/16 1/16	3-Way N.O.	External	0-200 PSIG
013*	1/16 3/32	3-Way N.O.	Internal	0-200 PSIG
014*	1/16 3/32	3-Way N.O.	External	0-200 PSIG
015**	1/16 3/32	2-Way N.C.	Internal	0-175 PSIG
017*	3/32 3/32	2-Way N.O.	Internal	0-140 PSIG
019†	3/32 3/32	3-Way N.C.	Internal	0-90 PSIG
021	3/32 3/32	3-Way N.C.	External	0-90 PSIG
023	3/32 3/32	3-Way N.O.	Internal	0-130 PSIG
025	3/32 3/32	3-Way N.O.	External	0-140 PSIG
029†	3/32 1/16	3-Way N.C.	Internal	0-150 PSIG
033	3/32 1/8	3-Way N.O.	Internal	0-140 PSIG
035	3/32 1/8	3-Way N.O.	External	0-140 PSIG
036	3/32 1/16	3-Way N.C.	External	0-150 PSIG
037**	1/16 1/8	2-Way N.C.	Internal	0-125 PSIG
039*	1/8 1/8	2-Way N.O.	Internal	0-90 PSIG
041**	1/8 1/8	3-Way N.C.	Internal	0-60 PSIG
043*	1/8 1/8	3-Way N.O.	Internal	0-90 PSIG
045*	1/8 1/8	3-Way N.O.	External	0-90 PSIG
054**	1/8 3/32	3-Way N.C.	Internal	0-90 PSIG
056*	1/8 3/32	3-Way N.C.	External	0-90 PSIG
080*	1/16 1/16	3-Way N.C.	External	0-150 PSIG

* Available in voltage Function / Mounting Styles K015, K025, K055, K065, K225 & K235.

† Available in Overrides / Lights Option 1.

Valid Combination Chart

Function / Mounting Style	Overrides / Lights
K015	1
K025	1, 2, 3, W
K035	1
K045	1, 2, 3, W
K055	1, 4, 7
K065	1-9, A-Z
K075	1, 4, 7
K085	1-9, A-Z
K225	1
K235	1, 2, 3, W
K255	1, 2, 3, W

* Available only in voltage codes 49 & 53.

† Available only in voltage code 53.

‡ Available only in voltage codes 45 & 53.

Note: Shaded options have been discontinued. Refer to back of Catalog for Cross Reference Information.