

## Relief Valve for Liquid or Vapor Service

**Type MR98H** – is a direct-operated relief valve for use on relief and backpressure applications involving large LPG pumping systems and vaporizers. Internal pressure registration eliminates the need for a control line. Body materials are available in Gray Cast Iron, Steel or Stainless Steel. It is available with Nitrile (NBR) gaskets in sizes from 1/4 in. to 2 in. / 6.35 to 50.8 mm. Relief pressure ranges from 15 to 200 psi / 1.03 to 13.8 bar. Temperature ratings are -40 to 180°F / -40 to 82°C for CI and SST and -20 to 180°F / -29 to 82°C for Steel. Available with: gauge port on inlet, gauge port on outlet and Fluorocarbon (FKM) elastomers.

**Type MR98HH** – Same features as above but relief pressure range is 150 to 375 psig / 10.3 to 25.9 bar.



TYPE MR98H

TYPE MR98HH

### Liquid Service Relief Valves

| TYPE      | BODY SIZE, IN. | RELIEF PRESSURE RANGE |              | RELIEF PRESSURE SETTING |      | PROPANE RELIEF CAPACITY GPM / l/min AT FOLLOWING PRESSURE BUILD-UP OVER RELIEF SETTING |       |                    |       |                   |       |                   |       |                   |       |
|-----------|----------------|-----------------------|--------------|-------------------------|------|--|-------|--------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
|           |                | psig                  | bar          | psig                    | bar  | 5 psig / 0.34 bar  |       | 10 psig / 0.69 bar |       | 20 psig / 1.4 bar |       | 30 psig / 2.1 bar |       | 50 psig / 3.4 bar |       |
|           |                |                       |              |                         |      | GPM  | l/min | GPM                | l/min | GPM               | l/min | GPM               | l/min | GPM               | l/min |
| MR98H-13  | 1/2 FNPT       | 25 to 75              | 1.7 to 5.2   | 50                      | 3.4  | 16.9   | 66.1  | 26.8               | 103.4 | 38.0              | 140.8 | 40.8              | 154.9 | 49.3              | 184.5 |
| MR98H-22  | 3/4 FNPT       | 70 to 140             | 4.8 to 9.7   | 100                     | 6.9  | 32.4   | 121.0 | 53.5               | 201.4 | 78.9              | 300.0 | 87.3              | 331.0 | 104.2             | 394.4 |
| MR98H-30  | 1 FNPT         | 70 to 140             | 4.8 to 9.7   | 100                     | 6.9  | 32.4   | 121.0 | 53.5               | 201.4 | 78.9              | 300.0 | 87.3              | 331.0 | 104.2             | 394.4 |
| MR98H-31  | 1 FNPT         | 130 to 200            | 9.0 to 13.8  | 175                     | 12.1 | 29.6   | 112.4 | 47.9               | 178.9 | 77.5              | 291.5 | 90.1              | 342.3 | 118.3             | 446.5 |
| MR98HH-19 | 1 FNPT         | 150 to 375            | 10.3 to 25.9 | 250                     | 17.2 | 27.6   | 104.4 | 37.7               | 142.3 | 61.7              | 233.8 | 83.4              | 315.5 | 113.0             | 426.8 |

## Vapor Relief Valves

**Type 1805** – relief valve is designed for installation between the First and Second-Stage regulators or in the downstream line from a high-pressure regulator used for a Final-Stage service where high line pressures are allowed. Available in 1 or 2 in. valve bodies with a temperature rating of -20 to 150°F / -29 to 66°C.

**Type 289H** – relief valve is designed for installation downstream of larger high-pressure or low-pressure regulators in most all relief applications. The larger diaphragm in this relief valve provides extremely sensitive operation, with a temperature rating of -20 to 150°F / -29 to 66°C.

**Types 1808 and 1808A** – pilot-operated relief valve is designed to protect large high-pressure regulators by offering extremely high relief capacities compared to the Type 289H. The Type 1808 has a temperature rating of -20 to 180°F / -29 to 82°C.



TYPE 1805

TYPE 289H

TYPE 1808

### Vapor Relief Valves

| TYPE     | BODY SIZE, IN. | RELIEF START-TO-DISCHARGE |         | SPRING RANGE |                | PRESSURE BUILDUP OVER SET PRESSURE |         | CAPACITY (AIR)    |                    |
|----------|----------------|---------------------------|---------|--------------|----------------|------------------------------------|---------|-------------------|--------------------|
|          |                | psig                      | bar     | psig         | bar            | psig                               | bar     | SCFH              | Nm³/h              |
| 1805-18P | 1 FNPT         | 15                        | 1.03    | 5 to 35      | 0.34 to 2.41   | 15                                 | 1.03    | 6160 at 30 psig   | 161 at 2.07 bar    |
| 1805-19P | 1 FNPT         | 40                        | 2.75    | 10 to 60     | 0.69 to 4.1    | 15                                 | 1.03    | 3120 at 55 psig   | 83.62 at 3.79 bar  |
| 1805-51P | 2 FNPT         | 15                        | 1.03    | 5 to 20      | 0.34 to 1.38   | 15                                 | 1.03    | 28,500 at 30 psig | 748 at 2.07 bar    |
| 1805-52P | 2 FNPT         | 40                        | 2.75    | 10 to 50     | 0.69 to 3.4    | 15                                 | 1.03    | 14245 at 55 psig  | 381.77 at 3.79 bar |
| 1808A-61 | 2 FNPT, Angle  | 20                        | 1.4     | 15 to 40     | 1.03 to 2.76   | 10                                 | 0.69    | 78,230 at 30 psig | 2053 at 2.07 bar   |
| 289H-42  | 1 FNPT         | 15                        | 1.03    | 4 to 15      | 0.28 to 1.03   | 15                                 | 1.03    | 33,880 at 30 psig | 889 at 2.07 bar    |
| 289H-2   | 2 FNPT         | 24 in. w.c.               | 60 mbar | 1/2 to 2-1/4 | 34 to 155 mbar | 1.13                               | 78 mbar | 15,400 at 2 psig  | 38 at 138 mbar     |

NOTE: Some regulators will require more than one relief valve. Consult your local Fisher™ LPG Distributor for proper relief valve sizing.