



64 Series High Pressure Regulators

Introduction

The 64 Series adjustable high-pressure regulators offer a wide range of available pressure ranges. High-pressure regulators usually reduce tank pressure to an intermediate pressure for use by another regulator. They may be used as high-pressure regulators on distribution systems when used in conjunction with first-stage downstream regulators.

When equipped with an internal relief valve (64SR Series), the regulator may be used as a final-stage regulator on high-pressure systems. It may also be used as a first-stage regulator when set at 10 psig (0,69 bar) or less.

The 64KB Series has a special Polytetrafluoroethylene (PTFE) diaphragm protector that makes it suitable for anhydrous ammonia (NH₃) service. The 1/4-inch FNPT tapped and plugged side outlet can be used to install a pressure gauge or a hydrostatic relief valve.

Body Size and End Connection Style

End: 1/2-inch threaded NPT

Side Outlet: 1/4-inch threaded NPT

Spring Case Vent

1/4-inch threaded NPT with screen

Features

- Versatility
- Body Side Connection
- Easy Maintenance
- UL Listed

Temperature Capabilities

-20° to 150°F (-29° to 66°C)

Maximum Inlet Pressure

250 psig (17,2 bar)

Maximum Emergency Outlet Pressure

The value of 220 psig (15,2 bar) is designated strictly for emergency outlet pressure and not for maximum outlet (operating) pressure. This should be incorporated to distinguish safety pressures from operating pressures.

Outlet Pressure Ranges

3 to 100 psig (207 mbar to 6,9 bar) in four ranges

See Table 1

Flow Coefficient

Wide-Open C_g: 35,6

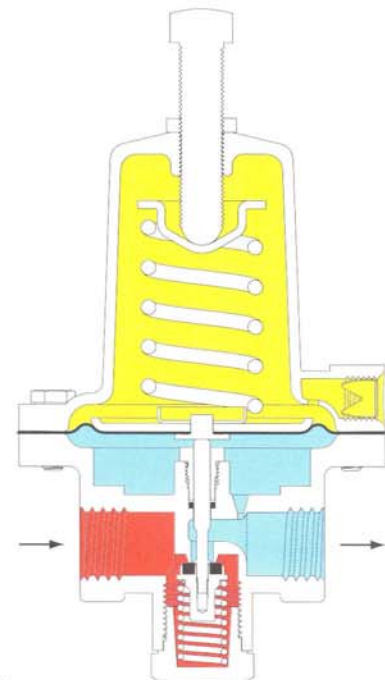
Additional Technical Data

For more technical information, contact your local LP-Gas Equipment Distributor or log on to: www.emersonprocess.com/regulators/lp



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Figure 1. 64 Series High Pressure Regulator



■ INLET PRESSURE
■ OUTLET PRESSURE
■ ATMOSPHERIC PRESSURE

M1020

Figure 2. Operational Schematic

Table 1. Outlet Pressure Ranges

| OUTLET PRESSURE RANGE, PSIG (bar) | SPRING PART NUMBER | SPRING COLOR |
|-----------------------------------|--------------------|--------------|
| 3 to 15 (207 mbar to 1,0 bar) | 1D892327022 | Red |
| 5 to 35 (0,3 to 2,4) | 1D665927022 | Blue |
| 30 to 60 (2,1 to 4,1) | 1D745527142 | Green |
| 35 to 100 (2,4 to 6,9) | 1E543627142 | Yellow |

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Table 2. Construction Materials

| BODY | REGULATOR SPRING | SPRING CASE | STEM GUIDE AND DISK HOLDER | DIAPHRAGM | VALVE STEM |
|-------------------|------------------|-------------------|----------------------------|---------------|-----------------|
| Die-cast aluminum | Steel | Die-cast aluminum | Stainless steel | Nitrile (NBR) | Stainless steel |

Table 3. Capacities

| 64 SERIES | | |
|-------------------------|---------------------------------|--|
| Outlet Pressure Setting | Spring Range | Capacity in BTU/hr (SCMH) of Propane ⁽¹⁾⁽²⁾ |
| 10 psig (0,69 bar) | 3 to 15 psig (0,21 to 1,0 bar) | 2 625 000 (29,6) |
| 20 psig (1,4 bar) | 5 to 35 psig (0,34 to 2,4 bar) | 3 600 000 (40,5) |
| 40 psig (2,8 bar) | 30 to 60 psig (2,1 to 4,1 bar) | 4 150 000 (46,7) |
| 50 psig (3,4 bar) | 35 to 100 psig (2,4 to 6,9 bar) | 5 250 000 (59,1) |
| 64SR SERIES | | |
| Outlet Pressure Setting | Spring Range | Capacity in BTU/hr (SCMH) of Propane ⁽¹⁾⁽²⁾ |
| 10 psig (0,69 bar) | 3 to 15 psig (0,21 to 1,0 bar) | 2 625 000 (29,6) |
| 15 psig (1,0 bar) | 5 to 20 psig (0,34 to 1,4 bar) | 3 000 000 (33,8) |
| 20 psig (1,4 bar) | 5 to 35 psig (0,34 to 2,4 bar) | 3 600 000 (40,5) |
| 64KB SERIES | | |
| Outlet Pressure Setting | Spring Range | Capacity in SCFH (SCMH) of Ammonia ⁽²⁾ |
| 10 psig (0,69 bar) | 3 to 15 psig (0,21 to 1,0 bar) | 1650 (46,7) |
| 15 psig (1,0 bar) | 5 to 20 psig (0,34 to 1,4 bar) | 2050 (58,0) |
| 20 psig (1,4 bar) | 5 to 35 psig (0,34 to 2,4 bar) | 2250 (63,7) |
| 40 psig (2,8 bar) | 30 to 60 psig (2,1 to 4,1 bar) | 2600 (73,6) |
| 50 psig (3,4 bar) | 35 to 100 psig (2,4 to 6,9 bar) | 3300 (93,4) |

1. Based on inlet pressure 20 psig (1,4 bar) greater than outlet with 20% droop.
 2. Capacity based on 20 psig (1,4 bar) above setpoint and 20% droop.
 3. Metric conversion is based on 2516 BTU/ft³ of gas at 60°F (16°C).

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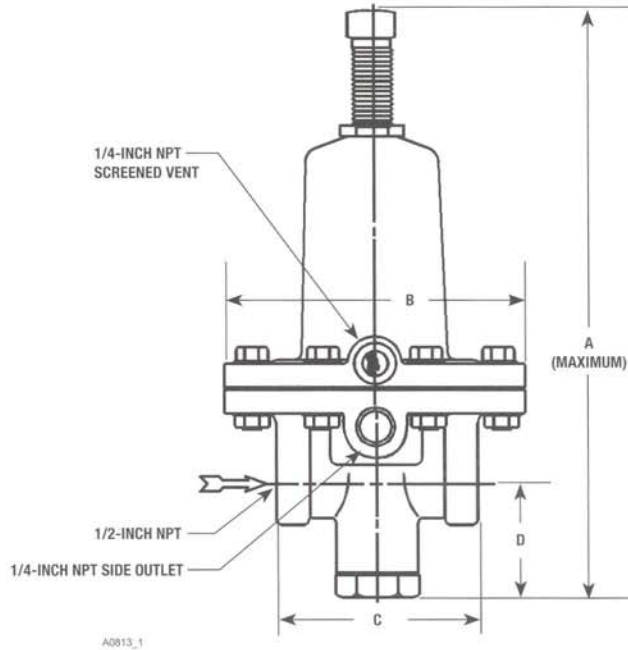


Figure 3. Dimensions

Table 4. Dimensions and Approximate Weight

| DIMENSIONS, INCHES (mm) | | | | APPROXIMATE WEIGHT, POUNDS (kg) |
|-------------------------|------------|-------------|-------------|------------------------------------|
| A | B | C | D | |
| 8.25 (209) | 4.12 (105) | 2.75 (69,9) | 1.56 (39,6) | 2.25 (1,02) |

Ordering Guide

| Ordering Information | | | | |
|----------------------|----------------------------------|--|--|---|
| TYPE NUMBER | DESCRIPTION | OUTLET PRESSURE SETTING, PSIG (bar) | OUTLET ADJUSTMENT RANGE, PSIG (bar) | INLET AND OUTLET CONNECTIONS, INCHES |
| 64-33 | Basic Regulator | 10 (0,69) | 3 to 15 (0,21 to 1,03) | 1/2 FNPT |
| 64-35 | | 20 (1,38) | 5 to 35 (0,35 to 2,41) | |
| 64-36 | | 40 (2,76) | 30 to 60 (2,07 to 4,14) | |
| 64-222 | | 50 (3,45) | 35 to 100 (2,41 to 6,90) | |
| 64SR-21 | With Internal Relief Valve | 10 (0,69) | 3 to 15 (0,21 to 1,03) | |
| 64SR-22 | | 15 (1,03) | 5 to 20 (0,35 to 1,38) | |
| 64SR-23 | | 20 (1,38) | 5 to 35 (0,35 to 2,41) | |
| 64KB-33 | With Special Diaphragm Protector | 10 (0,69) | 3 to 15 (0,21 to 1,03) | |
| 64KB-34 | | 15 (1,03) | 5 to 20 (0,35 to 1,38) | |
| 64KB-35 | | 20 (1,38) | 5 to 35 (0,35 to 2,41) | |
| 64KB-36 | | 40 (2,76) | 30 to 60 (2,07 to 4,14) | |
| 64KB-222 | | 50 (3,45) | 35 to 100 (2,41 to 6,90) | |

To order, refer to the Ordering Information table above and specify the type number that satisfies your requirement. Then, contact or visit your local LP-Gas Equipment Distributor for availability.