

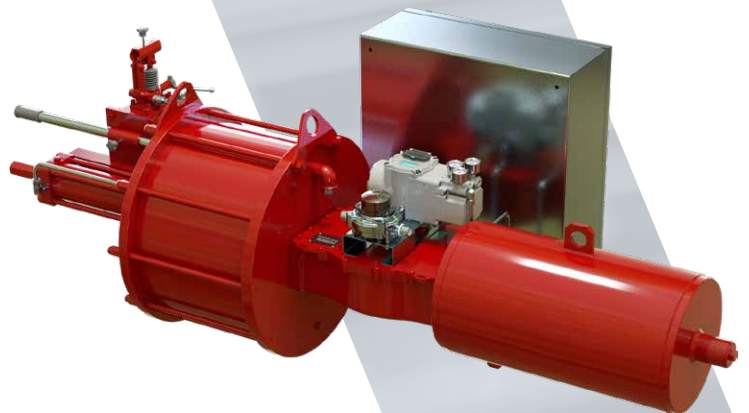


Keeping the World Flowing
for Future Generations

RTP-4000 range next-generation intelligent valve positioners

Optimised solution for rotary and linear valves, combining smooth installation and commissioning procedure, advanced pressure sensor-based diagnostics and seamless system integration with fast and energy efficient operation.

- **Simple installation and commissioning** – Easy setup and integration with all control systems
- **Reliable operation** – Contactless position feedback with no mechanical wear and built-in intelligence using internal pressure sensors
- **Rugged construction** – Engineered for operation in harsh environments
- **Digitalisation** – Advanced online diagnostics enable predictive maintenance
- **Data accessibility** – Seamless integration with all main DCS and AMS systems through configurable Digital Output and Input options
- **Energy savings** – High capacity combined with optimised supply air consumption
- **Simple system design** – High capacity reduces the need for volume boosters and accessories



The RTP-4000 range features high pneumatic capacity, enabling fast valve operation without the need for external volume boosters, while the advanced design provides diagnostic information for use with predictive maintenance systems.

The contactless position feedback design eliminates the wear of traditional linkage systems, providing a durable and reliable solution for single- and double-acting actuators on both linear and rotary valves.

Key Features and Functions

Next-generation design

- Magnetic-type leverless and linkageless position feedback enables optimised installation and commissioning
- Simple autocalibration
- Pressure sensor-based versatile online diagnostics feature device statuses in accordance with NAMUR NE107
- Dual-certified for use in Exd explosionproof and Exi intrinsically safe areas (RTP-4400 model)
- Support for Emergency Shutdown (ESD) applications with Partial Stroke Testing (PST) and diagnostics
- Corrosion-resistant polyester powder coating and copper-free aluminium ensure long-term durability in corrosive environments
- Wide selection of rotary mounting brackets available for installation on any pneumatic actuator

Diagnostic capabilities

- Advanced offline diagnostics: valve signature test, partial stroke test, a user-configurable step response test, test report and comparison test report
- Premium online diagnostics: trends, monitoring and counters
- Self-diagnostics capabilities
- Alarm panel, alarm list by NE107 category, alarm information, alarm log and proposed action
- User-friendly dashboard provides a one-glance overview of valve status

Standard features

- Auto/manual tuning and commissioning
- Ingress Protection to IP66
- Tight shut-off function minimises valve leakage
- Two conduit entries as standard
- Split range control supports segmented control ranges such as 4-12 mA and 12-20 mA

Linkage-less non-contact position feedback

Linkage-less feedback system eliminates the need for mechanical connections (levers or linkages) between actuator stem and device, thereby eliminating mechanical wear or corrosion and simplifying installation and maintenance. The same device can be flexibly adapted for use with either linear or rotary actuators by simply replacing the external magnet.

Smooth installation and commissioning

Quick and simple configuration, calibration and commissioning, supported by both local and remote operation.

Low air consumption

Enhanced air flow capacity with optimised supply air consumption, contributing to reduced operational costs.

Corrosion resistance

Constructed with copper-free aluminium (less than 0.4% copper content) for improved corrosion resistance.

Durable and robust construction

Designed to withstand harsh environments including humidity, corrosive atmospheres and vibration.

Potted electronics

Electronic circuits are potted in resin to protect against moisture, dust, toxic chemicals and mechanical shock.

Modular design

Simplifies maintenance and servicing.

Network communication

HART 7 support as standard.

Compatibility with multiple host systems

Interoperability with different host systems, based on FDT/DTM and EDD technologies.

Non-intrusive setting

Operation without opening the cover, enabling parameter adjustments in explosive gas environments.

Flow control characteristics

Supports linear, quick open, equal percentage and user configurable 5 or 21 points.

Options

- 4-20 mA analogue output: Position transmitter (NE43 is supported)
- Two isolated digital output switches: Switches configurable for limit switches or alarm functions
- One digital input switch: Enables special valve operations via external input
- Arctic temperature build to -55 °C
- Pressure gauges

A large, complex offshore oil platform with multiple levels, yellow structural beams, and white cylindrical storage tanks. The platform is situated in the middle of a blue ocean under a clear blue sky. A red banner is overlaid on the upper right portion of the image.

RTP-4000 delivers intelligent, safe,
durable and cost-effective pneumatic
actuator valve control powered by
trusted Rotork technology.

RTP-4000 Range

Next-generation intelligent valve positioners

The RTP-4000 range launches with the RTP-4400 valve positioner, offering smooth installation and commissioning, seamless system integration, high levels of efficiency, advanced diagnostics and dual-certification for use in Exd explosionproof and Exi intrinsically safe areas.

Product Code

RTP-4400 - S - D - 4 - 2 - 1 - A - 1 - S

Acting type

- S = Single
- D = Double

Explosion protection

- D = ATEX, IECEx, UKCA¹
- Z¹ = NEPSI, CCC
- K¹ = KCs
- A¹ = FM, CSA
- P¹ = PESO
- B¹ = INMETRO
- E¹ = EAC
- U¹ = ECAS

Conduit & air connection

- 4 = M20x1.5P - ¼ NPT
- 5 = ½ NPT - ¼ NPT

Communication

- 2 = HART protocol communication

Input/Output

- 0 = None
- 1 = 4-20 mA analogue output
- 2 = Discrete switch input and output
- 3 = 4-20 mA analogue output + discrete switch input and output

Diagnostics

- A = Advanced
- P = Premium

Pressure gauge

- 0 = None
- 1 = Three pressure gauges

Ambient operating temperature

- S = -40 to +85 °C (-40 to +185 °F)
- L = -55 to +85 °C (-67 to +185 °F)

Notes:

- 1. Certification pending.

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