



## INTRODUCTION

The SERIES D53 regulators provide accurate pressure control in a variety of applications: natural gas systems, fuel gas supply to industrial boilers, furnaces and mixers; and commercial or industrial business such as steel mills, asphalt plants and shopping centers.

This Regulator is used with double stage pilot pressure loading. The superior performance of this regulator is due to the amplifying effect of the pilot and the two-path control system. Changes in outlet pressure act quickly on the actuator diaphragm to provide fast response to changes. The pilot amplifies system changes, positioning the main valve for precise control.

These regulators can be provided with built-in Slam Shut Off device having over and under pressure shut-off. These regulators have Fail-Open and Fail-Close configuration.

# GAS PRESSURE REGULATOR

## SERIES D53

### KEY FEATURES

- **Tight Shut Off Capability** Special trim design eliminates wear and erosion of seating, providing excellent tight shut off capability over long working life.
- **Active Monitor Configuration Suitability** : This model is suitable for use as Active - Monitor Configuration.
- **Double Stage Pilot control** : Because of double stage pilot design, these regulators can handle high variations in inlet pressure without affecting the accuracy of outlet controlled pressure.
- **Easy to Maintain** : Sturdy and compact design with minimum number of moving parts. Actuator internals, Valve disc & trim parts can be replaced without removing the regulator from pipe line.
- **Local Position Indicator** : Position indicator is built in feature for indicating trim movement. Optionally position transmitter can be mounted for position feedback at remote location.
- **Built in Slam Shut Off Option (D53/S) available** : Built-in Slam Shut Off (with OPSO & UPSO) can be provided as an optional feature. SSV can be provided with local position indicators & Limit switches for remote feedback.

### TECHNICAL SPECIFICATIONS

- **BODY SIZE & CONNECTIONS** Flanged End: 1", 2", 3", 4", 6", 8", 10" & 12" ANSI B16.5 Class 150#, 300# & 600# (Higher sizes & ratings on request)
- **Accuracy Class AC** : Up to 1.0 (according to EN-334)
- **Lock-up pressure zone class SZ**: Upto 2.5
- **Maximum Inlet Pressure:**  
20 Barg for Flanged ANSI B16.5 150#  
50 Barg for Flanged ANSI B16.5 300#  
100 Barg for Flanged ANSI B16.5 600#
- **Temperature Capabilities** : -20°C to 60°C (extended temperature ranges available on request)
- **Pressure Setting Adjustment** : May be adjusted throughout a spring range by turning the adjusting screw of pilot.
- **Pressure Registration** : External 3/8" NPTF

#### MATERIAL OF CONSTRUCTION

- **Body\***: A216 Gr. WCB (Standard 150#), A352 Gr. LCB (Standard 300# & 600#), A351 CF8, A351 CF8M

#### Diaphragm Casing\*:

Valve Size	Material
1" & 2"	A350 Gr. LF2
3", 4", 6", 8", 10" & 12"	A216 Gr. WCB A352 Gr. LCB A352 Gr. LCC A351 Gr. CF8 A351 Gr. CF8M

- **Internal Trim Parts\***: A479 SS316, A479 Gr. Ss304, A479 SS316L, A479 SS304L, Copper, Brass
  - **Disc & Diaphragm\***: Nitrile (Standard) & Others on request
- \* (NACE & other special material available on request)

### TYPICAL INSTALLATION

