

## Fuelling products

# Air set and spring set by-pass regulators

## F354, F355, F387, F390

The F390 shown at right is representative of the F387



The smart bypass valve F354 shown at left is representative of the F355

### F390 (3-inch) and F387 (4-inch) air set by-pass regulators

The Meggitt by-pass regulating valves are normally mounted in pump bypass return lines. They are usually installed as secondary pressure controls. However, where maximum low flow stability is required, they may be utilized as primary pressure controls when used in conjunction with an inline air set demand regulator similar to the Meggitt 4-inch model F370. The air set demand regulator valve will provide positive required deadman closure and surge control features not contained in the by-pass regulator.

The by-pass regulators will maintain a constant pressure at a downstream sensing point, such as a venturi, as a function of the supplied reference pressure. An optional feature allows the valve to also control maximum inlet pressure providing pump outlet pressure protection. Normally these units are capable of acting as secondary controls to larger sized primary or deadman controls. It is our opinion that the by-pass valve should normally be used as the primary control.

### F354 (3-inch) and F355 (4-inch) spring set by-pass regulators

The Meggitt F354 and F355 spring set by-pass regulators operate in a similar manner to the F390/F387; however, they can be operated with AC or DC solenoids. They may also be operated by air, but do not require a set regulated air pressure to acquire a specified fuel pressure. They may also stand alone without the use of deadman control. When the spring set valve is used with air deadman control, the air to fuel interface is eliminated.

### Key Features

- All 3 inch valves use the same body and piston design
- All 4 inch valves use the same body and piston design
- The F354/F355 valves do not require a specified amount of air pressure - no air regulations required
- F387 or F390 can be field converted to an F355 or F354 without removing main body from the line

### Operating characteristics

- Working pressure - 200 PSI
- Reference pressure - either air or fuel - 20-30 PSI higher than desired regulation
- Pump relief pressure (suffix E) - 10-125 PSI
- Peak surge pressure - 275 PSI

#### SPECIAL NOTES:

- For proper operation - sense line must be 0.375 inch I.D. minimum.
- Inlet piping must be straight for 15-inches and of same I.D. as valve.
- All units are aluminum but can be manufactured in ductile iron on special order.

## Meggitt Control Systems

**Our product competencies & services:**  
Aerospace valves | Thermal management solutions | Environmental control systems | Electro-mechanical products  
Ground fuelling products | Energy products | Aftermarket services

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smart engineering for  
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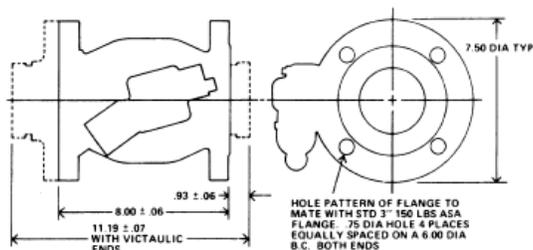
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# Air set and spring set by-pass regulators

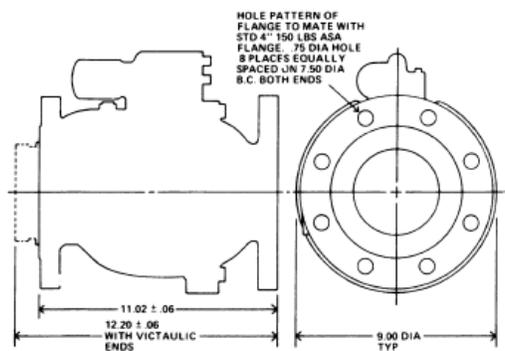
## F354, F355, F387, F390

### Key Dimensions

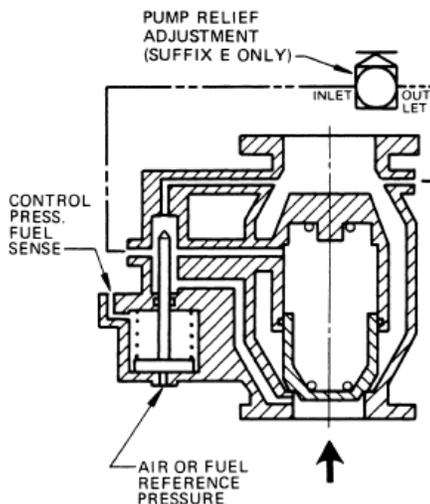
#### F390 and F354 (3 Inch) Dimensions



#### F387 and F355 (4 Inch) Dimensions



#### Functional Schematic



### Contact

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