NORGREN®

B64G Filter/Regulator
Installation & Maintenance Instructions

Option selector

B64G – ★★★ – ★★★ – ★★★

Port
2 1/4"
3 3/8"
4 1/2"
6 3/4"

Thread
A PTF (1/8 PTF gauge ports)
B ISO Rc taper (1/8 ISO Rc gauge ports)
G ISO G parallel (1/8 ISO Rc gauge ports)

Adjustment
K Knob
T T-bar

Drain
A Automatic
M Manual
Q Manual 1/4 turn

Bowl
D Metal
P Transparent with guard

Element
1 5 µm
2 25 µm
3 40 µm

Diaphragm
R Relieving
N Non relieving

Gauge
G With
N Without

Spring (Outlet pressure range) *
F 0,3 ... 4 bar (3 ... 60 psig)
M 0,3 ... 10 bar (3 ... 150 psig)
S *1) 0,7 ... 17 bar (10 ... 250 psig)

* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.
*1) Units with 17 bar (250 psig) adjustment range are available only with the T-bar adjustment, therefore substitute T at the 7th digit and S at the 12th position.

TECHNICAL FEATURES

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 10 bar (150 psig) inlet pressure, 6,3 bar (90 psig) set pressure and 1 bar (15 psig) droop from set: 106 dm3/s (225 scfm)
Automatic drain connection: 1/8"
Automatic drain operating conditions:
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
Nominal bowl size: 0,2 litre (7 fluid oz)
Materials:
Body: Zinc
Bonnet: Aluminium
Valve: Brass
Bowl:
Metal: Aluminium
Transparent, optional: Polycarbonate
Metal bowl liquid level indicator lens, standard: Grilamid
Metal bowl sight glass, optional: Pyrex
Element: Sintered plastic
Elastomers: Synthetic rubber

REPLACEMENT ITEMS

Service kit, contains required items circled:

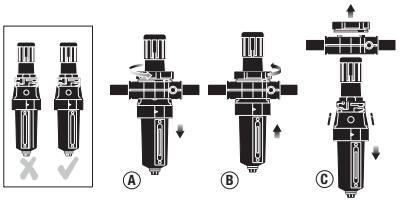
Relieving	4383-200
Non relieving	4383-201
Prismatic sight glass	4380-040
Pyrex sight glass	4380-041
Filter element, 5 µm	4338-01
Filter element, 40 µm	4338-02
Manual drain	684-84
Automatic drain	3000-97
Tamper resistant cover (knob adjustment only)	4355-51

Panel Mounting Dimensions

Panel mounting hole diameter: 52 mm (2.06")
Panel thickness: 6 mm (0.25") max.

INSTALLATION

1. Install unit vertically in air line
• upstream of lubricators and cycling valves,
• with air flow in direction of arrow on body,
• as close as possible to the device being serviced.
2. Before assembling the basic unit into the yoke the port seal o-rings should be lightly smeared with o-ring grease.
3. Locate clamp ring under lugs on top of yoke, offer basic unit into yoke with directional arrows correctly aligned (an interference fit prevents assembly if misaligned) before engaging and fully tightening the clamp ring.
4. Turn bowl or bowl guard fully clockwise into body before pressurizing. Lock symbols on body and bowl guards must align.



5. Install a pressure gauge or plug the gauge ports. Gauge ports can also be used as additional outlets for regulated air.
6. Auto-drain units may be fitted with a short drain pipe and connector, minimum 5 mm bore, to the G1⁄8 bottom outlet.

ADJUSTMENT

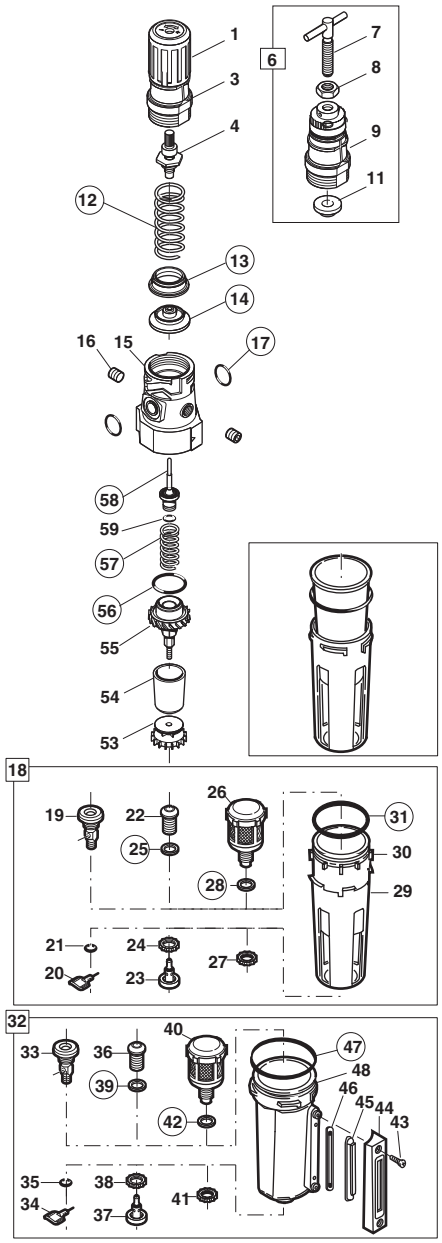
1. Before applying inlet pressure to filter/regulator, turn adjustment (1 or 6) counterclockwise to remove all force on regulating spring (12).
2. Apply inlet pressure, then turn adjustment (1 or 6) clockwise to increase and counterclockwise to decrease pressure setting.
3. Always approach the desired pressure from a lower pressure. When reducing from a higher to a lower setting, first reduce to some pressure less than that desired, then bring up to the desired pressure.

NOTE

With non-relieving filter/regulators, make pressure reductions with some air flow in the system. If made under no flow (dead-end) conditions, the filter/regulator will trap the over-pressure in the downstream line.
4. knob adjustment. Push knob down to lock pressure setting. Pull knob up to release.
Install tamper resistant cover (see Replacement Items) to make setting tamper resistant.
5. T-BAR adjustment. Tighten lock nut (8) to lock pressure setting.

SERVICING

1. Open manual drain to expel accumulated liquids. Keep liquids below baffle (53).
2. To operate automatic drain manually, lift operating pin in bottom outlet with a blunt rod.
3. Clean or replace filter element when dirty.



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DISASSEMBLY

1. Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero. Turn adjustment (1 or 7) fully counterclockwise.
2. For ease of maintenance the unit can be removed from the yoke by unscrewing the clamp ring, which will jack the unit out downwards.
3. To disassemble the filter section lift and turn the filter bowl counterclockwise and remove with bowl o-ring.
4. Disassemble in general accordance with the item numbers on exploded view. Do not remove the drains or the service indicator unless replacement is necessary. Remove and replace only if they malfunction.
5. To disassemble the regulator section turn the adjuster (1 or 7) counter-clockwise to relieve compression on the adjusting spring (12). Unscrew the bonnet assembly (3 or 9) using the spanner flats provided. Remove the adjusting spring (12), slip ring (13) and diaphragm (14). Inspect all components for damage, foreign matter and cleanliness and reassemble using service replacement parts where necessary.

CLEANING

1. Partial cleaning of the filter element is possible by washing the element in soapy water and blowing out thoroughly with compressed air. Replacement by a clean element is recommended. Clean plastic bowl and lens (45) with warm water only. Clean other parts with warm water and soap.
2. Rinse and dry parts. Blow out internal passages in body with clean, dry compressed air.
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 with o-ring grease.
2. Check valve for free movement in the valve guide.
3. Assemble the unit as shown on the exploded view.
4. Torque Table

Item	Nm	Torque in (Inch-Pounds)
3, 9 (Bonnet)	25 ... 30	(227 to 273)
55 (Valve guide)	2 ... 2,7 max	(18 to 25)

5. Assemble baffle (53), contact + 1/4 turn.
6. Turn bowl or bowl with guard fully clockwise into body.

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.
If outlet pressure in excess of the filter/regulator pressure setting could cause downstream equipment to rupture or malfunction, install a pressure relief device downstream of the filter/regulator. The relief pressure and flow capacity of the relief device must satisfy system requirements.
The accuracy of the indication of pressure gauges can change, both during shipment (despite care in packaging) and during the service life. If a pressure gauge is to be used with these products and if inaccurate indications may be hazardous to personnel or property, the gauge should be calibrated before initial installation and at regular intervals during use.
Before using these products with fluids other than air, for non industrial applications, or for life-support systems consult Norgren.