

### Pressure Regulator

R73 \* - \* \* \* - \* \* \*

<b>Flow Type</b> G ... Uni-directional R.... Reverse	<b>Port</b> 2.... 1/4" 3.... 3/8" 4.... 1/2"	<b>Thread Form</b> A.... PTF B.... ISO Rc taper G ... ISO G parallel	<b>Adjustment</b> K.... Knob T.... T-bar	<b>Diaphragm</b> N... Non-relieving R.... Relieving	<b>Spring (Outlet Pressure Range) *</b> F.... 0,3 to 4 bar (5 to 60 psig) M.... 0,3 to 10 bar (5 to 150 psig) S.... 0,7 to 17 bar (10 to 250 psig)	<b>Gauge</b> G ... With N ... Without
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\* 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.

#### TECHNICAL DATA

Fluid: Compressed air  
Maximum pressure: 20 bar (300 psig)  
Operating temperature\*: -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).

Typical flow with 10 bar (150 psig) inlet pressure, 6,3 bar (90 psig) set pressure and 1 bar (15 psig) droop from from set: 60 dm<sup>3</sup>/s (127 scfm)

#### Gauge ports:

1/4 PTF with PTF main ports  
Rc1/4 with ISO Rc main ports  
Rc1/8 with ISO G main ports

#### Materials:

Body: Aluminum  
Bonnet: Aluminum  
Valve: Brass  
Elastomers: Nitrile  
Bottom plug: Acetal

#### REPLACEMENT ITEMS

Service kit (includes items circled on exploded view)  
Relieving.....4381-600  
Non-relieving.....4381-601  
Tamper resistant cover and wire ..... 4455-51

#### PANEL MOUNTING DIMENSIONS

Panel mounting hole diameter: 48 mm (1.89")  
Panel thickness: 2 to 6 mm (0.06" to 0.25")

#### INSTALLATION

- Shut off air pressure. Install regulator in air line -
  - with air flow in direction of arrow on body,
  - upstream of lubricators and cycling valves. R73R reverse flow regulators can be installed upstream or downstream of cycling valves,
  - as close as possible to the device being serviced.
  - at any angle.
- Connect piping to proper ports using pipe thread sealant on male threads only. Do not allow sealant to enter interior of regulator.
- Install a pressure gauge or plug the gauge ports. Gauge ports can also be used as additional outlets for regulated air.
- Install a Norgren general purpose filter upstream of the regulator.

#### ADJUSTMENT

- Before applying inlet pressure to regulator, turn adjustment (1 or 7) counterclockwise to remove all force on regulating spring (12).
- Apply inlet pressure, then turn adjustment (1 or 7) clockwise to increase and counterclockwise to decrease pressure setting.
- 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 regulators, make pressure reductions with some air flow in the system. If made under no flow (dead-end) conditions, the regulator will trap the over-pressure in the downstream line.

- KNOB ADJUSTMENT.** Push knob down to lock pressure setting. Pull knob up to release. Install tamper resistant cover and wire (see Replacement Items) to make setting tamper resistant.
- T-BAR ADJUSTMENT.** Tighten lock nut (8) lock pressure setting.

#### DISASSEMBLY

- Regulator can be disassembled without removal from air line.
- Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero.
- Turn adjustment (1 or 7) fully counterclockwise.
- Disassemble in general accordance with the item numbers on exploded view.

#### CLEANING

- Clean parts with warm water and soap.
- Rinse and dry parts. Blow out internal passages in body with clean, dry compressed air.
- Inspect parts. Replace those found to be damaged.

#### ASSEMBLY

- Lubricate o-rings, valve stem (21), adjusting screw threads and tip (5, 7) and the outer circumference and both sides of the thrust washer (4) with a light coat of good quality o-ring grease.
- Assemble the unit as shown on the exploded view.
- Torque Table
 

Item	Torque in Nm (Inch-Pounds)
2, 9 (Screw)	2,3 to 3,4 (20 to 30)
16 (Reverse flow valve on R73R models)	0,7 to 1,1 (6 to 10)
18 (Bottom plug)	2,3 to 3,4 (20 to 30)

#### 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.

If outlet pressure in excess of the regulator pressure setting could cause downstream equipment to rupture or malfunction, install a pressure relief device downstream of the 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.

