

**Excelon 72 Smooth Start/Exhaust Valve
1/4", 3/8" Port Sizes**

- Excelon design allows in-line or modular installation
- Controls increase of downstream pressure on start up. Cylinders and other air operated devices are eased into normal operating positions, reducing the possibility of equipment damage and hazards to the user.
- 3 port/2 position, normally closed, soft start valve
- Blocks inlet air and exhausts downstream air when pilot signal is removed
- Solenoid pilot or air pilot operation
- Designed primarily for use in start-up and shutdown of equipment, not as a frequently cycling directional control valve. Norgren offers a wide variety of valves designed for frequent cycling and other applications. Please refer to the P72C and P74C valves, and to other Norgren valve catalogs.



Ordering Information. Models listed are with PTF threads. Solenoid operated models include 24 VDC coil and plug without indicator.

Port Size	Solenoid Operated* Model	Weight lb (kg)	Air Pilot Operated Model	Weight lb (kg)
1/4"	P72F-2AC-PFA	2.00 (0.91)	P72F-2AA-NNN	1.93 (0.88)
3/8"	P72F-3AC-PFA	1.98 (0.90)	P72F-3AA-NNN	1.91 (0.87)

* To select other solenoid type and coil voltage refer to alternative models table below.

Alternative Models

Alternative Models

Port Size	Substitute
1/4"	2
3/8"	3

Threads	Substitute
PTF	A
ISO Rc taper	B
ISO G parallel	G

Operator	Substitute
Air pilot**	A
22 mm miniature solenoid	C
CNOMO	L

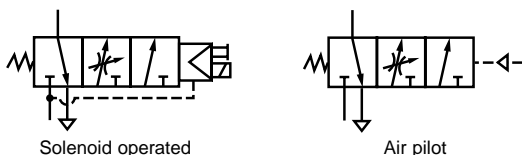
Solenoid Manual Operator	Substitute
Shrouded push button	P
None	N

Connectors	Substitute
3 pin plug with cable gland, no indicator	A
Without	N

Coil Voltage	Nominal Power Rating	Substitute
24 V d.c.	2 W	F
12 V d.c.	2 W	E
6 V d.c.	2 W	D
220/240 V 50/60 Hz	4/2.5 VA	B
110/120 V 50/60 Hz	4/2.5 VA	A
No coil	2 W	Z
No solenoid		N

P	7	2	F	-	★	★	★	-	★	★	★
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** to order air pilot models also substitute 'NNN' at digits 8, 9 and 10 e.g. P72F-2GA-NNN.

ISO Symbols


See Section ALE-24 for Accessories



Technical Data

System air supply: Turn on system air supply prior to applying pilot signal to operator.
Failure to do so may cause valve to continuously exhaust.

Fluid: Compressed air

Maximum pressure solenoid operated:

Dependant on solenoid rating

[must not exceed 250 psig (17 bar)]

Maximum pressure pilot operated: 250 psig (17 bar) max.

Minimum operating pressure: 44 psig (3 bar)

Operating temperature solenoid operated:

Dependant on solenoid rating

[must be within range 0°* to 150°F (-20°* to 65°C)]

Operating temperature pilot operated:

0°* to 150°F (-20°* to 65°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Air Pilot Port:

10-32 UNF with PTF main ports

M5 with ISO main ports

Exhaust Port:

1/4" PTF with PTF main ports

1/4" ISO Rc with ISO Rc main ports

1/4" ISO Rc with ISO G main ports

Maximum flow with 90 psig (6.3 bar) inlet pressure and pressure drop of 7 psig (0.5 bar): 45 scfm (21 dm³/s) [P₁ to P₂ = Cv 1.59] [P₂ to P₃ = Cv 1.72]

Snap pressure:

Full flow when downstream pressure reaches 50 – 80% of inlet pressure

Charge time:

For 0.53 gallon US (2 liter) downstream volume and 90 psig (6.3 bar) inlet pressure

Minimum 0.8 sec.

Typical maximum 99 sec.

Materials

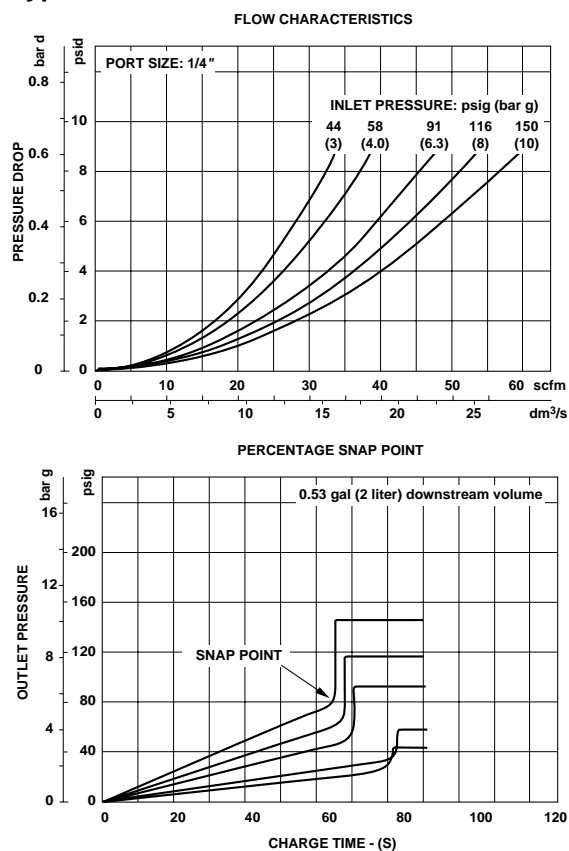
Body: Zinc alloy

Elastomers: Synthetic materials

Filter discs: Sintered plastic

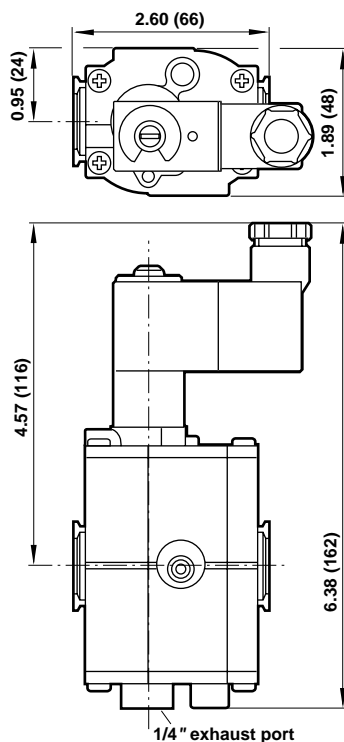
Internal components: Brass/steel

Typical Performance Characteristics

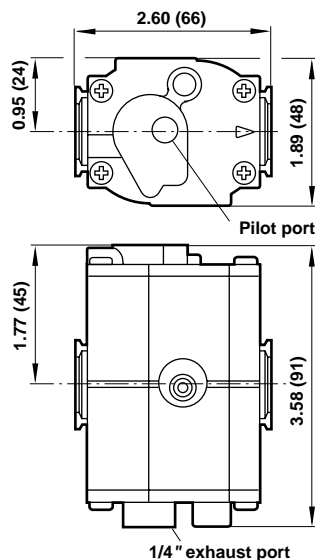


All Dimensions in Inches (mm)

Solenoid operated



Air pilot operated



Excelon 74 Smooth Start/Exhaust Valve
3/8", 1/2", 3/4" Port Size

- Excelon design allows in-line or modular installation
- Controls increase of downstream pressure on start up. Cylinders and other air operated devices are eased into normal operating positions, reducing the possibility of equipment damage and hazards to the user.
- 3 port/2 position, normally closed, soft start valve with optional manual lockout slide
- Blocks inlet air and exhausts downstream air when pilot signal is removed or when the optional manual lockout slide is closed
- Optional manual slide can be padlocked in closed position
- Solenoid pilot or air pilot operation
- Designed primarily for use in start-up and shutdown of equipment, not as a frequently cycling directional control valve. Norgren offers a wide variety of valves designed for frequent cycling and other applications. Please refer to the P72C and P74C valves, and to other Norgren valve catalogs.



Ordering Information. Models listed are with PTF ports. Solenoid operated models include 24 V d.c. coil and plug without indicator.

Port Size	Solenoid Operated* Model	Weight lb (kg)	Air Pilot Operated Model	Weight lb (kg)
3/8"	P74F-3AC-PFA	2.4 (1.08)	P74F-3AA-NNN	2.3 (1.05)
1/2"	P74F-4AC-PFA	2.3 (1.05)	P74F-4AA-NNN	2.2 (1.02)
3/4"	P74F-6AC-PFA	3.1 (1.41)	P74F-6AA-NNN	3.0 (1.35)

* To select other solenoid type and coil voltage refer to alternative models table below.

Alternative Models

P 7 4 F - ★ ★ ★ - ★ ★ ★

Port Size	Substitute
3/8"	3
1/2"	4
3/4"	6

Threads	Substitute
PTF	A
ISO Rc taper	B
ISO G parallel	G

Operator	Substitute
Air pilot**	A
Air pilot with manual lockout slide**	B
22 mm miniature solenoid	C
22 mm miniature solenoid with manual lockout slide	D
CNOMO solenoid	L
CNOMO solenoid with manual lockout slide	M

Connectors	Substitute
3 pin plug with cable gland, no indicator light	A
Cable grip w/indicator light †	B
1/2" Conduit	C
Without	N

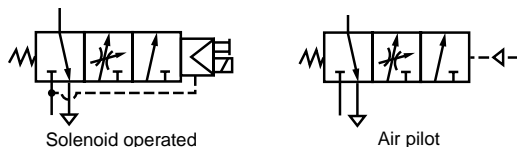
Coil Voltage	Nominal Power Rating	Substitute
24 V d.c.	2 W	F
12 V d.c.	2 W	E
6 V d.c.	2 W	D
220/240 V 50/60 Hz	4/2.5 VA	B
110/120 V 50/60 Hz	4/2.5 VA	A
No coil	2 W	Z
No solenoid		N

Solenoid Operator	Substitute
Shrouded push button	P
Screw driver slot****	S
None	N

** To order air pilot models also substitute 'NNN' at digits 8, 9 and 10 e.g. P74F-4AA-NNN.

**** Not available with D or M operator.

† Use with A and F coils only.

ISO Symbols


See Section ALE-24 for Accessories



Technical Data

System air supply: Turn on system air supply prior to applying pilot signal to operator.

Failure to do so may cause valve to continuously exhaust.

Fluid: Compressed air

Maximum pressure solenoid operated:

Dependant on solenoid rating

[must not exceed 250 psig (17 bar)]

Maximum pressure pilot operated: 250 psig (17 bar) max.

Minimum operating pressure: 44 psig (3 bar)

Operating temperature solenoid operated:

Dependant on solenoid rating

[must be within range 0°* to 175°F (-20°* to 80°C)]

Operating temperature pilot operated:

0°* to 175°F (-20°* to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Air pilot port:

ISO Rc1/4 with ISO Rc main ports

ISO Rc1/4 with ISO G main ports

1/4" PTF with PTF main ports

Exhaust port:

ISO G1/2 with ISO G main ports

ISO G1/2 with ISO Rc main ports

1/2" PTF with PTF main ports

Typical flow with 90 psig (6.3 bar) inlet pressure and pressure drop of 7 psig (0.5 bar):

57 dm³/s (P₁ to P₂ = Cv 4.4) (P₂ to P₃ = Cv 5.6)

Snap pressure:

Full flow when downstream pressure reaches 50 – 80% of inlet pressure

Charge time:

For 2 liter downstream volume and 90 psig (6.3 bar) inlet pressure:

0.2 sec. minimum

76 sec. maximum

Materials

Body: Aluminium

Intermediate body: Aluminium

Elastomers: Synthetic materials

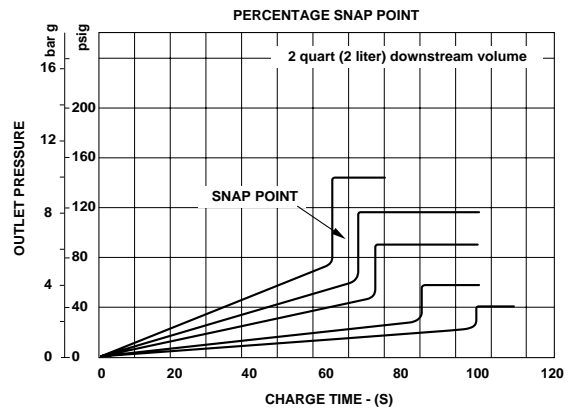
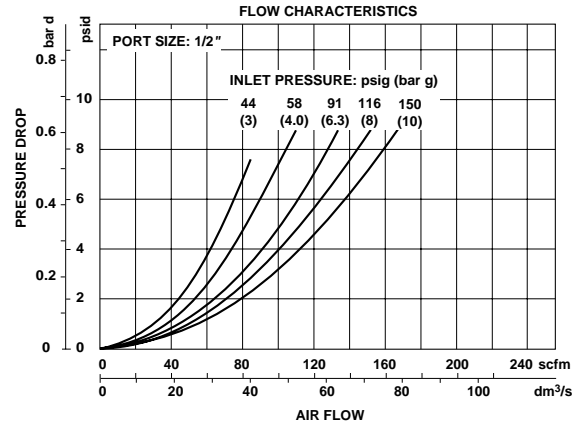
Filter discs: Sintered plastic

Internal components: Brass/steel

Top plate: Zinc

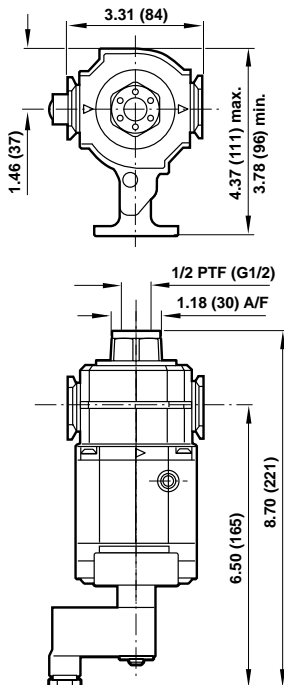
Exhaust bonnet: Zinc

Typical Performance Characteristics

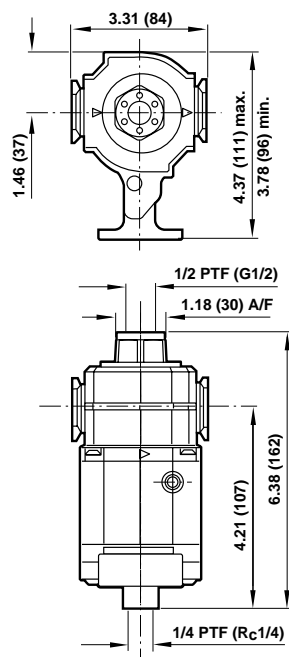


All Dimensions in Inches (mm)

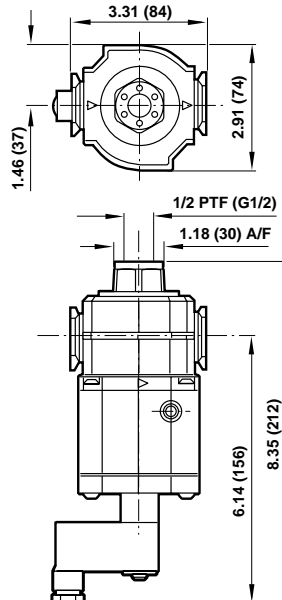
Solenoid operated plus manual shut-off with lockout



Air pilot operated plus manual shut-off with lockout



Solenoid operated



Air pilot operated

