

The NGR Series gas regulators comply with and are certified to **CSA 6.22-2019/ANSI Z21.80-2019 for 2psig, 5psig & 10psig inlet Class I(14"wc max Outlet) and Class II(2psig max Outlet) applications.** They are multipurpose lever acting regulators used on many applications involving dry non corrosive gases such as air, nitrogen, propane, LPG, natural gas, and others. They offer CSA certified OPD internal relief and Vent Limiting options and non-internal relief.

WARNING: A regulator may vent some gas to the atmosphere. Where ignition sources may be present, vented gas may accumulate and cause fire or explosion resulting in personal injury, death and/or property damage.

WARNING: Failure to follow these Instructions, National Fuel Gas Code(NFPA 54) guidelines, local/state codes when installing/maintaining gas regulators can result in an explosion and/or fire causing property damage and personal injury or death. ONLY A QUALIFIED PERSON MUST INSTALL OR SERVICE THE REGULATOR.

Installation

Installation shall be performed in accordance with local codes, or in the absence of local codes, in accordance with the National Fuel Gas Code, ANSI Z223.1/NFPA 54.

1. Confirm proper regulator has been chosen for the defined application.
2. Remove inlet and outlet protection plugs from the regulator. Verify no debris is within the inlet or outlet of the regulator. **TURN OFF GAS SUPPLY TO MOUNTING LOCATION.**
3. Apply proper pipe joint sealant to the male pipe threads only. If flange connections are used, ensure appropriate gasket is installed between mating flanges.
4. Gas MUST flow in direction of the 'arrow' on the underside of the regulator. 'IN' is indicated on the inlet side of the

CAUTION: USE PRECAUTION WHEN RUNNING VENT PIPING. ENSURE END OF VENT PIPING IS ADEQUATELY AWAY FROM ANY IGNITION SOURCES.

5. The NGR regulators have 'INTERNAL RELIEF'(OPD) capability and comply with and certified to **CSA 6.22-2019/ANSI Z21.80-2019**, the regulators MUST be vented as per 6 & 7 below.
6. **OUTDOOR INSTALL** – When installing in an outdoor environment or where debris or excessive moisture may be in the air the 'VENT' should never face upward allowing debris or liquid to enter. The 'VENT' screen should never be removed unless a 'VENT' piping is needed to route the venting to another location.
7. **INDOOR INSTALL** – As per applicable local and state codes may dictate, a separate 'VENT' piping is required for each regulator to allow the regulator to function properly and relief gas in the case of internal relief. Do not combine vent lines. Vent pipe inner diameter should increase one nominal pipe size approximately every 15 feet of length. This is important for proper performance. *Example: 3/8" to 1/2" to 3/4", etc.*
 - a. **VENT LIMITER OPTION – Certified CSA 6.22-2019/ANSI Z21.80-2019** to 2 psig. NMT tested to 10psig. The Vent Limiter option(VL) may be used to limit gas flow in the event of a diaphragm rupture. To ensure the installation complies with CSA 6.22-2019/ANSI Z21.80-2019 the **VENT LIMITER(VL) MUST ALWAYS BE UPRIGHT TO FUNCTION PROPERLY. THE VENT ELBOW(VE) MAY BE NEEDED FOR PROPER ORIENTATION OF THE VENT LIMITER.** See *Vent Limiter Option below.*
8. Tighten inlet/outlet piping to proper torque. If flange connections are used ensure bolts are tightened evenly and do not stress the flange by uneven piping or improper flange-to-flange spacing as this may result in broken flanges or leakage and is not covered under manufacturer warranty.

Start-up Procedure

1. Verify Inlet pressure does not exceed regulator and/or orifice MAOP as shown in the specification tables. Mount pressure gauge downstream of the regulator to monitor regulator outlet pressure.
2. With the downstream pressure valve closed, slowly open the inlet valve. Allow the pressure to build slowly until proper downstream pressure is shown on the gauge.

Outlet Pressure Adjustment

1. Remove spring cap from regulator.
2. With proper tool rotate adjustment ferrule CLOCKWISE to INCREASE pressure and COUNTERCLOCKWISE to DECREASE pressure. Replace Spring Cap.



ANSI Z21.80

ALL NGR Regs meet and/or exceed CSA 6.22-2019/ANSI Z21.80-2019

Maximum Inlet Pressure:

CSA Certified: 10 psig

Outlet Pressure Range(Model Specific):

NMT Tested: 125 psig

2"wc – 7 psig

Maximum Emergency Inlet Pressure:

CSA Certified: (Class I) 14"wc max, (Class II) 2psig max

Ambient Temperature Range:

175 psig

-40F – 150F

Gas Type:

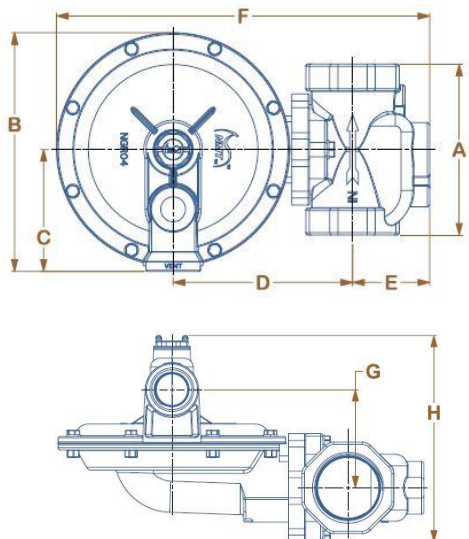
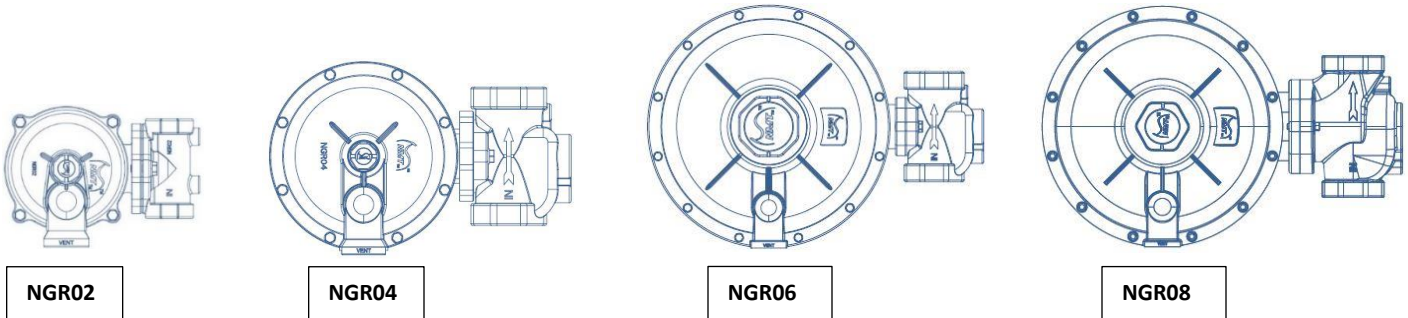
Natural Gas, LPG, air, other dry non-corrosive gas

Mounting Position:

Horizontal and Vertical

Options:

CSA Certified: Vent Limiter, Internal relief (OPD)



Model	Pipe Size	Vent (NPT)	Dimensions(inches)								Wt.(lb)
			A	B	C	D	E	F	G	H	
NGR02	1/2", 3/4", 1", 1-1/4"	1"	4.0	5.7	3.2	4.2	1.2	7.9	3.0	7.0	3.75
NGR04	1-1/4", 1-1/2", 2" 2FL, 3FL	1"	5.8	8.0	4.1	6.0	2.6	12.6	3.4	7.1	9.7 2" FL 25 3" FL 35
NGR06	1-1/4", 1-1/2", 2" 2FL, 3FL	1"	5.8	12.7	6.4	8.7	2.6	17.7	4.4	11.6	18.25 2" FL 35 3" FL 45
NGR08	1-1/4", 1-1/2", 2" 2FL, 3FL	1"	7.5	12.7	6.4	10.1	2.6	19.1	4.4	12.8	24.65 2" FL 42 3" FL 52

All Flanges ANSI 125 class, non raised. Flange to Flange = 10".

VENT LIMITER OPTION

Vent Limiter (VL) – MUST be in upward position. INDOOR USE ONLY.

Vent Elbow (VE) – MUST be used when needed to orient VL in upward position.

