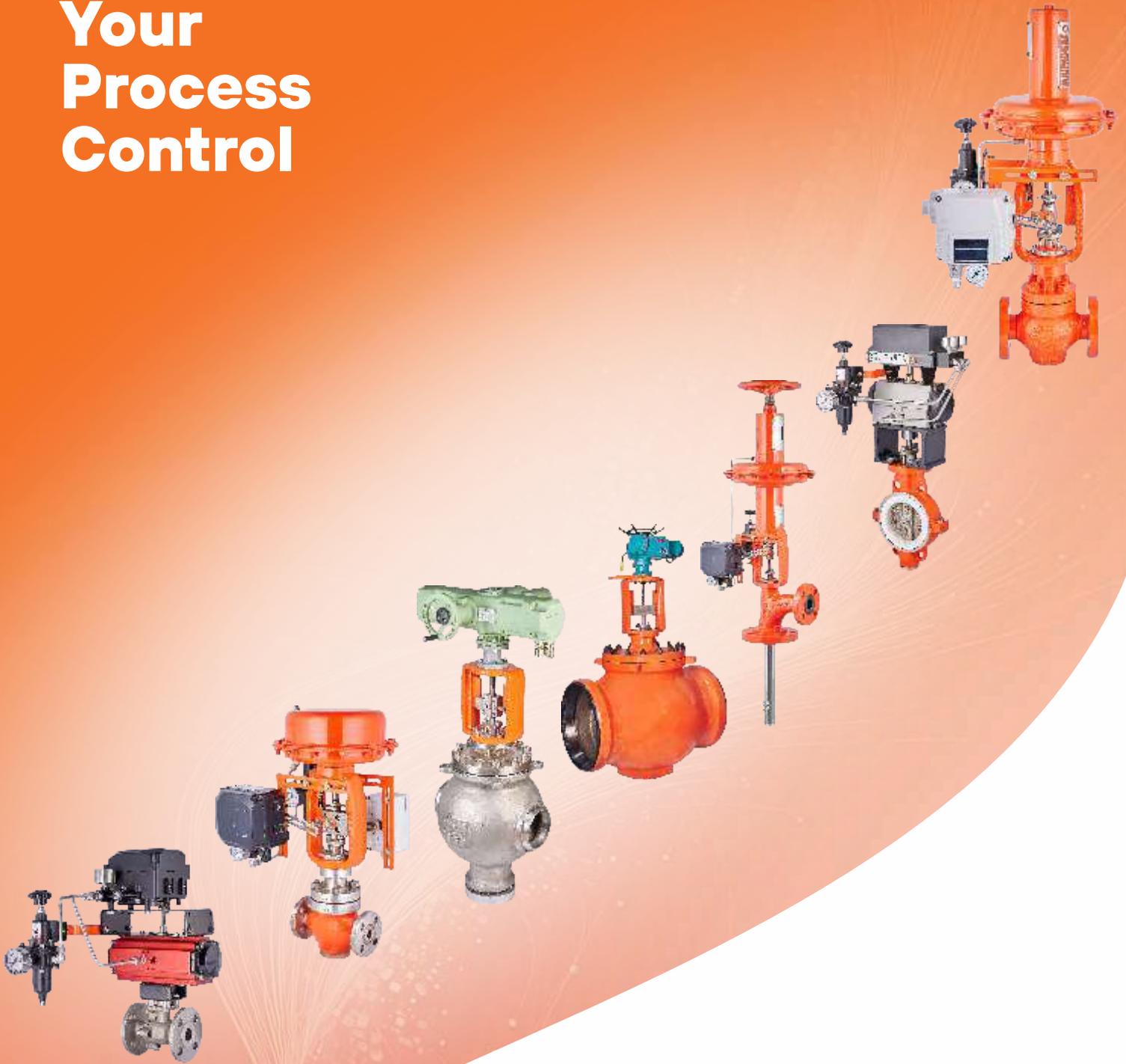


# Empowering Your Process Control



**RK CONTROL  
INSTRUMENTS**

Mastering Flow Since 1969

An ISO 9001 Certified Company



## Our Soch

### Your Growth

Mastering flow since 1969.

we seek to facilitate harmonious flow by creating an ecosystem of holistic support needed to strengthen your control processes

## Spiritual Foundation



**Respect for All**



**Work is Worship**



**Be true to Yourself**





### **The Company**

R.K. Control Instruments Pvt. Ltd. is an Indian pioneering company, established in 1969, manufacturing control valves at Thane (near Mumbai). RKCIPPL entered into technical collaboration with Brown Boveri Kent, Intron Valves, U.K. in 1982, absorbing the technology during 10 years of its collaboration. The company provides applications support, product advice and full technical back-up on all aspects of control valves technology, across segments & services. RKCIPPL has capabilities for supplying customised valves for critical applications, which have gained the company an enviable reputation for being a Control Valve Specialist.

We have Substantial export business pertaining to both Control Valves & Accessories to countries in Europe, USA & Middle East, besides local sales catering to Power, Nuclear, Sugar, Fertilizers, Oil and Gas, Chemical, Steel, FMCG sectors, etc.

### **Design Capability & Quality Standards**

R.K. Control has in-house capability & expertise to design, engineer, manufacture Speciality Valves for Critical application besides our standard range of Valves, Accessories & Actuators. We use Best in Class software for 3D Modelling, Simulation & Analysis (FEA & CFD). Our Designs are based on standards viz; ANSI, ASME, etc. We are ISO 9001 certified for Quality Management System.

### **Expansion & Global Reach**

In our continued quest for technological growth and market expansion, RKCIPPL is involved in the production of Nuclear Valves for India and Russia, adhering to rigorous ASME and Russian standards.

The second manufacturing unit at Rabale, Navi Mumbai caters to the Nuclear and special projects Control Valves. Our Factory is approved by Rosatom Register (Russian Nuclear) and NDK (Turkey) for Turkish Nuclear Plants.

With this advanced unit, we are proud to export high-quality valves for Russian market, reinforcing our commitment to engineering excellence and global compliance.



### **Application Team**

One of the best trained application team with immense experience behind it, sizes the valves with its latest in-house developed software-OPTISIZE. As the name suggest, this software optimises the valve, giving best technical & value added sizing solution. This integrated software combines Enquiry, Quotation, Work order tracking, which gives us a quick trackability, taking customer service to a benchmark level.



## Single Seated Globe Control Valve (Series 10)

Superior Performance in liquid and Gaseous services with low cost of ownership. Rugged construction proven over the years.

### Features

- Use of Contoured Plug Design for low pressures and pressure drops
- Use HF (High Friction) family of single / multistage cage guided trims to prevent onset of cavitation in liquid services and attenuate noise in Gas applications
- High Flow capacity and High Gain
- High Rangeability
- Pilot Operated Design for Leakage Class V (Metal-Metal Seating) at elevated temperatures
- Special metallurgy available on request
- Special Actuators with Multi spring / Electrical Actuators available
- Extremely low flow trims available
- Jacketed valves: Jacket on the valves ensure consistent heating or cooling of process media to prevent crystallization or seizing of flow media

### Specifications:

Valve Type: Linear Single Seated Globe

Size: ½" to 24" (Larger Sizes available on request)

Rating: ASME Class 150-2500

Intermediate ratings up to ASME Class 4500 can be provided on request

Materials: Carbon Steel, Stainless Steel, Special Alloys



### Applications

The industry choice for reliable, tough globe valve. Handles a wide range of control applications for flow, pressure and temperatures, including corrosive fluids steam, water, gases, multi phase, high temperatures, erosion and high pressure drop applications.

Finds applications in Nuclear, Oil and Gas, Fertilizers, Steel, Power plant, Chemicals, Pharmaceutical and Food industries.

For more information, refer to Catalogue Series 10

## Double Seated Globe Control Valve (Series 20)

Superior Performance in liquid services with large flow capacity in comparison to Single Seated Valves  
Rugged construction proven over the years.

### Features

- High flow capacity
- Heavy Top and Bottom Guiding
- Minimum differential plug areas to reduce actuator thrust requirements
- Optional Anti Cavitation / Low Noise Trim options available
- Special Actuators with Multi spring / Electrical Actuators available
- Special metallurgy available on request

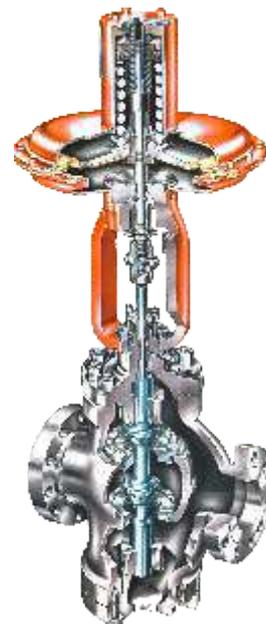
### Specifications:

Valve Type: Double Seated Globe

Size: ½" to 18" (Larger Sizes available on request)

Rating: ASME Class 150-600

Materials: Carbon Steel, Stainless Steel, Special Alloys



### Application

The choice for reliable, tough double seated globe valve finds applications in Oil and Gas, Fertilizers, Steel, Power plant, Chemicals, Pharmaceutical and Food industries.

For more information, refer to Catalogue Series 20



## Three Way Globe Control Valve (Series 30)

The 3-way Control valve is designed to precisely Control water, steam, hot oils and other industrial fluids for mixing or diverting applications.

### Features

- High Flow capacity
- The internal valve trim is designed to ensure long service life, avoiding unnecessary maintenance
- High rangeability
- The same construction may be used for both mixing and diverting applications

### Specifications:

Valve Type: 3 Way Globe (Mixing/Diverting)

Size: 1/2" to 12" (Larger Sizes available on request)

Rating: ASME Class 150-600

Materials: Carbon Steel, Stainless Steel, Special Alloys



### Application

3 Way Globe Control Valve is the choice where accurate temperature control in heat exchanger applications is needed.

Finds extensive use in Chemicals & Paint Industry where hot oils are used extensively.

For more information, refer to Catalogue Series 30

## Desuperheaters (Series 40)

In many manufacturing processes, steam is superheated and distributed at high-pressure for efficiency. Pipeline Desuperheaters are designed to reduce the temperature of superheated steam for optimal heat transfer and efficiency.

### Features

- High rangeability variable spray unit
- Control within 6°C above saturation temperature
- Accurate and repeatable control of Fluid temperature
- High Spray water pressure capability
- Wide range of available nozzles
- Erosion resistant materials of construction
- Ease of Installation
- Low maintenance

### Specifications:

Ratings: ANSI 150 to 600 Condensate

Connection: 1 1/2", Stub Flange: 3"

ANSI 900 to 1500 Condensate

Connection: 2", Stub Flange: 4"



### Application

Desuperheater systems provide a convenient method of reducing superheated steam or other vapours to temperatures approaching saturation, generally applicable to Power and Sugar industry.

For more information, refer to Catalogue Pipeline Desuperheater



## Pressure Reducing Valve (Series 60)

Pressure Reducing Valve is self-actuated to keep downstream or upstream pressure regulated.

### Features

- Does not require any external / auxiliary energy
- Uses Line Pressure Energy to Control
- Low maintenance
- Valve Disc is reversible and can be changed quickly for renewed life
- Pressure Balanced design, any fluctuations in the inlet pressure has negligible effect on regulated pressure

### Specifications:

Valve Type: Self Actuated Pressure Reducing Valve

Size: ½" to 8"

Rating: ASME Class 150 - 300

Materials: Carbon Steel, Stainless Steel



### Application

Pressure Reducing Valves are used extensively in Fertilizers, Chemical process, and Pharmaceutical and Natural Gas distribution industry.

For more information, refer to Catalogue Series 60

## Angle Globe Control Valve (Series 70)

Angle control valves are most commonly used to let down pressure, regulate level and flow.

### Features

- High Flow capacity
- Tight Shut Off
- High Rangeability
- Wide range of interchangeable trim styles and sizes available
- Adaptability to special duties  
ie venture outlet, low noise etc
- Special metallurgy available on request

### Specifications:

Valve Type: Angle Globe

Size: ½" to 6" (Larger Sizes available on request)

Rating: ASME Class 150 - 2500

Intermediate ratings up to ASME Class 4500 can be provided on request

Materials: Carbon Steel, Stainless Steel, Special Alloys



### Application

The choice for globe valve for severe letdown applications and where fluid contains solid particles. Finds applications in Oil and Gas (Coal gasification and liquefaction), Fertilizers, Petrochemicals (PTA, polymers PET, PBT, Polyurethane, PVC etc.), Power plant applications and Chemical industries.

For more information, refer to Catalogue Series 70



## Butterfly Control Valve (Series 80)

Butterfly valves are designed for isolation on / off service, as well as for control. Shutoff is provided by a variety of seals which include metal, PTFE and other elastomer seats.

### Features

- Wafer Style End Connection  
(Flanged connection on request)
- Concentric, Eccentric, Double Eccentric option
- Choice of various elastomers or PTFE Sleeve
- Tight shut off with elastomer Sleeves
- Minimum obstruction for flowing media
- Very high Cv to body size ratio
- Simple and light construction
- Ease of Installation
- Low maintenance

### Specifications:

Valve Type: Butterfly

Size: 2" to 36"

Rating: ASME 150-300

Type: Concentric / Eccentric / Double Eccentric

Materials: Carbon Steel, Stainless Steel, Special Alloys

Seats: Metal, PTFE, Neoprene, Viton, Silicone, EPDM or other elastomers on request.

Actuators: Spring and Diaphragm (Linear), Rack and Pinion or Scotch Yoke (Rotary).



### Application

Butterfly Valves offer an economical solution for handling gases and liquids, that are easily displaced, by the valve disc as it closes. Butterfly valves provide a reliable, bubble-tight, bi-directional shut off. Finds extensive applications in Steel, Paper, Sugar and Textile Industry.

For more information, refer to Catalogue Series 80

## Ball Control Valve (Series 90)

Ball Valves are versatile valves designed for throttling control of fibrous suspension applications plus cleans dirty, viscous and corrosive liquids and gases. They are designed to meet the highest industry standards for dynamic performance.

Ball Valves are more compact, lighter weight and less expensive than comparably sized globe valves.

These valves exceed leakage Class VI offering bubble-tight shutoff. Other features include superior rangeability and repeatability.

### Features

- Bubble Tight shut off
- For modulating and On Off control
- Minimum obstruction for flowing media
- High flow capacity
- O Ball & V Notch Construction available
- Ease of Installation
- Low maintenance

### Specifications:

Valve Type: Ball.

Size: 2" to 8" (Higher Sizes on request).

Rating: ASME Class 150-600 (Higher rating on request).

Type: Floating Ball/Trunion Mounting.

Materials: Carbon Steel, Stainless Steel, Special Alloys

Seats: PTFE, RPTFE, PEEK Available with API 6D/CE certification

Actuators: Spring and Diaphragm (Linear), Rack and Pinion or Scotch Yoke (Rotary).



### Application

Ball Valves are used in Paper, Pulp and Textile Industries.

Available with **API 6D/CE** certification

For more information, refer to Catalogue Series 90



## Bellow Sealed Valve

Bellow Sealed valves are designed to eliminate valve leakage through gland, also known as Zero Leak Valves. This is available as an additional feature to give total leakproof packing in Single Seated, Double seated and Three way Control valves.

### Features

- Stainless Steel Bellows are used to withstand high pressure and temperature
- PTFE Bellows are available for low pressures and temperature upto 180°C
- Hastelloy / Monel Bellows are available for corrosive application
- Eliminates product loss, protects personnel and the environment from hazards, and reduces the costly downtime associated with packing maintenance.



### Applications

Bellow Sealed valves are typically used to handle a wide range of hazardous and corrosive chemicals, including chlorine, ammonia, phosgene, butadiene, benzene, hydrochloric acid, hydrogen, thermic fluid and fatty acids.

## Special PTFE and PTFE lined Globe Control Valve

Series 10 PTFE Control Valves are specially designed to withstand highly Corrosive fluids in Chemical, Pharmaceutical and Fertilizer Industries.

**Sizes:** 1/2", 3/4", 1", 1.5" and 2"

**Rating as per ASME Class 150**

### Maximum Pressure handled

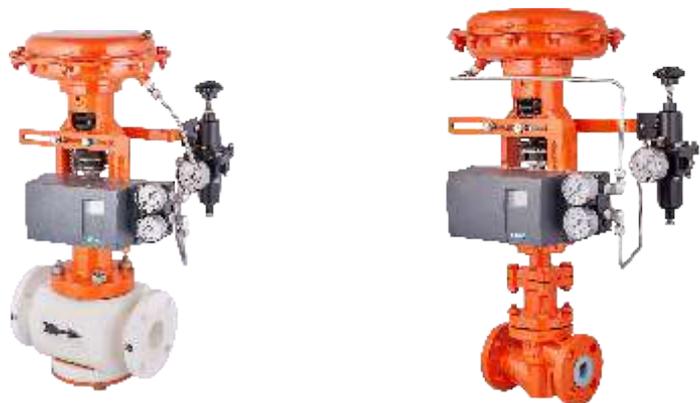
- 10 kg/cm<sup>2</sup>g with standard bonnet
- 4 kg/cm<sup>2</sup>g with PTFE bellows

### Maximum Temperature

- 180°C

PTFE Valves are developed to cater to the process where very corrosive fluids are involved and cost of exotic metals becomes prohibitively expensive apart from scarce availability.

PTFE (Poly Tetra Fluro Ethylene) being inert is corrosion resistant to most of the fluids.



**PTFE Control Valves**

**PTFE Lined Control Valves**

### Application

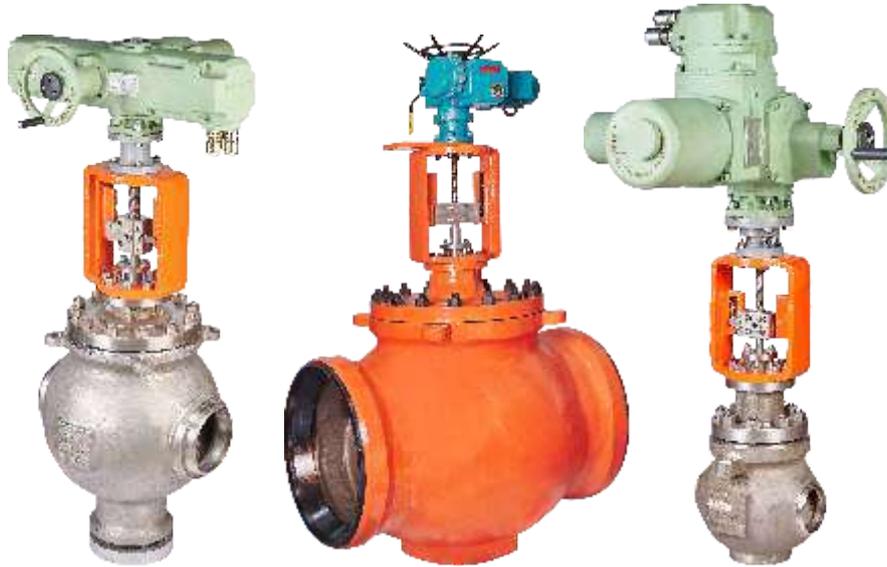
Highly corrosive fluids.

On request can offer PTFE lined valve



## Nuclear Control Valves

Typical High Pressure Globe Control valves (2 Way and 3 Way) with Electrical Actuators for Nuclear applications.



## Power Cylinder

Various types of opening and closing can be performed either by changing the linear motion of power cylinders into turning force through link mechanisms or by using the linear motion directly.

### Features

- Higher Strokes
- Stay put Action
- Can be given with Smart Positioners
- Low maintenance

### Specifications:

Type: Double Acting Pneumatic Power Cylinders  
Bore Size: 3" to 12" (Higher bore size on request)  
Stroke: Upto 16" (Higher stroke on request)  
Maximum Working Pressure: 10 kg / cm<sup>2</sup>g  
Maximum Working Temperature:

- 80°C with Nitrile Seals
- 250°C with Viton Seals

Air Consumption: 1.0 SCFM



### Application

Finds extensive applications in Opening and Closing of Hopper Gates, lids of Drying Furnaces Dampers, Butterfly Valves and for specific applications like control of FD and ID Fans in Boilers  
For more information, refer to Catalogue Power Cylinders



## Actuators

A pneumatic actuator converts energy (typically in the form of compressed air) into mechanical motion. R.K. Control manufactures pneumatically operated actuators in house.

### Features:

- Higher Power
- Fast Response
- Low Hysteresis
- Field reversible (Except Model 38E)
- Limit Stops available
- Flexibility in Selection of Springs
- Manual Override (Handwheel) can be provided in Top Mounted Design or Side Mounted Design.

## Specifications

- **Spring and Diaphragm Actuators Sizes:** 38 to 300 Sq inch
- **Piston Actuator Sizes:** 75 to 450 Sq Inch. Larger sizes on request
- **Types:** Single Spring Diaphragm Actuators, Piston actuators and Multi Spring Diaphragm Actuators



NOTE: Electrical Actuators can be provided on request

## Accessories

### Valve Positioner

#### Specifications:

Input Signal 3 to 15 psig or 0.2 - 1.0 kgf/cm<sup>2</sup>g as standard, split range available on request

**Stroke Range:** 3/8" to 3", 3" to 4".

**Action:** Direct/Reverse

**Accuracy:** 1% of Valve Stroke

#### Features:

- Minimizes the effect of stem frictional force
- Fast response
- Higher accuracy
- Higher stability

#### Application:

Accurate positioning of the control valve.



For more information, refer to Catalogue Valve Positioner

### Volume Booster

#### Specifications:

**Supply / Output Connection:** 1/4", 1/2" or 3/4" NPT (F)

**Signal Connection:** 1/4" NPT (F)

**Maximum Supply Pressure:** 100 psig- for 1/4", 150 psig for 1/2" & 3/4"

**Pressure Ratio:** 1:1

#### Features:

- Quick response
- Greater stability
- Aluminium or Stainless Steel Material option

**Application:** To reduce the response time, particularly of large actuator.



For more information, refer to Catalogue Valve Boosters

### Air Lock Relay

#### Specifications:

Air supply Maximum 7 kg/cm<sup>2</sup>g (100 psig).

#### End connection:

1/4" NPT (F)

**Material:** Aluminium or Stainless Steel Option.

**Features:** In built manual relief valve is provided if the control valve has manual handwheel. This exhausts the diaphragm chamber when the handwheel is operated to avoid damage to the actuator diaphragm.



#### Application:

To achieve stay put condition on supply failure.

For more information, refer to Catalogue Air lock Relay

### Air Filter Pressure Regulator

#### Specifications:

##### Inlet Pressure:

Upto 10kg/cm<sup>2</sup> (150 psig)

##### Outlet Pressure:

Pressure ranges of 0 to 30 psig, 0 to 60 psig and 0 to 120 psig

##### End Connections:

Inlet/outlet/Gauge: 1/4" NPT (F)

**Filter Element:** ABS plastic, 25 microns and 5 microns option (Bronze, SS filter on request)

#### Features:

- Higher capacity and lower drop.
- Soft seat construction in both the pressure reducing and relief sections
- Aluminium and stainless steel material option



For more information, refer to Catalogue Air Filter Pressure Regulator



## VARIOUS CERTIFICATION AND TESTINGS AVAILABLE

### CERTIFICATES

- MTC As Per EN 10204 3.1 / 3.2
- IBR (Indian Boiler Regulation)
- NACE MR 0175 / ISO151516



### TESTINGS

- DRT: Dynamic Response Test (For Nuclear Industry)
- Siesmic Test: (For Nuclear Industry)
- MPT (Magnetic Particle Test) - ASME B16.34
- Dye Penetrant Test - ASME B16.34
- Radiography Testing - ASME B16.34
- Ultrasonic - ASME B16.34 (2013)
- IGC (Intra Granular Corrosion Test) - ASTM A262
- Helium Leak Test
- Valve Capacity Test (Cv Test Lab - in House)



### Disclaimer

Neither R.K. Control Instruments Pvt. Ltd. nor any of our affiliated entities assumes responsibility for the selection use or maintenance of any product.

Responsibility for correct and proper selection, use & maintenance of any product remains solely with the purchaser and user .

The contents of this catalogue published are presented for information purpose only and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees express or implied, regarding the product or sources described herein or their use or applicability.

All sales are governed by our terms & conditions.

We reserve the right to modify, or improve the designs or specifications of products at any time without notice.



**RK CONTROL  
INSTRUMENTS**

Mastering Flow Since 1969

An ISO 9001 Certified Company

**Works (Thane)** : Plot No. A-250, Wagle Industrial Estate, Opp. Wagle Police Station,  
Thane 400 604, Maharashtra, India.

T: 022-6606 0943 • Email: info@rkcipl.co.in, sales@rkcipl.co.in

**Works (Rabale)** : RTC 51/52, Rabale TTC, MIDC, Rabale, Navi Mumbai 400701,  
Maharashtra, India.

T: 022-6606 0943 • Email: info@rkcipl.co.in

**Chennai** : No.22/11, G3, Sai Virat Krishna, Lawyer Jagannathan Street,  
Behind Le Royal Meridien Hotel, Guindy, Chennai 600 032.

T: 044-4202 3937, 2233 3358 • Email: saleschennai@rkcipl.co.in

[www.rkcipl.co.in](http://www.rkcipl.co.in)