

N-H420 NG Vapor Regulator

**5233-1029
Specification**

- Mounts vertically or horizontally
- Boost pressure (air only) up to 15 psi [103 kPa] (no fuel mixture allowed)
- Positive pressure version flows fuel at 1.0 CFM with outlet at atmospheric pressure

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N-H420 NG Vapor Regulator 5233-1029

General Information

The N-H420-NG regulator is designed for use with stationary engines fueled by natural gas, or in on-highway applications fueled by compressed natural gas (CNG).

WARNING

The N-H420-NG should be installed and maintained per these instructions and all applicable federal, state, and local laws and codes.

WARNING

Per the National Fire Protection Association (NFPA) Standard 37 for Stationary Engine Installation and Use: an enclosure or engine room must have adequate ventilation to prevent an accumulation of flammable vapor/gas. If this is not practical, a detection system must be installed.

IMPORTANT

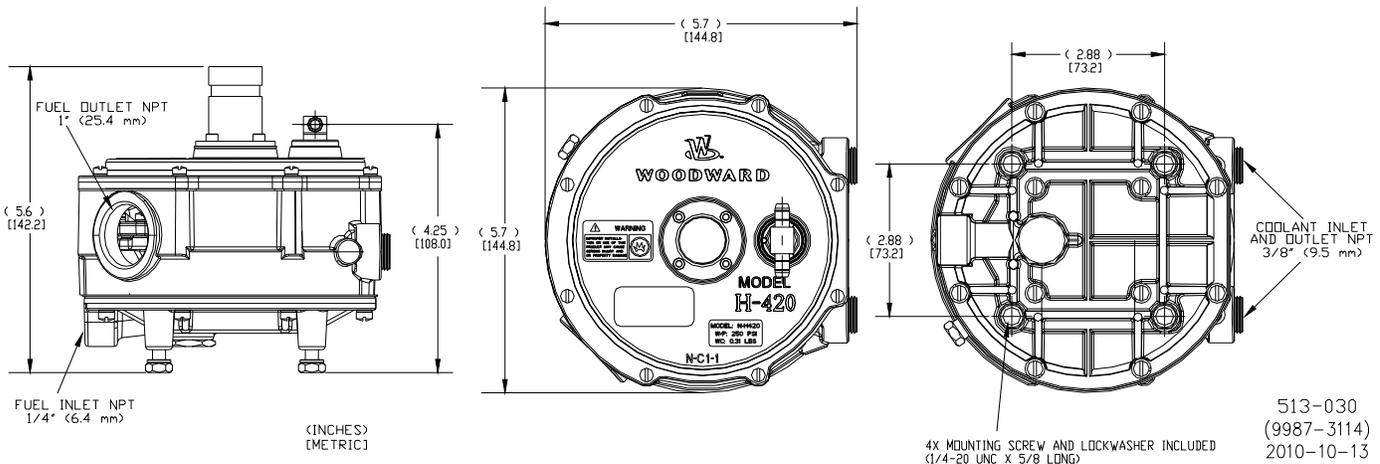
SPECIAL NOTE IN REGARDS TO NFPA PAMPHLET 58: By NFPA definition, a regulator is not considered a positive shut-off valve. An approved automatic shut-off device is required to be installed. This will shut off the fuel supply should the engine fail while unattended. Shut-off devices come in vacuum- or solenoid-actuated configurations.

WARNING

The N-H420-NG is rated to 250 psi inlet pressure. In CNG applications (where tank pressure may exceed 3000 psi), a separate high-pressure regulator must be installed between the tank and the N-H420-NG to reduce the incoming pressure below 250 psi.

Operation

Natural gas enters the regulator primary chamber, and the pressure of the incoming gas is reduced to approximately 1.5 psi. The positive pressure N-H420-NG works well in venturi applications where the vacuum signal to the regulator outlet may be weak at low engine speeds. It will flow fuel at a volumetric rate of approximately 1 CFM with the outlet at atmospheric pressure. Flow is interrupted when approximately 8 inches of water backpressure is developed at the outlet.



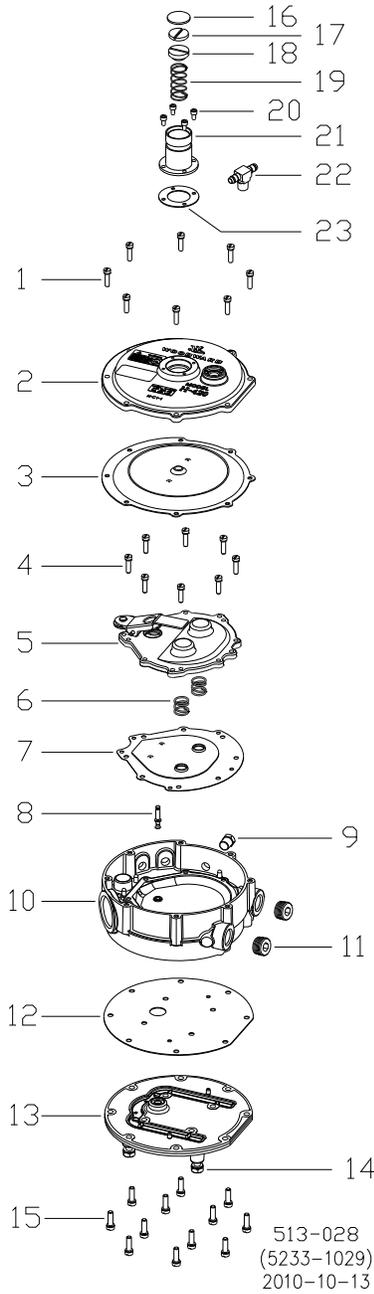
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Installation

The N-H420-NG should be mounted as close to the carburetor as possible, with the fuel outlet placed in the lowest position for best flow.

Service

The N-H420-NG should be periodically checked for leakage. If the unit requires service, we suggest you take it to a qualified service technician. If not available, Woodward will furnish a list of repair facilities or provide service information.



No.	Part No.	Description	Qty.
1	1031-1273	Screw – #8-32 x 0.625 Fillister, SEMS, Split Lock Washer	8
2	3550-1581	Cover – w/ Hole, Secondary Diaphragm, Regulator, N-H420	1
3	6612-1010	Diaphragm – Assy, Secondary, Regulator, N-H420	1
4	1031-1273	Screw – #8-32 x 0.625 Fillister, SEMS, Split Lock Washer	8
5	3550-1175	Cover – Assembly, Pos Pressure, Regulator, N-H420	1
6	N-S3-4	Spring – Primary, Regulator, N-H420	2
7	N-D1-3A	Diaphragm – Assembly, Primary, Regulator, N-H420	1
8	N-P1-3	Pin – Primary Valve, Regulator, N-H420	1
9	1223-1150	Plug – 1/8 NPT Hex Pipe Plug N-2007	1
10	N-B1-1CA	Body – with Jet Sub-Assy, LPG, Regulator, N-H420	1
11	217027	Plug – Soc Hd Pipe (T-086) 0.375-18 NPTF, Flush, Stl	2
12	N-G1-1	Gasket – Gas & Water Chamber, Regulator, N-H420	1
13	6070-1043	Plate – Assembly, Inlet, Natural Gas, Regulator, N-H420	1
14	N00-6402	Screw – 1/4-20 UNC x 5/8 Hex Head, SEMS	4
15	1031-1311	Screw – 10-24 UNC x 0.625, Fil Hd, SEMS w/LW	12
16	N-C2-3	Cap – Primary Adjustment, Tamper Resistant, N-51	1
17	3381-1010	Screw – Locking, Spring Adj, Model N-H420, Positive Pressure	1
18	5352-1000	Screw – Spring Adjust, Model N-H420, Positive Pressure	1
19	N-S3-2-P	Spring – Secondary, Pos Pressure, Regulator, N-H420	1
20	1036-611	Screw – Soc Hd Cap (T-077) #6-32, 0.250 Long, Stl	4
21	4250-1051	Cap – Spring Adjust, Positive Pressure, Regulator, N-H420	1
22	1295-1105	Fitting – Male Branch Tee, 1/8-27 NPT, 1/4 Hose Barb	1
23	N00-5255-P	Gasket – Pos Pressure, Cover, Regulator, N-H420	1

Ordering Information

Part No.	Description
5233-1029	N-H420-NG Natural Gas Regulator, Adjustable Positive Pressure

We appreciate your comments about the content of our publications.

Send comments to: icinfo@woodward.com

Please reference publication **51398**.



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