



Series GDR, Gas Delivery Regulator User Instructions

Scope and Intended use:

These user instructions are applicable for Generant Series GDR Gas Delivery Regulators, sizes 1/4", 3/8", 1/2", 3/4" and 1" (Connection Types NPT, SAE, BSPT and BSPP).

The intended use of these regulators is to reduce an inlet pressure to a predetermined outlet pressure in a given system. All Series GDR Regulators are supplied from the factory "Cleaned and Packaged for Oxygen Service".

Technical Data:

GDR Series Regulators are 100% factory tested for leakage, droop, and flow performance. Every regulator is marked with Manufacturer, Part Number, Date Code, Maximum Inlet Pressure, Set Pressure Range, and Direction of Flow (forged in body).

Maximum Inlet Pressure: 580 Psig (40 Bar)

Spring Model Code	Outlet Pressure Range
A (Black)	0 - 55 Psig (0 - 3.8 Bar)
B (Red)	50 - 135 Psig (3.5 - 9.3 Bar)
C (Blue)	125 - 225 Psig (8.6 - 15.5 Bar)
D (Blue)*	225 - 450 Psig (15.5 - 31.0 Bar)

*Available for 1/4", 3/8", and 1/2" models only.

Maintenance:

GDR series regulators are designed to be field serviceable and fully repairable.

Repair kits are readily available and can be supplied as convenient pre-assembled repair kits or as loose replacement parts. GDR springs can be interchanged for A, B, and C range models. Instructions on how to order replacement parts / repair kits and repair your GDR unit are available upon request.



WARNING

Generant Series GDR Regulators are supplied "Cleaned for Oxygen Service" from the factory in heat sealed poly bags. Once removed from the bag, the integrity of this cleaning has been compromised. Proper handling should be used to ensure the integrity and cleanliness of the system.

Installation:

1. All GDR series regulators are 100% factory tested.
2. The piping system should be complete before installation of the regulator.
3. All upstream piping and connection ports must be free from particulate contamination that is naturally generated during the assembly of the piping system. This should be accomplished by purging the system with clean, dry gas.
4. Visually inspect the port for cleanliness before installing the regulator.
5. It is recommended that the adjustment screw be turned counterclockwise until no load is present on the spring prior to installing into and pressurizing the system.
6. Ensure that the regulator is piped in the proper direction according to the directional flow arrow forged on the regulator body.
7. 4 Port Regulators are supplied with 1/4" NPT gage ports and include one pipe plug.
8. Once regulator is properly connected and inlet pressure is present, turning adjustment screw clockwise will increase outlet pressure. Regulators are non-relieving. The regulator's outlet pressure cannot be decreased with pressure applied and regulator outlet blocked. To decrease outlet pressure, the outlet line must vent excess pressure as screw is turned counterclockwise.
9. Once desired set pressure is achieved, the regulator can be locked by tightening the lock nut on the adjustment screw.

For NPT / BSPT / BSPP Connections Only:

1. Teflon tape should be used to seal the connection between the regulator and the piping system.
2. Beginning with the first thread, wrap tape in the direction of the male tapered thread spiral, and join with a slight overlap.
3. Make sure tape does not overhang the first thread, as the tape could shred and get into the system.
4. Cut off excess tape. Draw the free end of the tape around the thread tautly so that it conforms to the threads. Press in firmly at the overlap point. The connection is now ready for makeup. If any additional pipe sealant is being used, **do not** apply it to the first thread of the valve.
5. Thread the regulator into the connection port hand tight. Tighten with an open-end wrench until leak tight.

Safe Component Selection

When selecting a component, the total system design must be considered to ensure safe, trouble-free performance. Component function, materials compatibility, adequate ratings, proper installation, operation, cleanliness, and maintenance are the responsibility of the system designer and user.

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