Option selector

P68F – ★★★ – ★★★

Port

6	3/4“
8	1“
A	1-1/4“
B	1-1/2“
N	No yoke

Yoke thread

A	PTF
B	ISO Rc taper
G	ISO G parallel
N	No yoke

Operator

A	Air pilot
B	Air pilot plus lockout
C	22 mm solenoid
D	22 mm solenoid plus lockout
G	32 mm solenoid
H	32 mm solenoid plus lockout
L	CNOMO solenoid
M	CNOMO solenoid plus lockout
N	Direct ported bottom plate

Solenoid Override

P	Non-locking, shrouded push button
N	None

Solenoid Operator

	Voltage	Watts
A	110/120 50/60 Hz	4/2,5 VA
B	220/240 50/60 Hz	4/2,5 VA
D	6 Vdc 2W	
E	12 Vdc 2W	
F	24 Vdc 2W	
Z	No coil	
N	No Solenoid	

Connector

A	Cable grip
N	No connector

Technical features

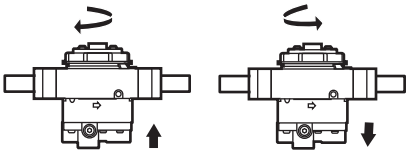
Valve type: 3-way, normally closed, soft start with optional lockout slide
Fluid: Filtered and lubricated compressed air
Main valve maximum inlet pressure:
17 bar (250 psig) pilot actuated
10 bar (145 psig) solenoid actuated
Minimum inlet pressure: 3 bar (44 psig)
Operating temperature*: -20° to +80°C (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 +2°C (+35°F).
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) pilot actuated
10 bar (145 psig) solenoid actuated
Maximum flow with 6,3 bar (90 psig) inlet pressure and a pressure drop of 0,5 bar (7 psig): 147 dm^3/s (312 scfm)
Average flow factor (Cv) –
IN to OUT Port: 11,2; OUT to EXHAUST Port: > 11
Snap pressure: Full flow when downstream pressure
reaches 50 to 80% of inlet pressure.
Adjustable charge time for 25 litre (26 U.S. quart) downstream volume at 6,3 bar (90 psig) inlet pressure: 6,4 seconds minimum to 115 seconds maximum
Pilot port on air operated regulators:
G 1/4 with ISO main ports
1/4” PTF with PTF main ports
Exhaust port:
G 1 with ISO main ports
1” PTF with PTF main ports
Maximum diameter of customer supplied padlock shackle: 5/16” (8 mm)
Materials
Main body, yoke, top plate, bottom plate: Aluminum
Internal components: Brass/steel
Filter discs: Sintered plastic
Elastomers: NBR

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 deactuated 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

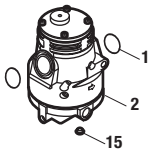
1. Shut off air pressure. Make sure pressure up stream and downstream of the valve has been reduced to zero. Install valve in air line
   - with air flow in direction of arrow on top of yoke,
   - upstream of the air circuit requiring protection,
   - with sufficient clearance to remove parts for service.
2. Connect piping to yoke ports using pipe thread sealant on male threads only.
3. Lubricate o-rings (1) with a light coat of o-ring grease, then place o-rings in grooves in body (2).
4. Place clamp ring under lugs on top of yoke.
5. Make sure arrows on yoke and valve point in same direction, then plug filter into yoke and tighten clamp ring hand tight.
6. Install a muffler in the exhaust port. Order Norgren muffler MB008B for valves with a G1 exhaust port or MB008A for valves with a 1“ PTF exhaust port. Exhaust can also be piped away. Install pipe work at a downward angle from the valve to provide drainage.
7. Any electrical connections must be made by a competent, licensed electrician.
8. 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

1. The time required to reach full pressure is dependent on the downstream system volume. Units shipped from factory are set to give maximum delay.
2. To adjust time delay:

a. Turn on system air supply prior to applying pilot signal to operator. Failure to do so may cause valve to continuously exhaust.
b. Actuate the solenoid (press and hold solenoid override if your solenoid is so equipped), or apply the air pilot signal on air pilot operators.
c. Remove tamper resistant plug (15).
d. Use a 3 mm allen key to turn adjusting screw clockwise to increase and counterclockwise to decrease time delay.
e. Reinstall tamper resistant plug (15).



Maintenance

The P68F 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 P68F 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 P68F valve is not field repairable, and 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.

Use in potentially explosive atmospheres
Code of device according EC directive 94/9/EC
Ex II 2 GD c TX
• Only non-flammable gases to be used as a medium.
• Surface temperature dependant on process fluid temperature and ambient temperature - must be below the ignition temperature of the flammable gas or dust.
• Earth unit and/or pipework to avoid electrostatic discharge.
• Precautions should be taken to prevent hazard from adiabatic compression.
• Use wet cloth for cleaning.
• Protect the unit from object falling onto it.
• Avoid contact with corrosive environment.
• For servicing the unit it is recommended to carry out this work outside of the danger zone.
• For details of ignition hazard assessment contact Norgren.