F74G

Installation & Maintenance Instructions

General Purpose Filter

F74G - ★★★ - ★ ★★

Port	Thread Form	Service Indicator	Drain	Bowl	Element
3....3/8"	A....PTF	D....With mechanical service indicator	A....Automatic	D....Metal with liquid level indicator	1....5 µm
4....1/2"	B....ISO Rc taper	E....With electrical service indicator *	Q....Manual, 1/4 turn	P....Transparent with guard	2....25 µm
6....3/4"	G....ISO G parallel	N....Without indicator			3....40 µm

* See publication IM-900-920 for specifications and electrical wire connections of the optional electric service indicator.

TECHNICAL DATA

Fluid: Compressed air
Maximum pressure:
- Transparent bowl: 10 bar (150 psig)
- Metal bowl: 17 bar (250 psig)

Operating temperature*:
- Transparent bowl: -20° to +50°C (0° to +125°F)
- Metal bowl: -20° to +80°C (0° to +175°F)

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

Particle removal: 5 µm, 25 µm, or 40 µm filter element
Air quality: Within ISO 8573-1, Class 3 and Class 5 (particulates)
Typical flow with a 40 µm element at 6,3 bar (90 psig) inlet pressure and 0,5 bar (7 psig) pressure drop: 83 dm^3/s (176 scfm)
Nominal bowl size: 0,2 litre (7 fluid ounce)
Manual drain connection: 1/8"
Automatic drain connection: 1/8"
Automatic drain operating conditions (float operated):
- Bowl pressure required to close drain: Greater than 0,3 bar (5 psig)
- Bowl pressure required to open drain: Less than 0,2 bar (3 psig)
- Minimum air flow required to close drain: 1 dm^3/s (2 scfm)
- Manual operation: Depress pin inside drain outlet to drain bowl

Materials:
- Body: Aluminum
- Bowl:
  - Transparent with guard: Polycarbonate, steel guard
  - Metal: Aluminum
  - Metal bowl liquid level indicator lens: Transparent nylon
- Element: Sintered polypropylene
- Elastomers: Neoprene and nitrile
- Mechanical service indicator materials:
  - Body: Transparent nylon
  - Internal parts: Acetal
  - Spring: Stainless steel
  - Elastomers: Nitrile

REPLACEMENT ITEMS

Service kit (includes items circled on exploded view)	4380-700
Liquid level lens kit (34, 36, 37, 38)	4380-050
Filter element, 5µm (52)	4338-04
Filter element, 25µm (52)	4338-07
Filter element, 40µm (52)	4338-05
Manual drain (18, 19, 20) (28, 29, 30)	619-50
Automatic drain (21, 22, 23) (31, 32, 33)	
1/8 NPT outlet	3000-10
G 1/8 outlet	3000-97
Mechanical service Indicator (1)	5797-50
Electrical service Indicator (7)	4020-51R

INSTALLATION

1. Shut-off air pressure. Install filter in air line -
   - vertically (bowl down),
   - with air flow in direction of arrow on body,
   - upstream of regulators, lubricators, and cycling valves, as close as possible to the air supply when used as a main line filter,
   - as close as possible to the device being serviced when used as a final filter.
2. Connect piping to proper ports using pipe thread sealant on male threads only. Do not allow sealant to enter interior of unit.
3. Flexible tube with 3mm (0.125") minimum I.D. can be connected to the automatic drain. Avoid restrictions in the tube.
4. Push bowl, or bowl with guard, into body and turn fully clockwise before pressurizing.

SERVICING

1. Open manual drain to expel accumulated liquids. Keep liquids below baffle (51).
2. Clean or replace filter element when dirty, when optional mechanical service indicator shows approximately all red, or when optional electrical service indicator provides an electrical output.

DISASSEMBLY

1. Filter can be disassembled without removal from air line.
2. Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero.
3. Remove bowl - push into body and turn counterclockwise.
4. Disassemble in general accordance with the item numbers on exploded view. Do not remove the drains or the service indicators (1, 7) unless replacement is necessary. Remove and replace only if they malfunction.

CLEANING

1. Clean plastic bowl (25, 42) and lens (3, 36, 47) with warm water only. Do not submerge electrical service indicator (7) in water. Clean indicator (7) with dry, clean cloth. Clean other parts with warm water and soap.
2. Rinse and dry parts. Blow out internal passages in body (6) with clean, dry compressed air. Blow air through filter element (52) from inside to outside to remove surface contaminants.
3. Inspect parts. Replace those found to be damaged. Replace plastic bowl with a metal bowl if plastic bowl shows signs of cracking or cloudiness.

ASSEMBLY

1. Lubricate o-rings, the portion of the manual drain body (18, 28) that contacts the bowl, and the hole in the manual drain body that accommodates the stem of drain valve (19, 29) with o-ring grease.
2. Assemble filter as shown on the exploded view.
3. Arrows on indicator (3, 9) and body (6) must point in same direction. Screw baffle (51) onto center-post (53) until contact is made with element (52), then tighten an additional 1/4 turn. Push bowl, or bowl with guard, into body and turn fully clockwise.
4. Torque Table

	Torque in N-m (Inch-Pounds)
2, 8 (Screw)	2,8 to 3,9 (25 to 35)
22, 32 (Nut)	2,3 to 2,8 (20 to 25)
34, 45 (Screw)	1,7 to 2,3 (15 to 20)
53 (Center-post)	2,0 to 2,7 (18 to 24)

CAUTION

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

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***.

Polycarbonate plastic bowls can be damaged and possibly burst if exposed to such substances as certain solvents, strong alkalies, compressor oils containing ester-based additives or synthetic oils. Fumes of these substances in contact with the polycarbonate bowl, externally or internally, can also result in damage. Clean with warm water only.

Use metal bowl in applications where a plastic bowl might be exposed to substances that are incompatible with polycarbonate.

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







