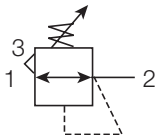
## PR354, PR364 Regulator – Miniature

PR364 PR354

### Symbol




- Stainless steel construction handles most corrosive environments
- Large diaphragm to valve area ratio for precise regulation and high flow capacity
- Meets NACE specifications MR-01-75/ISO 15156
- High flow: 1/4" – 5.75 $dm^3/s^{\S}$

### Options:

**PR364 G 02 C SS**

| Series | |
|---|---|
| Stainless steel | **PR354** |
| Standard knob | **PR364** |

| Port size | |
|---|---|
| BSPP | **G** |
| NPT | **-** |

| Port size | |
|---|---|
| 1/4" | **02** |

| Pressure range | |
|---|---|
| 0 - 1.7 bar | A |
| 0 - 4.1 bar | B |
| 0 - 8.5 bar | **C** |

| Options | |
|---|---|
| Relieving | **Blank** |
| Non-Relieving | K |

| Material | |
|---|---|
| Stainless steel | **SS** |

**Note:** Bold options are most popular

| Port size | Series | Description | Order code | Max bar | Height mm | Width mm | Depth mm |
|---|---|---|---|---|---|---|---|
| G1/4 | **PR364** | BSPP - Standard knob | **PR364G02CSS** | 20.7 | 78 | 40 | 40 |
| G1/4 | **PR364** | NPT - Standard knob | **PR364-02CSS** | 20.7 | 78 | 40 | 40 |
| G1/4 | **PR354** | BSPP - All metal | **PR354G02CSS** | 20.7 | 64 | 40 | 40 |
| G1/4 | **PR354** | NPT - All metal | **PR354-02CSS** | 20.7 | 64 | 40 | 40 |

§ $dm^3/s$ = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

**⚠ Warning**

**Product rupture can cause serious injury.**
**Do not connect regulator to bottled gas.**
**Do not exceed maximum primary pressure rating.**

## Specifications

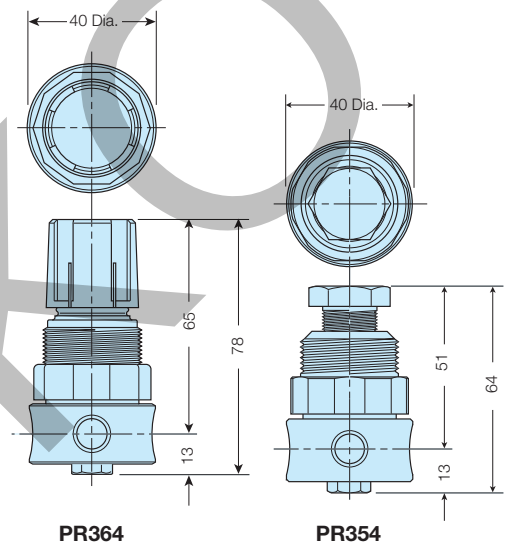
| | | |
|---|---|---|
| Gauge port | | G1/4 |
| Operation | | Flourocarbon diaphragm |
| Port threads | | G1/4 |
| Operating temperature | PR354 | -18°C to 82°C |
| | PR364 | -18°C to 66°C |
| Max supply pressure | PR354 | 0 to 20.7 bar |
| | PR364 | 0 to 20.7 bar |
| Weight | | 230 g |

**Note:** Air must be dry enough to avoid ice formation at temperatures below 2°C.

## Materials of Construction

| | |
|---|---|
| Adjustment mechanism / Springs | 316 Stainless steel |
| Adjustment knob (PR354) | 316 Stainless steel |
| Adjustment knob (PR364) | Polypropylene |
| Body | 316 Stainless steel |
| Bonnet (PR354) | 316 Stainless steel |
| Bonnet (PR364) | Acetal |
| Bottom plug | 316 Stainless steel |
| Poppet | 316 Stainless steel |
| Seals | Flourocarbon |

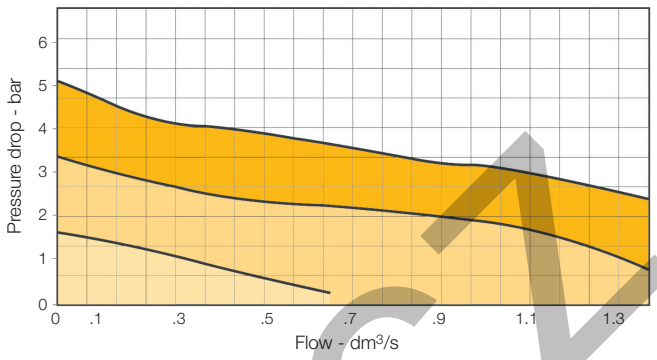
## Dimensions (mm)




**Note:** 32mm dia. hole required for panel mounting.

## Flow Charts

**Flow Characteristics - 1/4 Inch Ports**
**6.9 bar Primary Pressure**

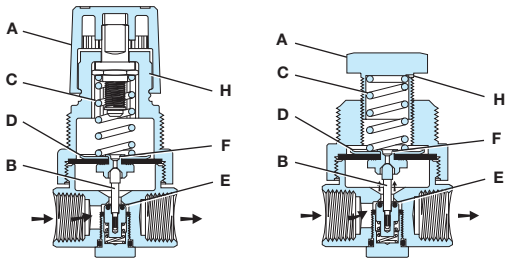



**CAUTION:**
**REGULATOR PRESSURE ADJUSTMENT –**
The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

## Accessories

| | | |
|---|---|---|
| R354 Bonnet Kit | 0.3 micron | **CKR354YSS** |
| R364 Bonnet Kit | Knob included | **CKR364YSS** |
| Gauge - 0 to 10 bar | BSPP | **M1/4G40S-10** |
| | NPT | **K4520N14160SS** |
| Panel Mount Bracket (Stainless) | | **161X57-SS** |
| Panel Mount Nut | Stainless | **R05X51SS** |
| | Plastic | **R05X51-P** |
| Pipe Nipple | 1/4" NPT 316 Stainless Steel | **616Y28-SS** |
| | 1/4" BSPT 316 Stainless Steel | **AC-2SS** |
| Service Kit | Relieving | **RKR364YSS** |
| | Non-Relieving | **RKR364KYSS** |

## Operation

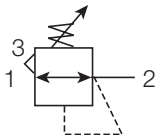



With the adjusting knob (A) turned fully counter-clockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly (B) is closed. Turning the adjusting knob clockwise applies a load to control spring (C). This load causes the diaphragm (D) and the valve poppet assembly (B) to move downward allowing flow across the seat area (E) created between the poppet assembly and the seat. Pressure in the downstream line is sensed below the diaphragm (D) and offsets the load of spring (C). As downstream pressure rises, poppet assembly (B) and diaphragm (D) move upward until the area (E) is closed and the load of the spring (C) and pressure under diaphragm (D) are in balance. A reduced outlet pressure has now been obtained, depending on spring load. Creating a demand downstream, such as opening a valve, results in a reduced pressure under the diaphragm (D). The load of control spring (C) now causes the poppet assembly to move downward opening seat area (E) allowing air to flow to meet the downstream demand. The flow of downstream air is metered by the amount of opening (E). Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm (D) to move upward against control spring (C), open vent hole (F), and vent the excess pressure to atmosphere through the hole in the bonnet (H). (This occurs in the relieving type regulator only.)

## PR10, PR11 Regulator – Standard

PR11 PR10

### Symbol




- Stainless steel construction handles most corrosive environments
- Large daphragm to valve area ratio for precise regulation and high flow capacity
- Meets NACE specifications MR-01-75/ISO 15156
- Low temperature version available
- High flow: 1/2" – 37.75 $dm^3/s$§

### Options:

| PR10 | G | 04 | C | | SS |
|---|---|---|---|---|---|

| Series | |
|---|---|
| Standard knob | **PR10** |
| Stainless steel tee handle | **PR11** |

| Port size | |
|---|---|
| BSPP | **G** |
| NPT | **-** |

| Port size | |
|---|---|
| 1/2" | **04** |

| Pressure range | |
|---|---|
| 0 - 4.1 bar | B |
| 0 - 8.5 bar | **C** |
| 0 - 17 bar | D |

| Options | |
|---|---|
| Relieving | **Blank** |
| Non-Relieving | K |
| Low temp. | L |

| Material | |
|---|---|
| Stainless steel | **SS** |

**Note:** Bold options are most popular

| Port size | Series | Description | Order code | Max bar | Height mm | Width mm | Depth mm |
|---|---|---|---|---|---|---|---|
| G1/2 | **PR10** | BSPP - Standard knob | **PR10G04CSS** | 20.7 | 126 | 62 | 60 |
| G1/2 | **PR10** | NPT - Standard knob | **PR10-04CSS** | 20.7 | 126 | 62 | 60 |
| G1/2 | **PR11** | BSPP - Stainless steel tee handle | **PR11G04CSS** | 20.7 | 154 | 62 | 60 |
| G1/2 | **PR11** | NPT - Stainless steel tee handle | **PR11-04CSS** | 20.7 | 154 | 62 | 60 |

§ $dm^3/s$ = 7 bar inlet pressure with 5.5 bar set pressure and 1 bar pressure drop.

**⚠ Warning**

**Product rupture can cause serious injury.**
**Do not connect regulator to bottled gas.**
**Do not exceed maximum primary pressure rating.**

## Specifications

| | | |
|---|---|---|
| Gauge port | | G1/4 |
| Operation | | Flourocarbon diaphragm |
| Port threads | | G1/2 |
| Operating temperature | PR10 | -18°C to 66°C |
| | PR11 | -18°C to 82°C |
| Option "L" minimum operating temperature | | -40°C |
| Max supply pressure | PR10 | 0 to 20.7 bar |
| | PR11 | 0 to 20.7 bar |
| Weight | | 810 g |

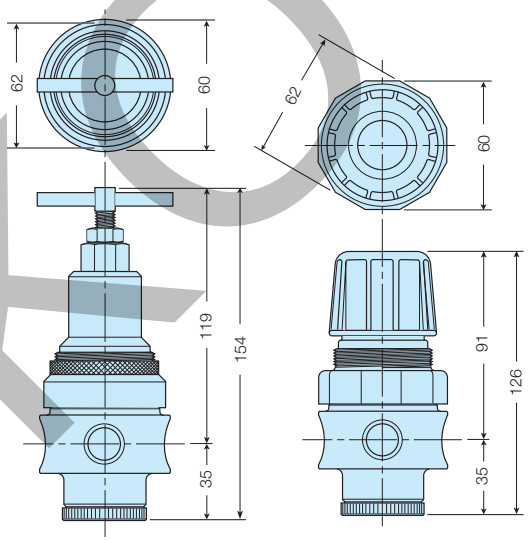
**Note:** Air must be dry enough to avoid ice formation at temperatures below 2°C.

**Note:** "Low Temperature" option is intended for applications where the ambient temperature may be down to -40° C/F. Air supply must be free of moisture to prevent ice formation and malfunction of units. These units contain EPDM seals. Make sure any oils in the airstream are compatible.

## Materials of Construction

| | |
|---|---|
| Adjustment mechanism / Springs | 316 Stainless steel |
| Body | 316 Stainless steel |
| Bonnet / Tee handle (PR11) | 316 Stainless steel |
| Bonnet / Knob (PR10) | Acetal |
| Bottom plug | 316 Stainless steel |
| Poppet | 316 Stainless steel |
| Seals | Flourocarbon |

## Dimensions (mm)

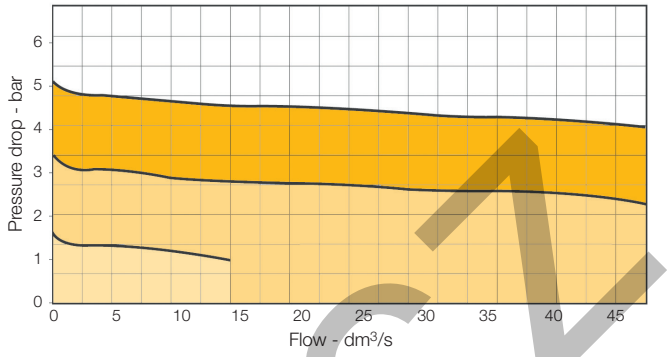



PR11 PR10

**Note:** 44mm dia. hole required for panel mounting.

## Flow Charts

**Flow Characteristics - 1/2 Inch Ports**
**6.9 bar Primary Pressure**

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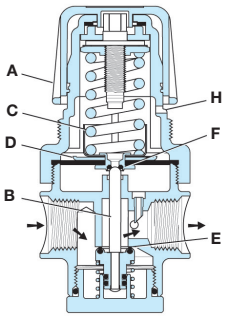
## Accessories

| | | |
|---|---|---|
| R10 Bonnet Kit | Knob included | **CKR10YSS** |
| R11 Bonnet Kit | | **CKR11YSS** |
| Gauge - 0 to 10 bar | BSPP | **M1/4G40S-10** |
| | NPT | **K4520N14160SS** |
| Panel Mount Bracket (Stainless) | | **R10Y57-SS** |
| Panel Mount Nut | Stainless | **R10X51SS** |
| | Plastic | **R10X51-P** |
| Pipe Nipple | 1/2" NPT 316 Stainless Steel | **616A28-SS** |
| | 1/2" BSPT 316 Stainless Steel | **AC-4SS** |
| Service Kit | Relieving | **RKR10YSS** |
| | Non-Relieving | **RKR10KYSS** |

## Operation

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Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm (D) to move upward against control spring (C), open vent hole (F), and vent the excess pressure to atmosphere through the hole in the bonnet (H). (This occurs in the relieving type regulator only.)