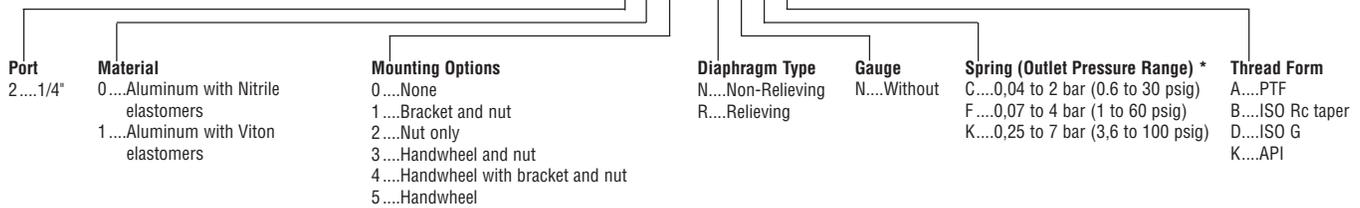


Aluminum Instrument Regulator
R38 - 2★ - ★★ - ★★★


* 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 (290 psig)

Operating temperature*:

-40° to +80°C (-40° to +176°F)

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

Typical flow with 7 bar (100 psig) inlet pressure, 1 bar (15 psig) set pressure and 0,05 bar (1 psig) droop from set: 8 dm³/s (17 scfm)

Maximum bleed flow at 2 bar (30 psig) outlet pressure (relieving models only): 1,5 cm³/s (0.003 scfm)

Gauge ports: 1/4", thread form same as main ports

Materials:

Body, bonnet, base: Aluminum

Adjusting screw: Steel

Elastomers, diaphragm: Nitrile

REPLACEMENT ITEMS

Service Kits (includes items circled on exploded view):

Relieving

2 bar (30 psig) regulating springR38-100R

4 and 7 bar (60, 100 psig) regulating spring....R38-101R

Non relieving

2 bar (30 psig) regulating spring.....R38-100NR

4 & 7 bar (60, 100 psig) regulating spring.....R38-101NR

PANEL MOUNTING DIMENSIONS

Panel mounting hole diameter: 42 mm (1.65")

Maximum panel thickness: 6 mm (0.24")

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,
 - 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 unit.
- 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 with a 5 micron element upstream of the regulator.

ADJUSTMENT

- Before applying inlet pressure to regulator, turn adjustment (1) counterclockwise to remove all force on regulating spring (6).
- Apply inlet pressure, then turn adjustment (1) clockwise to increase and counterclockwise to decrease outlet 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.

- Once required pressure is achieved tighten locknut (2) to lock 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 screw counterclockwise to remove all force on regulating spring (6).
- 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 (16) with clean, dry compressed air.
- Inspect parts. Replace those found to be damaged.

ASSEMBLY

- Lubricate threads of adjusting screw (1), recess of upper spring rest (5), and o-rings with a light coat of good quality o-ring grease.
- Assemble the unit as shown on the exploded view. Assemble bonnet (3) to body (16) so that relief hole is above outlet port.
- Torque Table

Item	Nm	(Inch-Pounds)
4, 8 (screw)	3,3 to 7,3	(30 to 66)

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.

