

U.L. Listed Beverage Regulators

Cylinder gas pressure (CO₂) regulators for Soft drink and Beer dispensing systems

Underwriters Laboratories, Inc. listed (file number SA1089)

The R81 regulator and C81 regulator configurations with integral relief valve and outlet check valves meet the requirements of paragraphs 4.5 and 4.6 of NSDA Pamphlet TD02, Installation and Operational Procedures for Pressurized Soft Drink Dispensing Systems, dated July, 1980.

The R82 regulator with integral relief valve meets the requirements of Proposed Section 9.7, Draught Beer Dispensing Equipment and Related Components (Seventh Draft dated October 17, 1980), of ANSI-ASME F2.1-1975, Food, Drug, and Beverage Equipment.

Technical data

R84

Fluid:

Carbon dioxide.

Maximum pressure:

3000 psig (207 bar)

Operating temperature:

0° to 140°F (-18° to 60°C)

Integral relief valve cracking pressure:

150 ± 5 psig (10.4 ± 0.33 bar)

R81

Fluid:

Carbon dioxide.

Maximum pressure:

3000 psig (207 bar)

Operating temperature:

0° to 140°F (-18° to 60°C)

Integral relief valve cracking pressure:

130 ± 4 psig (9.0 ± 0.28 bar)

R82

Fluid:

Carbon dioxide.

Maximum pressure:

3000 psig (207 bar)

Operating temperature:

0° to 140°F (-18° to 60°C)



R84

Ordering Information

Models listed have PTF threads, integral relief valve, and relieving diaphragm.

| Port | Model | Weight lb (kg) |
|------|--------------|----------------|
| 1/4" | R84-200-MNLA | 1.3 (0.59) |
| 1/4" | R81-200-LNKA | 1.3 (0.59) |
| 1/4" | R82-200-ENEA | 1.3 (0.59) |

Alternative Models

R81-200-LN★A

Outlet Pressure

| Adjustment Ranges † | Substitute |
|---------------------------------|------------|
| 1 to 25 psig (0.07 to 1.7 bar) | T |
| 2 to 50 psig (0.14 to 3.4 bar) | E |
| 5 to 100 psig (0.34 to 6.9 bar) | K |

† Outlet pressure can be adjusted to pressures in excess of, and less than, that specified. Do not use these units to control pressures outside of the specified range.

Maximum outlet pressure adjustment limit:

Factory set at 40 to 45 psig (2.8 to 3.1 bar)

Integral relief valve cracking pressure:

60 ± 4 psig (4.1 ± 0.28 bar)

Materials

R84

Body: Brass

Bonnet: Zinc

Valve cartridge: Teflon, brass, stainless steel

Diaphragm: Acetal and nitrile

Relief valve: Brass, polycarbonate, nitrile, aluminum

Seals: Nitrile

R81

Body: Brass

Bonnet: Zinc

Valve cartridge: Teflon, brass, stainless steel

Diaphragm: Acetal and nitrile

Relief valve: Brass, polycarbonate, nitrile, aluminum

Seals: Nitrile

R82

Body: Brass

Bonnet: Zinc

Valve cartridge: Teflon, brass, stainless steel

Diaphragm: Acetal and nitrile

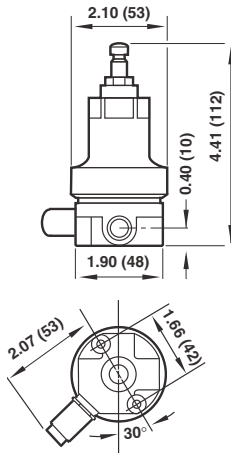
Relief valve: Brass, polycarbonate, nitrile, aluminum

Seals: Nitrile

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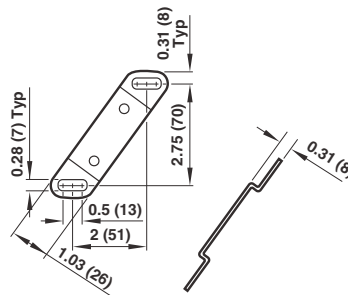
Cylinder gas pressure (CO2) regulators for Soft drink and Beer dispensing systems

R81 and R84 Regulator

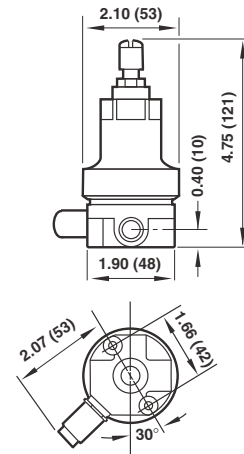


Mounting Holes (2 Places)
0.18" (4.6mm) dia. by 0.39 (10mm) deep.
Use 10-32 thread forming screws.

5095-51 Strap Type Bracket



R82 Regulator



Mounting Holes (2 Places)
0.18" (4.6 mm) dia. by 0.39" (10 mm) deep.
Use 10-32 thread forming screws.

R84 WARNING

For safety in systems using Norgren Model R84 regulators, the following procedures must be followed.

1. Pressure relief valves of sufficient capacity must always be used in the secondary (outlet) lines downstream of each pressure regulator, whether as an integral part of the regulator, as is the case with Norgren Model R84 Regulator, or separately installed elsewhere in the outlet lines. Do not remove or attempt to adjust, plug, block or otherwise defeat the purpose of the relief valve. Do not replace a relief valve with any but an identical model. The relief valve used on the R84 regulator is preset and marked **150 PSIG RELIEF VALVE**. Replace only with the same 150 psig relief valve, part number 5779-54. The end cap on the 5779-54 relief valve is color coded red for visual identification. Failure to provide a pressure relief valve of sufficient capacity to hold outlet pressure below the lowest working pressure rating of any piece of equipment installed in the outlet lines can result in equipment damage and/or personal injury.
2. A back flow check valve must always be installed at the regulator or at each manifold outlet in liquid dispensing applications to prevent reverse flow through the regulator and possible introduction of liquids and other contaminants into the regulator.
3. Regulators must not be used where temperature or pressure may exceed those specified in the **Technical data** paragraph.
4. The accuracy of the indication of pressure gauges can change, both during shipment (despite care in packaging) and during the service life. If a pressure gauge is to be used in conjunction with these products and if inaccurate indications may be hazardous to personnel or property, the gauge should be calibrated before initial installation and at regular intervals during use. For gauge standards refer to ANSI B40.1.
5. These regulators are not intended for use in life support systems, beer dispensing systems, with soft drink product (syrup) containers, or industrial cylinder gas systems.

R81 WARNING

Soft drink dispensing systems must be designed, installed, and operated in accordance with the guidelines set forth in NSDA pamphlet TD02, **Installation and Operational Procedures for Pressurized Soft Drink Dispensing Systems**, dated July, 1980 or subsequent revisions.

1. Pressure relief valves of sufficient capacity must always be used in the secondary (outlet) lines downstream of each pressure regulator, whether as an integral part of the regulator, as is the case with Norgren Model R81 Regulator, or separately installed elsewhere in the outlet lines. Do not remove or attempt to adjust, plug, block or otherwise defeat the purpose of the relief valve. Do not replace a relief valve with any but an identical model. The relief valve used on the R81 regulator is preset and marked **130 PSIG RELIEF VALVE**. Replace only with the same 130 psig relief valve, part number 5779-55. The end cap on the 5779-55 relief valve is color coded black for visual identification. Failure to provide a pressure relief valve of sufficient capacity to hold outlet pressure below the lowest working pressure rating of any piece of equipment installed in the outlet lines can result in equipment damage and/or personal injury.
2. A back flow check valve must always be installed at the regulator or at each manifold outlet in liquid dispensing applications to prevent reverse flow through the regulator and possible introduction of liquids and other contaminants into the regulator.
3. Regulators must not be used where temperature or pressure may exceed those specified in the **Technical data** paragraph.
4. The accuracy of the indication of pressure gauges can change, both during shipment (despite care in packaging) and during the service life. If a pressure gauge is to be used in conjunction with these products and if inaccurate indications may be hazardous to personnel or property, the gauge should be calibrated before initial installation and at regular intervals during use. For gauge standards refer to ANSI B40.1.
5. These regulators are not intended for use in life support systems, beer dispensing systems, soft drink carbonator systems, or industrial cylinder gas systems.

R82 WARNING

Beer dispensing systems must be designed, installed, and operated in accordance with the applicable guidelines such as the proposed Section 9.7, **Draught Beer Dispensing Equipment and Related Components** (Seventh Draft dated October 17, 1980), of ANSI-ASME F2.1-1975, Food, Drug and Beverage Equipment or subsequent revisions.

1. Pressure relief valves of sufficient capacity must always be used in the secondary (outlet) lines downstream of each pressure regulator, whether as an integral part of the regulator, as is the case with Norgren Model R82 Regulator, or separately installed elsewhere in the outlet lines. Do not remove or attempt to adjust, plug, block or otherwise defeat the purpose of the relief valve. Do not replace a relief valve with any but an identical model. The relief valve used on the R82 regulator is preset and marked **60 PSIG RELIEF VALVE**. Replace only with the same 60 psig relief valve, part number 5779-56. The end cap on the 5779-56 relief valve is color coded silver for visual identification. Failure to provide a pressure relief valve of sufficient capacity to hold outlet pressure below the lowest working pressure rating of any piece of equipment installed in the outlet lines can result in equipment damage and/or personal injury.
2. A back flow check valve must always be installed at the regulator or at each manifold outlet in liquid dispensing applications to prevent reverse flow through the regulator and possible introduction of liquids and other contaminants into the regulator.
3. Regulators must not be used where temperature or pressure may exceed those specified in the **Technical data** paragraph.
4. The accuracy of the indication of pressure gauges can change, both during shipment (despite care in packaging) and during the service life. If a pressure gauge is to be used in conjunction with these products and if inaccurate indications may be hazardous to personnel or property, the gauge should be calibrated before initial installation and at regular intervals during use. For gauge standards refer to ANSI B40.1.
5. These regulators are not intended for use in life support systems, soft drink carbonator systems, with soft drink product (syrup) containers, or industrial cylinder gas systems.