

3 WAY VALVE

# ROTARY

MINIMAL LEAKAGE  
MAXIMAL PERFORMANCE

Our 3 way control valve assures energy savings by reduction in oil consumption, leading to reduced cost and downtime for ships.



# WHEN LOW LEAKAGE MATTERS.

## MEET OUR 3 WAY ROTARY VALVE -

A game changing innovation in temperature and pressure controls.  
Flexible. Durable. Tighter than ever.

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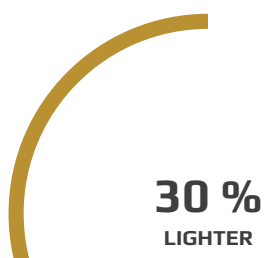


**BEAUTIFUL FORM,  
PERFECT FUNCTION.**

# INTRODUCING 3 WAY VALVE

We proudly deliver a unique and competitive product, guaranteeing reliable operation and performance.

Whenever a media must be heated or cooled to a certain temperature, Clorius Controls has the most efficient solution.





## ROTARY 3 WAY VALVE

SIZES DN 65 - DN 800

Our Rotary 3-Way valve with a slide for quarter turn operation is designed for regulating of fresh as well as sea water, lubricating oil and other liquid media.

The valve type is designed for use in conjunction with industrial processes, water systems, central & district heating, marine & offshore, and building & utility applications with large flow volumes.

The valve is designed for mixing and diverting media flows.

## TYPICAL APPLICATIONS

- Engine Cooling Systems
- Waste Water Treatment Systems
- Renewable Energy Systems
- District Heating Systems
- Marine Cooling Systems
- Boiler and Heat Exchanger Systems
- Heat, Ventilation, and Air Conditioning

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# ELECTRONIC TEMPERATURE CONTROLS

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## ELECTRONIC SYSTEM

The electronic temperature and pressure control system combines an electrically actuated three-way control valve with an electronic controller and essential temperature sensor.

Microprocessor-based Controller type ER2000 for electronic temperature control is used for constant temperature control. It is suitable for all heating and cooling control systems. The ER2000 is a single loop controller which is intended for marine installations and other industrial applications - such as cooling water and lubricating oil installations, flow temperature control etc.

Microprocessor-based Controller type ER3000 Electronic Temperature Control is used where conventional single loop controllers cannot maintain a constant and precise temperature.

The ER2000 and ER3000 controllers are designed for panel mounting and are fully programmable, which allows for uncomplicated system configuration.

The valve is designed for mixing and diverting media flows for large flow control systems.



# SELECTING YOUR SOLUTION >>>

## STEP 1

Choose your valve and actuator

ELECTRIC ACTUATOR



3-WAY VALVE

## STEP 2

Choose your controller

PLC PROGRAMMABLE LOGIC CONTROLLER



CONTROLLER ER2000



CONTROLLER ER2000  
CONTROLLER ER3000

## STEP 3

Choose your sensor

SENSOR



SENSOR



# PNEUMATIC TEMPERATURE CONTROLS

## PNEUMATIC SYSTEM

The pneumatic temperature control system integrates a pneumatically actuated three-way control valve with a pneumatic controller and temperature sensor and a pneumatic-pneumatic positioner. The pneumatic system is especially suitable when there is lack of electricity or when a fail-safe system is required.

## ELECTRO-PNEUMATIC SYSTEM

The electro-pneumatic temperature control system utilizes both electric and pneumatic technology, composed of a pneumatically actuated three-way control valve and electro-pneumatic positioner.

## PERFECTED FOR HARSH ENVIRONMENTS

Clorius Controls' EPR/PPR Electro-pneumatic/ pneumatic-pneumatic positioner is a rugged control device especially suited for harsh environments and engineered to meet the highest and most demanding control performance that the process industries of today require.

The AD/ADHW pneumatic actuators are made according to the Scotch Yoke principle, which is characteristic for its high torque when required - at the beginning and at end of each operation. This increases safety and reduces the energy consumption. The filter regulator, equipped with auto drain is protecting the positioner from dust, water and oil particles in the compressed air supply. With the backflow function it incorporates a mechanism to exhaust the air pressure in the outlet side reliably and quickly.





# SELECTING YOUR SOLUTION >>>

## STEP 1

Choose your valve, actuator and positioner



3-WAY VALVE



PNEUMATIC ACTUATOR  
TYPE AD/ADHW



PPR/EPR  
POSITIONER

## STEP 2

Choose your air reduction valve/Filter



FILTER REGULATOR

## STEP 3

Choose your controller

PLC  
PROGRAMMABLE  
LOGIC CONTROLLER



PN CONTROLLER



CONTROLLER ER2000

## STEP 4

Choose your sensor



SENSOR

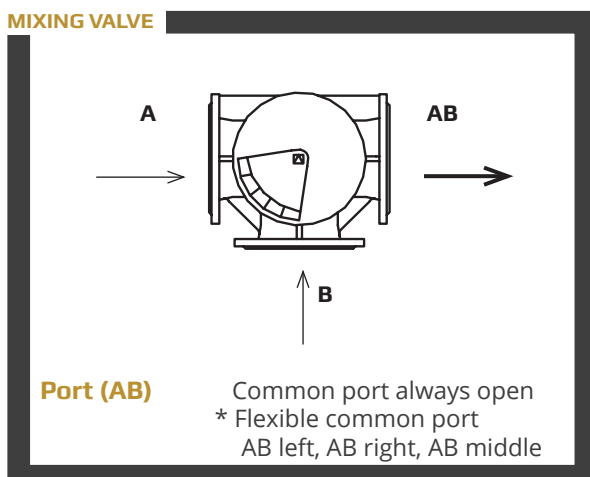


# TECHNICAL DATA // MATERIALS

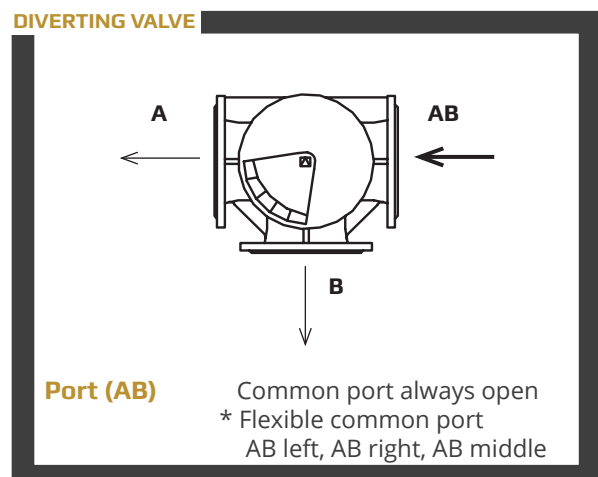
## MATERIALS

■ Valve body	Nodular cast iron EN-GSJ-400-15 Gun Metal RG5 Stainless Steel AISI316/A75H
■ Slide	Nodular cast iron EN-GSJ-400-15 Gun Metal CuAl10Fe5Ni5 Stainless Steel AISI316/A75H
■ O-ring	Nitrile rubber
■ Leakage	Less than 0.5 %
■ Temperature range	Max. 100 °C (option 250 °C)
■ $k_{VS}$ -value (Mixing valve)	95 - 6200 m <sup>3</sup> /h
■ $k_{VS}$ -value (Diverting valve)	120 - 8000 m <sup>3</sup> /h
■ Nominal Pressure	
<b>NODULAR CAST IRON</b>	DN 65 - DN 125: PN 25 DN 150 - DN 300: PN 16 DN 350 - DN 800: PN 10
<b>GUN METAL</b>	DN 65 - DN 300: PN 10 DN 350 - DN 800: PN 6
<b>STAINLESS STEEL</b>	DN 65 - DN 125: PN 25 DN 150 - DN 300: PN 16 DN 350 - DN 800: PN 10
■ Flanges	EN 1092-2 PN 10/16 / JIS B 2210 5k / ANSI 150 / GROOVED JIS B 2210 10k JIS B 2210 16k

**MIXING VALVE**



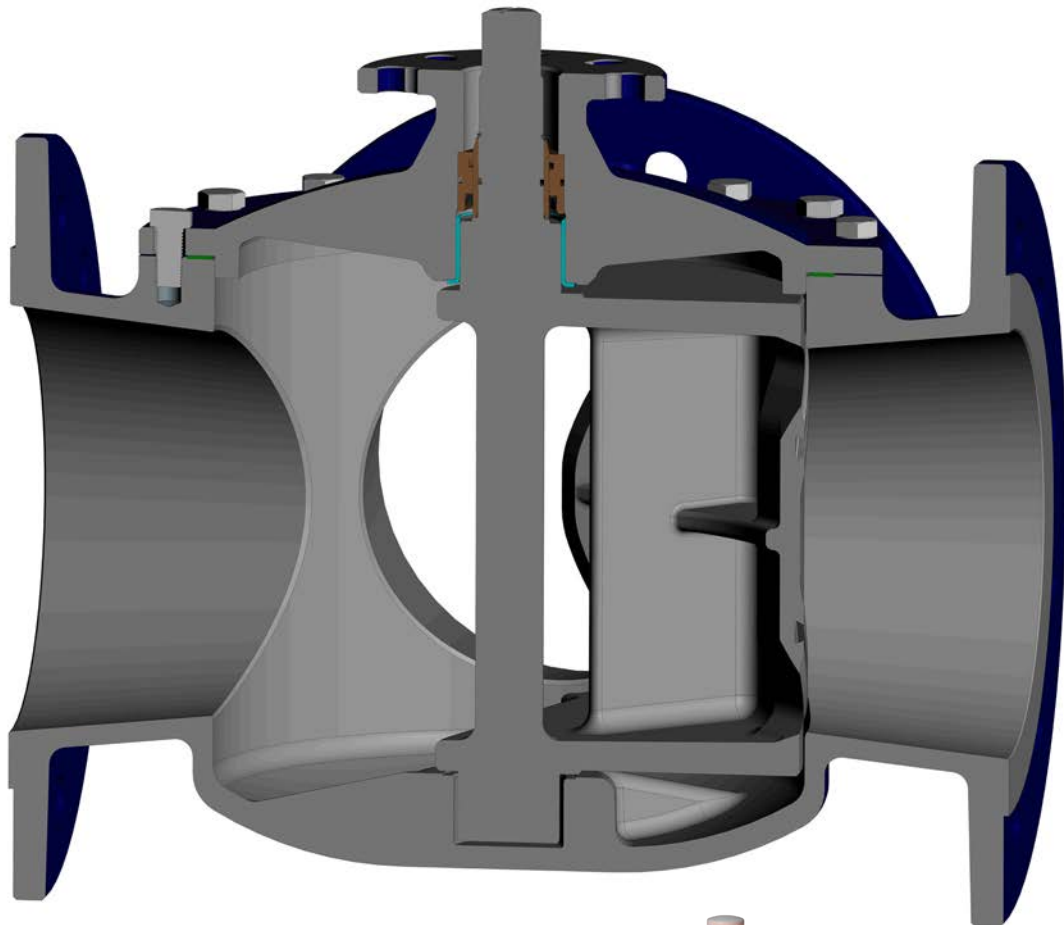
**DIVERTING VALVE**



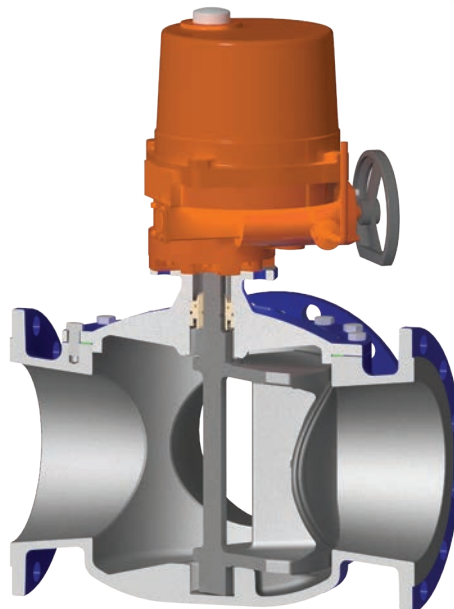
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# SECTIONED 3 WAY VALVE >>>

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Slide with soft seating





**PIONEERING  
TECHNOLOGY.**

**HEADQUARTERS**

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