

**EXCELON®72**  
**Soft Start/Dump Valve**  
**1/4", 3/8" Port Sizes**

- **EXCELON design allows inline 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.**



### 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: Dependent on solenoid rating. Must not exceed 17 bar (250 psig).

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

Minimum operating pressure: 3 bar (44 psig)

Operating temperature solenoid operated: Dependent on solenoid rating. Must be within range -20°C\* to +65°C (0°F\* to +150°F).

Operating temperature pilot operated:  
 -20°C\* to +65°C (0°F\* to +150°F)

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

Air Pilot Port:

10-32 UNF with PTF main ports

M5 with ISO main ports

Exhaust Port:

1/4" PTF with PTF main ports

Rc1/4 with ISO G and ISO Rc main ports

Typical flow with 6,3 bar (90 psig) inlet pressure and pressure drop of 0.5 bar (7 psig):

21 dm<sup>3</sup>/s (45 scfm) [P<sub>1</sub> to P<sub>2</sub> = Cv 1,59] [P<sub>2</sub> to P<sub>3</sub> = Cv 1,72]

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

Charge time for 2 litre (0.53 gallon US) downstream volume and 6,3 bar (90 psig) inlet pressure:

Minimum 0,8 sec.

Typical maximum 99 sec.

Materials:

Body: Zinc alloy

Elastomers: Synthetic materials

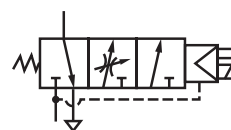
Filter discs: Sintered plastic

Internal components: Brass/steel

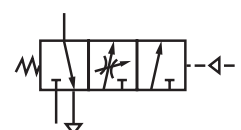
### Ordering Information

See *Ordering Information* on the following pages.

### ISO Symbols



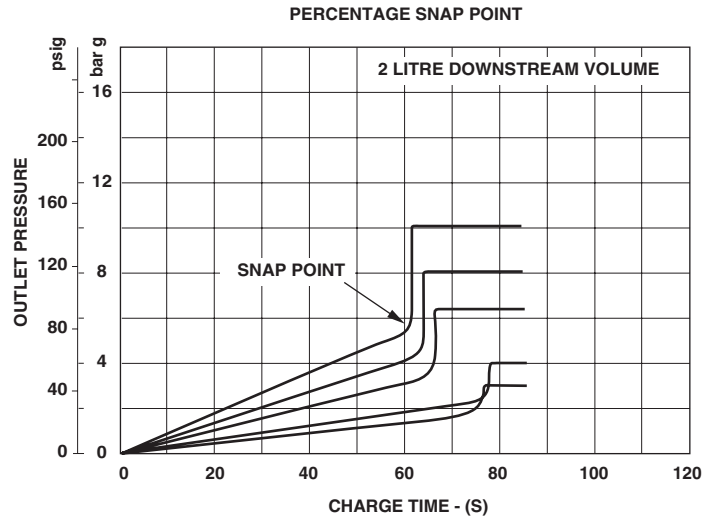
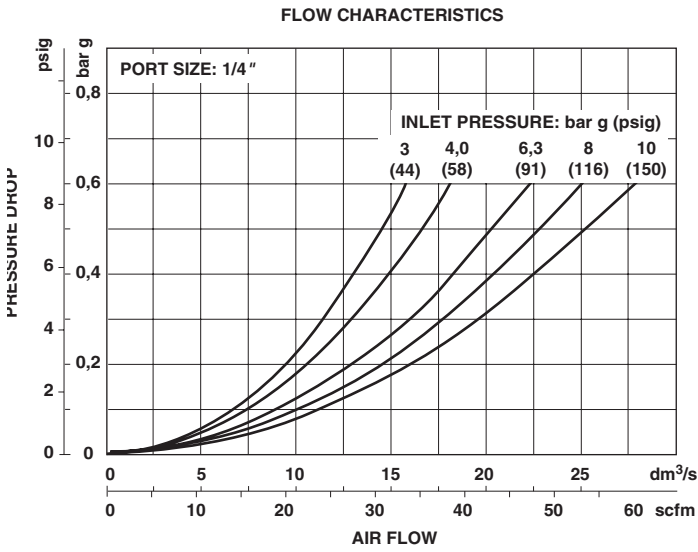
Solenoid operated



Air pilot



### Typical Performance Characteristics



**Ordering Information.** Models listed are with ISO G threads. Solenoid operated models include 24 V d.c. coil and plug without indicator.

Port Size	Solenoid Operated* Model	Weight kg (lb)	Air Pilot Operated Model	Weight kg (lb)
G1/4	P72F-2GC-PFA	0,91 (2.00)	P72F-2GA-NNN	0,88 (1.93)
G3/8	P72F-3GC-PFA	0,90 (1.98)	P72F-3GA-NNN	0,87 (1.91)

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

### Alternative Models

P 7 2 F - \* \* \* - \* \* \*

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

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

### Accessories

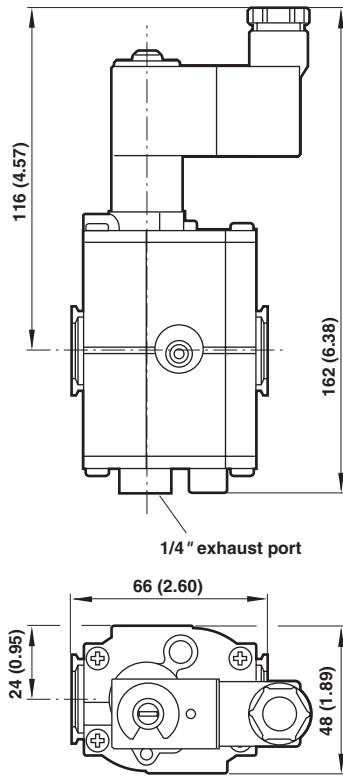
Plug with Cable Gland for 22 mm Solenoid			3/2 Shut-off Valve			Exhaust Port Silencer		
M/P24121/1*	12-24 V ac/dc	Indicator type	G1/4	T72T-2GA-P1N	R1/4:	MB002B		
M/P24121/2	150-230 V ac	Indicator type	G3/8	T72T-3GA-P1N	1/4 PTF:	MB002A		
M/P24121/3	150-230 V ac	Indicator type						
M/P19063		No Indicator						

\* Reduced light intensity at 12 V.

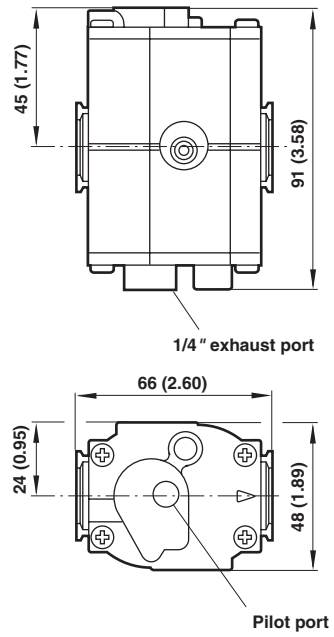


### Dimensions mm (inches)

Solenoid operated



Air pilot operated





## Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **Technical Data**.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

**System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.