

# R-3710 Series Restrictors

## Description

The R-3710 Series Restrictors limit pressure and flow direction in pneumatic operating systems.

Refer to *R-3710 Series Restrictors Product Bulletin (LIT-7171610)* for important product information.

## Features

- available with fixed and variable sized orifices
- fixed restrictors come in two orifice sizes, and are color coded for easy identification.
- red for 0.005 in. (0.13 mm)
- aqua for 0.007 in. (0.18 mm)
- available in a variety of styles



R-3710-3005 Restrictor



R-3710-3105 Restrictor



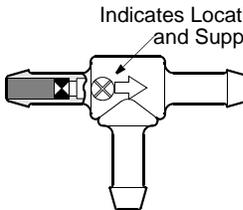
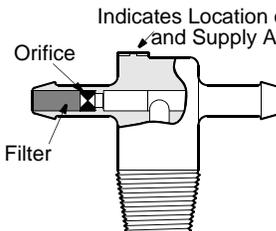
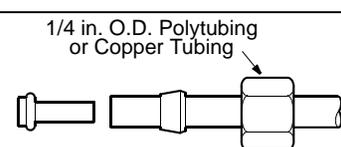
R-3710-2005 Restrictor



R-3710-1005 Restrictor

## Selection Charts

### R-3710 Series Restrictors (Part 1 of 2)

| Code Number  | Description  |
|--|--|
| <b>T-Fitting With Barbs</b>                              |  |
| R-3710-3005<br>R-3710-3007<br>R-3710-3205<br>R-3710-3207 | Inline T-coupling with barbed fittings for 1/4 in. O.D. polytubing.   |
| <b>T-Fitting with Barbs and 1/8 in. NPT</b>              |  |
| R-3710-3105<br>R-3710-3107                               | T-fitting with barbs for 1/4 in. O.D. polytubing and 1/8 in. NPT for screwing directly into actuator or controller.                       |
| <b>Straight Coupling</b>                                 |  |
| R-3710-2005<br>R-3710-2007                               | Straight coupling inline, with barbed fittings for 1/4 in. O.D. polytubing.   |
| <b>Inserted Restrictor</b>                               |  |
| R-3710-1005<br>R-3710-1007                               | Restrictor for inserting 1/4 in. O.D. polyethylene or copper tubing. Used with compression fittings, either inline or at the controller.  |

### R-3710 Color/Size Information (Part 1 of 2)

| Code Number | Color / Size  |
|-------------|---|
| R-3710-3005 | Red 0.005 in. Orifice<br>1/4 in. x 1/4 in. x 1/4 in.      |
| R-3710-3007 | Aqua 0.007 in. Orifice<br>1/4 in. x 1/4 in. x 1/4 in.     |
| R-3710-3205 | Red 0.005 in. Orifice<br>1/4 in. x 5/32 in. x 5/32 in.    |
| R-3710-3207 | Aqua 0.007 in. Orifice<br>1/4 in. x 5/32 in. x 5/32 in.   |
| R-3710-3105 | Red 0.005 in. Orifice<br>1/4 in. x 1/4 in. x 1/8 in. NPT  |
| R-3710-3107 | Aqua 0.007 in. Orifice<br>1/4 in. x 1/4 in. x 1/8 in. NPT |
| R-3710-2005 | Red 0.005 in. Orifice<br>1/4 in. x 1/4 in.                |
| R-3710-2007 | Aqua 0.007 in. Orifice<br>1/4 in. x 1/4 in.               |
| R-3710-1005 | Red 0.005 in. Orifice                                     |
| R-3710-1007 | Aqua 0.007 in. Orifice                                    |

## Restrictors (Continued)

### R-3710 Series Restrictors (Part 2 of 2)

| Code Number              | Description   |
|--------------------------|---|
| <b>Inline Adjustable</b> |   |
| <b>R-3710-2010</b>       | <p>Inline adjustable restrictor, pin valve type. Test gauge plugs are available on high and low side of restrictor.</p> <p>R-3710-2010 Adjustable Pin Valve With Two 3/4 in. (19mm) Lengths of 5/32 in. Tubing and Two 1/4 x 5/32 in. Couplings.</p> <p>1 in. (25mm) Length of 1/4 in. Tubing (Field Furnished)</p> <p>F-700-73 1/4 x 1/4 x 1/4 in. Barbed Tee (Field Furnished)</p> <p>F-1000-361 Sealing Cap Test Point (Field Furnished)</p> |

### R-3710 Color/Size Information (Part 2 of 2)

| Code Number | Color / Size                              |
|-------------|---|
| R-3710-2010 | 5/32 in. Tube Connections for Poly tubing |

### Repair Information

If the R-3710 Series Restrictor fails to operate within its specifications, replace the unit. For a replacement restrictor, contact the nearest Johnson Controls® representative.

## Technical Specifications

| R-3710 Series Restrictors              |   |   |
|--|---|---|
| <b>Material</b>                        | R-3710-3005, 3007, -3205, -3207, -3105, -3107, -2005, -2007               | Thermoplastic   |
|  | R-3710-1005, -1007  | Elastomeric O-Ring, Zinc Plated Compression Nut, (Identifies Restrictor location) and Thermoplastic Ferrule |
|  | R-3710-2010   | Brass   |
| <b>Maximum Pressure</b>                | R-3710-3005, 3007, -3205, -3207, -3105, -3107, -2005, -2007, -1005, -1007 | 25 psig (175 kPa)   |
|  | R-3710-2010   | 100 psig (700 kPa)  |
| <b>Maximum Temperature</b>             |   | 180°F (82°C)  |
| <b>Output Flow Capacity at 20 psig</b> | R-3710-3005, -3205, -3105, -2005, -1005                                   | 25 SCIM (6.8 mLs)   |
|  | R-3710-3007, -3207, -3107, -2007, -1007                                   | 45 SCIM (12.3 mLs)  |
|  | R-3710-2010   | Adjustable  |