CAT. No. KS-572E

FUJIKURA COMPOSITES

GENERAL GUIDE

FUJIKURA'S PRECISION PNEUMATIC CONTROL PRODUCTS

FUJIKURA COMPOSITES

Fujikura BF Diaphragm Cylinder is a Unique Air Cylinder for precision control that eliminates the weak points of having Leakage and Friction unavoidable in usual Air Cylinders.

UNRIVALED FEATURES IN COMMON : All attributable to the Rolling Action of BF Diaphragms.

- **Very Low Friction** : Responsive to minute pressure variations.
  : Virtually no hysteresis-loss in movement.
  : Low Start-up pressure ,as low as 0.01MPa(FC,SC) , 0.02MPa(PC,TC)
  : Smooth "Non-jarring" action.
  : Ready to start even after long interval.
- **Lubrication-free** : No lubricator required.

Series AC

Model ACS Single Action
Model ACD Double Action

< Air Bearing Cylinder >

- Air bearing is adopted for rod guide part.
- Since the rod and the guide are not in contact with each other, there is no frictional resistance and super precise control is possible.
  Also, there is no wear and dust generation.

Series JC

Model JCS Single Action (push)
Model JCD Double Action

< Resin Packing Cylinder >

- Fluoropolymer is adopted as the seal part material.
- Long stroke 300 mm[11.81 in.], heat-resistant 200 C°[392 °F] specifications are also available.

Series FC

Model FCS Single Action (push)
Model FCD Double Action

< Fujikura BF Diaphragm Cylinder >

- Designed over a wide range of sizes from 10 to 200mm.
- Provided with a variety of mounts.

Series SC

Model SCS Single Action (push)
Model SCD Double Action

< Fujikura BF Diaphragm Cylinder >

- Absolute minimum of friction.
- Extremely sensitive response to pressure variations.
- Very low start-up pressure.

Series PC

Model PCS Single Action (push)
Model PCD Double Action

< Fujikura BF Diaphragm Cylinder >

- Extremely little leakage.
- Sensor switch attached on any of 4 faces. (Option)
- Easy assembling and disassembling.

Series TC

Model TS Single Action (push)

< Fujikura Diaphragm Cylinder >

- Thin Space-saving type of Diaphragm Cylinders facilitate high precision control of pressure force.
- Extremely little leakage Prevents atmospheric particle contamination.

Series
RS SUPER PRECISION AIR REGULATORS
Series
RR SUPER PRECISION AIR RELAYS

Servo-balanced pressure control system comprising Rolling diaphragms and Measuring capsule provides exceptionally precise and stable pressure control with constant bleed feature.

Series RR offer precision 1:1 pressure relay control externally pilot operated with ± bias adjustment capability.

Ultra Accurate and Stable Pressure Regulation
- Sensitivity : Within 0.1% F.S.
- Repeatability: Within ± 0.1% F.S.

Extremely Excellent Characteristics in Relief-, Pressure-, and Flow-sensitivities
- Particularly, minimum relief pressure (relief sensitivity) as low as 0.03kPa finds best applications in Tension controls and Air balancers, etc.

Excellent Start-Up Stability
- No readjustment required even after long down-time.

Pressure Remote Control (Series RR)
- Advisably used for high precision remote control of pressure.

※ **RS-KA** For Clean room

Series
RP PRECISION AIR REGULATORS

Direct Acting Type, Available with Relief and Non-Relief Models. Designed to give stable and accurate control in high flow applications.

Accurate Pressure Regulation
- Sensitivity :Within 0.3 to1.0% F.S.
  Repeatability : Within ± 0.5% F.S.

Superior Supply Pressure Characteristic
- Output pressure variation to changes in supply pressure : Within 0.5kPa.

Excellent Non-Bleed Pressure Regulation (Non-Relief Model)
- Generates a Zero-based precision output pressure unmatched by any other direct acting type of regulators.

Free from Dust Trouble
- Incorporated Screen Filter assures long trouble-free operation.

Series
RT PRECISION ELECTRO - PNEUMATIC TRANSDUCERS

Highly Accurate Pressure Regulation
- Linearity : Within 1.0 to 1.5% F.S.
- Hysteresis Loss : Within 1.0% F.S.
- Repeatability for Intermittent Load : Within 0.5% F.S.

Excellent Supply Pressure Sensitivity
- Output variation to changes in supply pressure : Within 0.5% F.S.

Series
RV PRECISION VACUUM REGULATORS

Accurate vacuum Control
- Sensitivity : Within 0.13kPa
- Repeatability : Within ±0.13kPa

Superior Source Vacuum Sensitivity
- Vacuum pressure variation to changes in source vacuum pressure: Within 1.3kPa

Large Flow Capacity
- Flow capacity up to 270 N ℓ /min(RV), 200 N ℓ /min(RV・S) allows wide uses in high flow applications.

Good Responsibility
- Quickly responsive to minute changes in secondary vacuum pressure.

Series
RA RB MINIATURE AIR REGULATORS

Compact and Light Weight
- Weight : 0.13kg

Excellent Pressure and Flow Characteristics

Accurate Pressure Regulation
(Relief type)
- Repeatability : ±0.5 ~ ±1.0% F.S.

Versatile Mounting
- Pipe, Panel or Manifold mounted.

Push-Lock Type Knob

Series
RG2 VERY SMALL RESIN AIR REGULATORS

Compact and Light Weight
- Weight : 0.033kg
- The best installation in saved space

Excellent pressure characteristics

Soft and Elegant Air Control presented by Fujikura's Precision Pneumatic Control Products:

Best suited to precision control applications such as:

(1) **Tension Control** : Super Cylinder (SCS) combined with Precision Regulators and Transducer (RR・HR,RP&RT). Printing machine, Paper Processing machine, Plastic film Processing machine, Textile machine, etc.
RR・HR:Super Precision Air Relay of High Relieving Flow type.

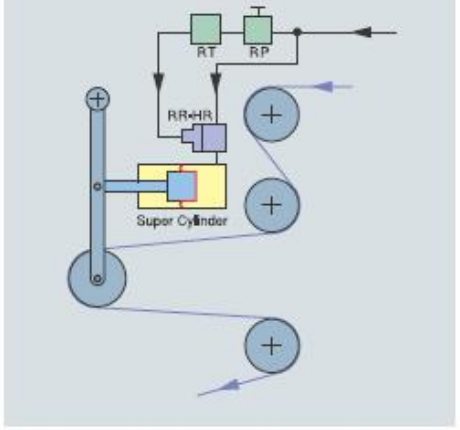
(2) **Push-down Pressure Control** : Standard Cylinder (FCD) combined with Precision Regulators and Transducer (RS,RR,RP&RT). Grinding machine, Abrasion Testing machine, Soil-Texture Testing machine, Cutter, etc.

(3) **Volume Booster** : Super Precision Air Relay (RR). Valve control of instrumented equipment, etc.

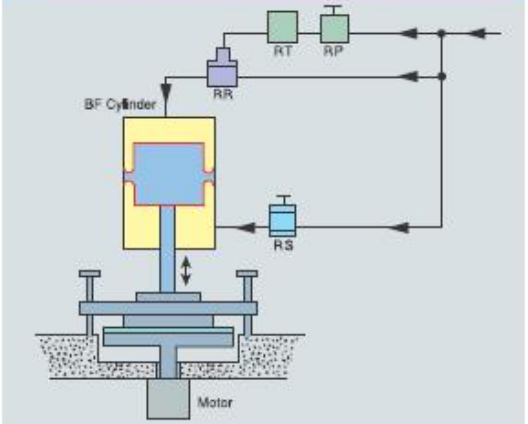
(4) **Simultaneous Different Settings of Secondary Pressure by Remote Control** : Super Precision Regulator and Relay (RS & RR).

(5) **Other Applications best suited** : Air Balancer, Spot welding machine (for controlling output force), Robot (for controlling handling force), Clean room equipment, Air micrometer, Leak Tester, Dispensing machine, etc.

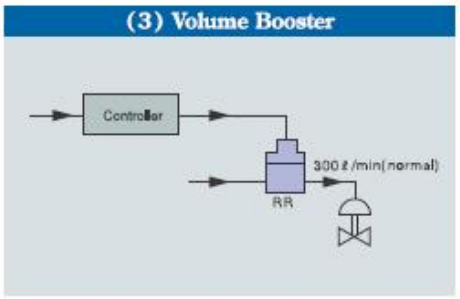
(1) Tension Control



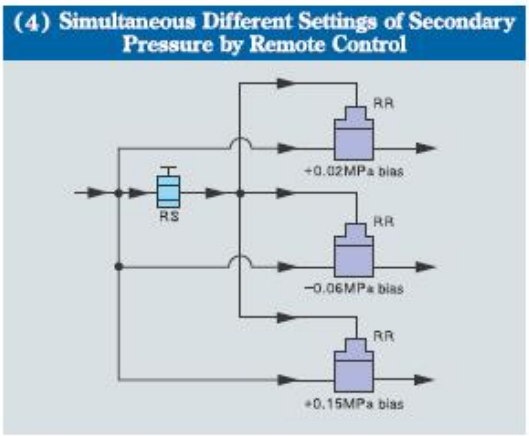
(2) Push-down Pressure Control [Grinding machine]



(3) Volume Booster



(4) Simultaneous Different Settings of Secondary Pressure by Remote Control



FUJIKURA COMPOSITES

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