

P74F - ★★ - ★★

Port	Thread Form	Operator	Solenoid Override	Solenoid Operator	Voltage	Connector
3....3/8"	A....PTF	A....Air pilot	P....Non-locking, shrouded push button	A.....110/120	50/60 Hz.....4/2,5 VA	A....Cable grip
4....1/2"	B....ISO Rc taper	B....Air pilot plus lockout	N....None	B.....220/240	50/60 Hz.....4/2,5 VA	B....Cable grip with indicator lights
6....3/4"	G....ISO G parallel	C....22 mm solenoid		D.....6 Vdc.....2W		N....No connector
		D....22 mm solenoid plus lockout		E.....12 Vdc.....2W		
		L....CNOMO solenoid		F.....24 Vdc.....2W		
		M....CNOMO solenoid plus lockout		Z.....No coil		
				N.....No Solenoid		

TECHNICAL DATA

Valve type: 3-way, normally closed, soft start with optional lockout slide

Fluid: Filtered and lubricated compressed air

Main valve maximum inlet pressure: 17 bar (250 psig) but must not exceed the solenoid rating when solenoid operator is used

Minimum inlet pressure: 3 bar (44 psig)

Operating temperature*: -20° to +80°C (0 to 175°F) but must not exceed the solenoid rating when solenoid operator is used

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

Air operator pilot supply inlet pressure range: Equal to or greater than the main valve inlet pressure, but not less than 3 bar (44 psig) and not greater than 17 bar (250 psig).

Maximum flow with 6,3 bar (90 psig) inlet pressure and a pressure drop of 0,5 bar (7 psig): 57 dm³/s (120 scfm)

Average flow factor (Cv) –

IN to OUT Port: 4,4

OUT to EXHAUST Port: 5,6

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

Adjustable charge time for 2 litre (2 U.S. quart) downstream volume at 6,3 bar (90 psig) inlet pressure: 0,2 seconds minimum to 76 seconds maximum

Pilot port on air operated regulators:

Rc 1/4 with ISO main ports

1/4 PTF with PTF main ports

Exhaust port:

G 1/2 with ISO main ports

1/2 PTF with PTF main ports

Maximum diameter of customer supplied padlock shackle: 5/16" (8 mm)

Materials –

Main body: Aluminum

Intermediate body: Aluminum

Top plate: Zinc

Exhaust bonnet: Zinc

Internal components: Brass/steel

Filter discs: Sintered plastic

Elastomers: Nitrile

OPERATION

Normally closed, 3-way valves block inlet air and exhaust downstream air when the solenoid is de-energized. Air flow from the inlet port to the outlet port occurs when the solenoid is energized.

The soft start function reduces the rate of downstream pressure buildup at system start up. Cylinders and other air operated devices are eased into normal starting positions, reducing the possibility of equipment damage and hazards to the user.

When the optional manually operated lockout slide is closed (pushed in) pilot air is exhausted, the valve returns to the non-energized (closed) position, and downstream air is exhausted. The lockout slide can be locked in the closed position with a customer supplied padlock.

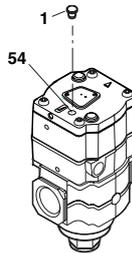
Solenoid operated valves can be actuated and deactivated manually when the solenoid is de-energized and the lockout slide is pulled out by depressing the manual override. Depress override to actuate the valve. Release override to deactivate valve.

INSTALLATION

- Shut off air pressure. Make sure pressure upstream and downstream of the valve has been reduced to zero. Install valve in air line -
 - with air flow in direction of arrow on body,
 - upstream of the air circuit requiring protection,
 - with sufficient clearance to remove parts for service.
- Connect piping to proper ports using pipe thread sealant on male threads only. Do not allow sealant to enter interior of valve.
- Install a muffler in the exhaust port. Order Norgren muffler MB004B for valves with a R1/2 exhaust port or MB004A for valves with a 1/2 PTF exhaust port. Exhaust can also be piped away. Install pipe work at a downward angle from the valve to provide drainage.
- Any electrical connections must be made by a competent, licensed electrician.
- Install a compressed air filter and lubricator immediately upstream of the valve. Install lubricator between the filter and valve. Lubricator should be capable of atomizing oil at low as well as high air flow. See Norgren Publication N/AL.8.900.935 for recommended lubricants.

Adjustment

- The time required to reach full pressure is dependent on the downstream system volume. Units shipped from factory are set to give maximum delay.
- To adjust time delay:
 - Turn on system air supply prior to applying pilot signal to operator. Failure to do so may cause valve to continuously exhaust.
 - Actuate the solenoid (press and hold solenoid override if your solenoid is so equipped), or apply the air pilot signal on air pilot operators.
 - Remove tamper resistant plug (1).
 - Use a 3 mm allen key to turn adjusting screw (54) clockwise to increase and counterclockwise to decrease time delay.
 - Reinstall tamper resistant plug (1).



MAINTENANCE

The P74F valve is not field repairable, and must be returned to the factory for repair in case of malfunction. Do not attempt to disassemble or repair the P74F valve in the field.

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**.

The user of these products is cautioned to conform to all applicable electrical, mechanical, and other codes in the installation and operation of these products.

Through misuse, wear or malfunction, these products can fail in modes which can simultaneously pressurize all ports to the highest applied pressure level. They can also fail to shift as expected upon the application or removal of operator signals. The system designer is warned to consider the failure modes of all component parts used in the system, and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failures. System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

The P74F valve must be returned to the factory for repair in case of malfunction.

Do not use these valves to control a power press clutch or brake.

Before using these products with fluids other than air, for nonindustrial applications, or for life-support systems consult Norgren.