

Miniature Soft Seat Fluid Pressure Regulator

1. Description

The Nordson miniature soft seat fluid pressure regulator is designed for use with hydraulic and pneumatic medias. The regulator body and wetted parts are constructed of stainless steel. It is a non-venting model that regulates the fluid pressure flow out of high pressure pumps. Seals are Buna-N for use with oils and water based materials.

To obtain part numbers and ordering information about the service kits, refer to the *Parts* section.

2. Specifications

See Figure 1 for the miniature soft seat fluid pressure regulator dimensions.

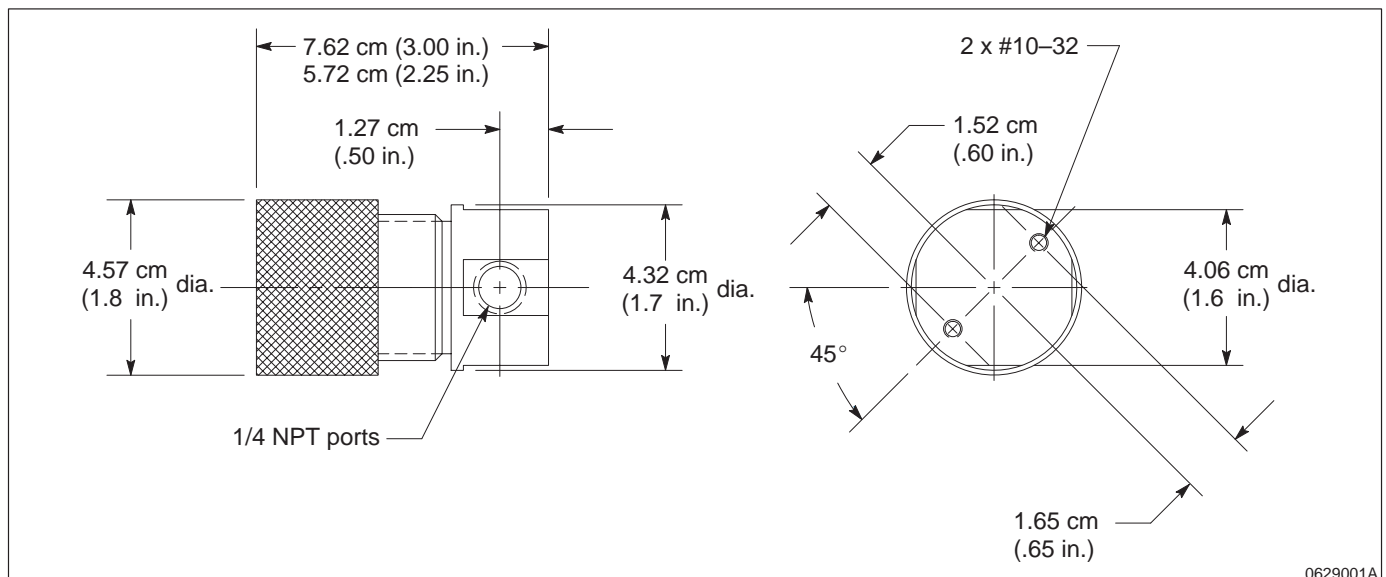


Fig. 1 Miniature soft seat pressure regulator dimensions

Maximum inlet pressure	413.8 bar (6000 psi)
Output pressure range	0–5.5 bar (0–80 psi)
Weight	0.23 kg (0.5 lb)
Bolt holes	#10-32 UNF
Spacing	3.2 cm (1.25 in.) center-to-center

3. Repair



WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.



WARNING: System or material pressurized. Relieve pressure. Failure to observe this warning may result in serious injury or death.

The miniature soft seat fluid pressure regulator can be serviced while it is still connected to the line. However, servicing the regulator might be easier by placing it vertically in a vise. Be sure to relieve all fluid pressure from the line before servicing the regulator.

Disassembly

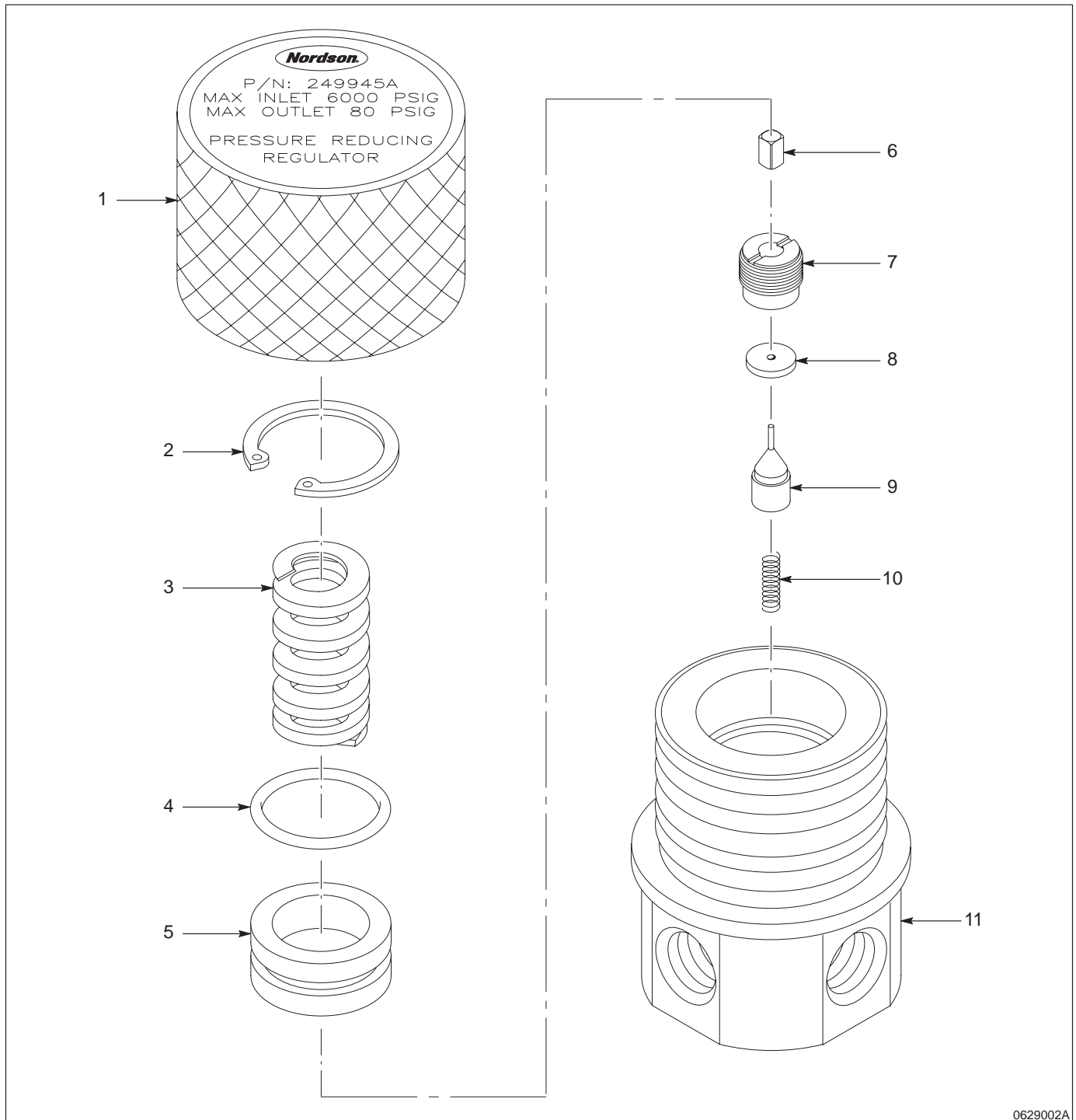
NOTE: See Figure 2. Follow these steps to disassemble the regulator.

1. Remove the control knob (11) and take load spring (3) out.
2. Remove the retaining ring (2) with snap-ring pliers.
3. Using the load spring (3) as a tool, insert it into the piston sensor (5) and lift the sensor out of the regulator body (11).

NOTE: The plunger may stick inside the seat retainer cavity.

4. Remove the plunger (6) with needle nose pliers or tweezers.
5. Place the shoulders of the valve body into a vise. Be careful not to mar the surface of the regulator body. Use a smooth-jawed vise or a vise with a soft cloth to prevent scratching the regulator body.
6. Remove and discard the seat retainer (7) and the soft seat (8), using a flat blade screw driver.
7. Remove the main valve (9) and main valve spring (10).
8. Remove and discard sensor O-ring (4).

Disassembly (contd.)



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Fig. 2 Exploded view of miniature soft seat fluid pressure regulator

- | | | |
|-------------------|------------------|-----------------------|
| 1. Control knob | 5. Piston sensor | 9. Main valve |
| 2. Retaining ring | 6. Plunger | 10. Main valve spring |
| 3. Load spring | 7. Seat retainer | 11. Regulator body |
| 4. O-ring | 8. Soft seat | |

Assembly

NOTE: See Figure 2. Follow these steps to reassemble the miniature soft seat fluid pressure regulator and to install the regulator service kit.

1. Place the regulator body (11) in a vise and tighten.
2. Using needle nose pliers or tweezers, insert the main valve spring (10) and main valve (9) into the regulator body (11).
3. Press the soft seat (8) into the bottom of the seat retainer (7).
4. Screw the seat retainer into the regulator body and tighten to 9.04–10.17 N•m (80–90 in.-lb).
5. Insert the plunger (6) into the center of the seat retainer.
6. Install the O-ring (4) in the groove on the piston sensor.

NOTE: Lubricate the O-ring with Parker O-ring lubricant, or an equivalent lubricant before installing it.

7. Install the piston sensor (5).
8. Install the retaining ring (2).
9. Insert the load spring and reinstall the control knob.

4. Parts

NOTE: The following parts list provides ordering information for the miniature soft seat fluid pressure regulator and for the service kit. If you need assistance in ordering, contact your Nordson Corporation representative.

Miniature Soft Seat Fluid Pressure Regulator

See Figure 3.

Item	Part	Description	Quantity	Note
—	249 945	Regulator, pressure, miniature, soft seat fluid	1	

Service Kit

See Figure 3.

Item	Part	Description	Quantity	Note
—	249 953	Kit, service, miniature, soft seat fluid	1	
1	-----	• Piston sensor O-ring	1	
2	-----	• Soft seat	1	
3	-----	• Main valve	1	
4	-----	• Main valve spring	1	
5	-----	• Seat retainer	1	
6	-----	• Plunger	1	
7	-----	• Retaining ring	1	

**Miniature Soft Seat Fluid
Pressure Regulator, Service Kit
Illustration**

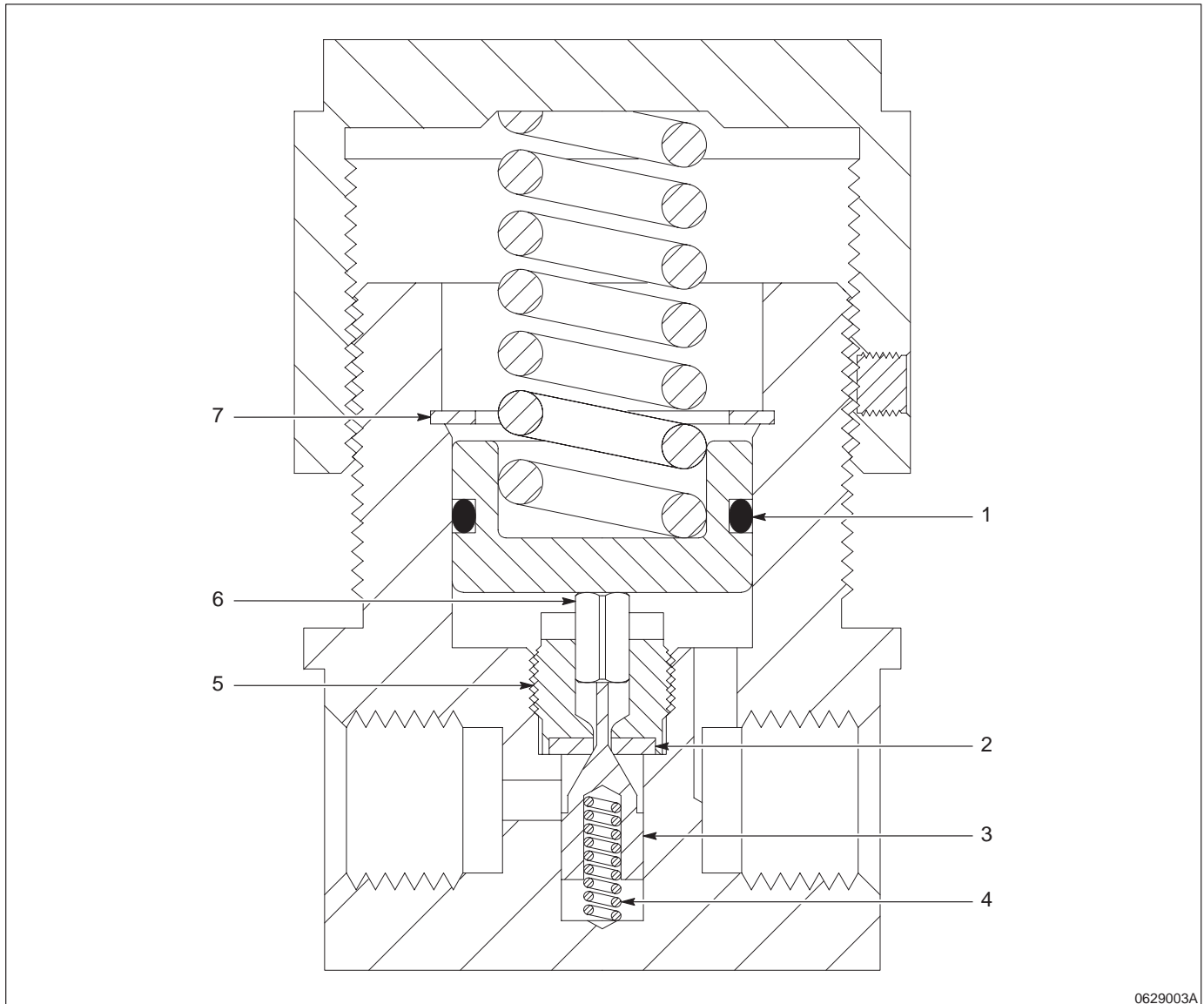


Fig. 3 Miniature soft seat fluid pressure regulator, service kit

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