

Excelon® 74
Soft Start/Dump Valve
3/8", 1/2", 3/4" Port Size

- **EXCELON design allows inline or modular installation**
- **Controlled increase of downstream pressure on start up**
- **Solenoid or air pilot operation**
- **High forward flow capacity**
- **High flow dump facility**
- **Optional manual dump facility with lockout**

Soft start valves allow a controlled increase of pressure onto downstream cylinder/machines offering protection to personnel and equipment.

The dump feature can be activated by removing power to the solenoid or the air pilot, or by operating the manual dump.

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

Technical Data

Fluid: Compressed air

Maximum pressure solenoid operated:

Dependant 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:

Dependant on solenoid rating
 [must be within range -20°C* to +80°C (0°F* to +175°F)]

Operating temperature pilot operated:

-20°C* to +80°C (0°F* to +175°F)

* Consult our technical service for use below +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 6,3 bar (90 psig) inlet pressure and pressure drop of 0.5 bar (7 psig):

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 litre downstream volume and 6,3 bar (90 psig)

inlet pressure:

Minimum 0,2 sec.

Typical maximum 110 sec.



Materials:

Body: Aluminium

Intermediate body: Aluminium

Elastomers: Synthetic materials

Filter discs: Sintered plastic

Internal components: Brass/steel

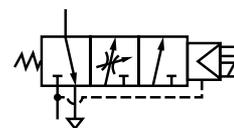
Top plate: Zinc

Exhaust bonnet: Zinc

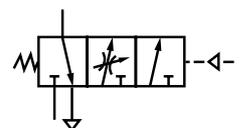
Ordering Information

See *Ordering Information* on the following pages.

ISO Symbols



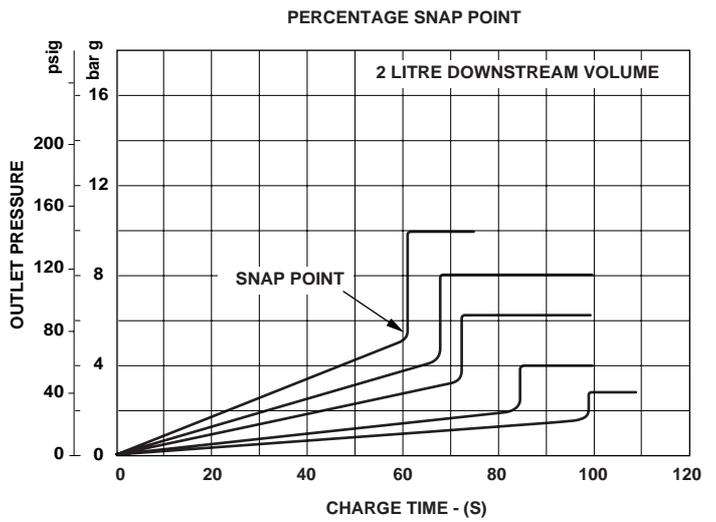
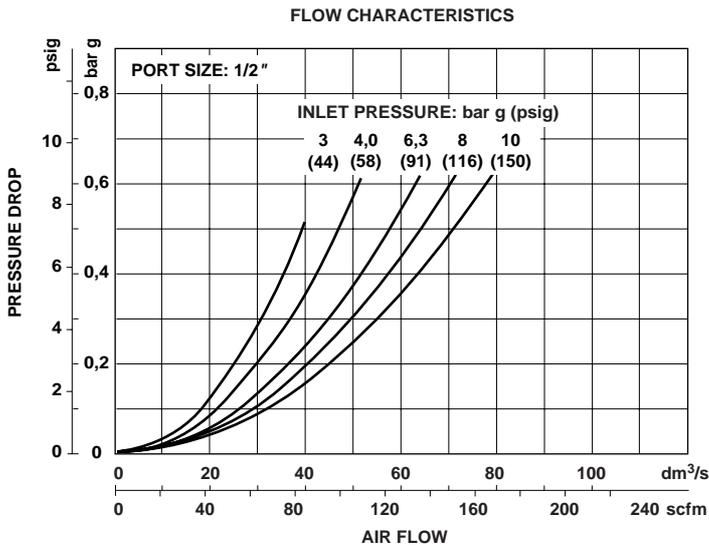
Solenoid operated



Air pilot



Typical Performance Characteristics



Ordering Information. Models listed are with ISO G ports. Solenoid models are with 24 V d.c. coils and plug without indicator.

Port Size	Solenoid Operated* Model	Weight kg	Air Pilot Operated Model	Weight kg
G3/8	P74F-3GC-PFA	1,08	P74F-3GA-NNN	1,05
G1/2	P74F-4GC-PFA	1,05	P74F-4GA-NNN	1,02
G3/4	P74F-6GC-PFA	1,41	P74F-6GA-NNN	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	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

Solenoid Manual Operator	Substitute
Shrouded push button	P
None	N

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

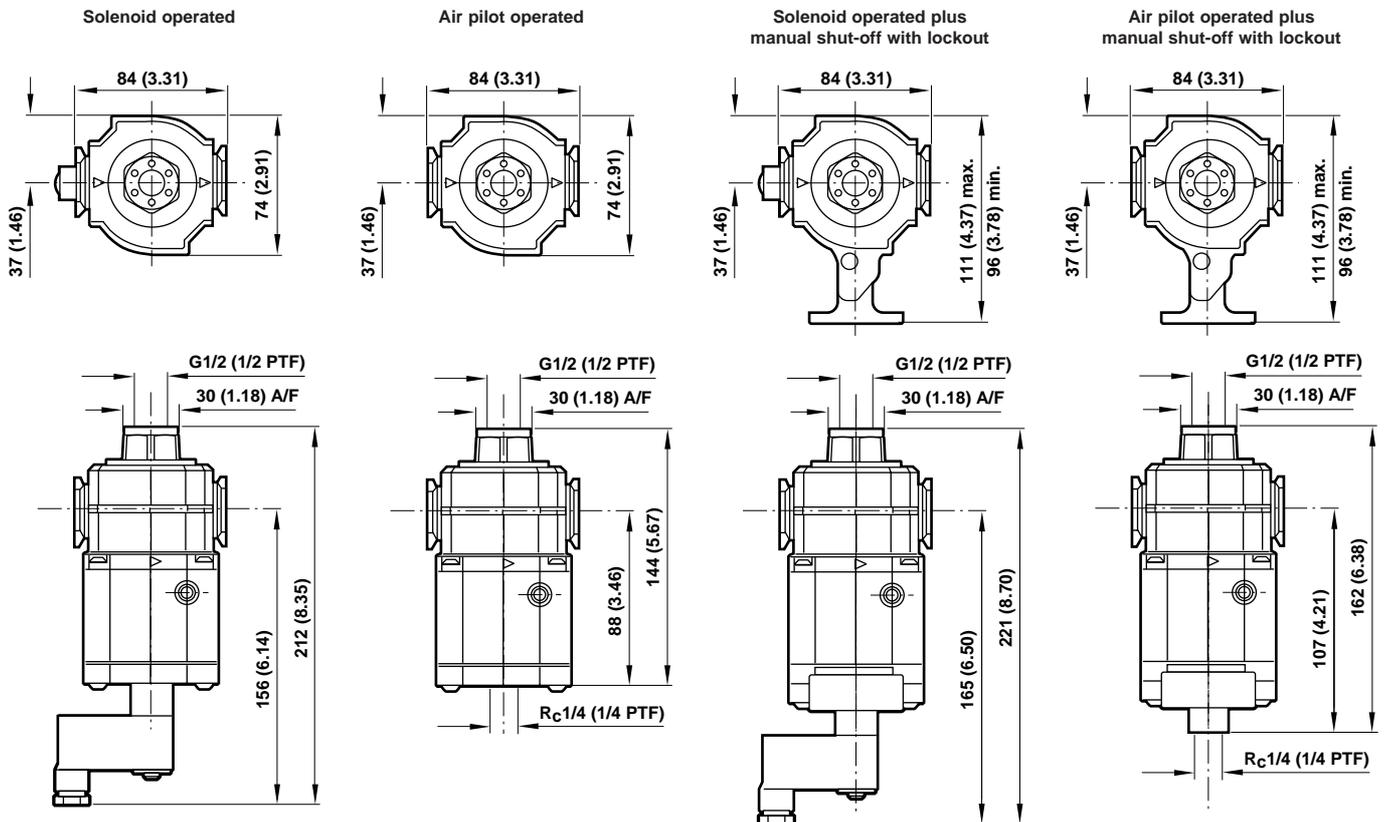


Accessories

	
Exhaust Port Silencer	Plug with Cable Gland for 22 mm Solenoid
MB004B (R1/2)	M/P24121/1* 12–24 V ac/dc Indicator type
MB004A (1/2 PTF)	M/P24121/2 150–230 V ac Indicator type
	M/P24121/3 150–230 V ac Indicator type
	M/P19063 No Indicator

* Reduced light intensity at 12 V.

Dimensions mm (inches)



Service Kits

Item	Type	Part number
Service kit	All models	4384-220

Service kit includes seals for ports, body, flow adjuster, exhaust bonnet, lockout assembly, CNOMO solenoid, flow adjuster, top plate, feed spool, soft start spool and exhaust piston. Also included; main valve, feed valve pin, tamper resistant plug and lockout spring.



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.

Water vapor will pass through these units and will condense into liquid if air temperature drops in the downstream system. Install an air dryer if water condensation could have a detrimental effect on the application.