

PS2 POSITIONER BY SIEMENS

PRECISE INTERACTIVE CONTROL



KIMRAY
INC.®

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INTRODUCTION

Kimray has partnered with Siemens, a global engineered leader, to offer you the latest in electro-pneumatic positioning. The PS2 by Siemens gives you the ability to monitor and control pneumatic valves on site from an RTU. Pair the PS2 with a Kimray High Pressure Control Valve and you have Kimray quality and durability with Siemens innovation in technology.

The PS2 is ideal for positioning a valve when pressure or flow control is required. The PS2 provides exact valve positioning for precise control of process fluid. The unit compensates for hysteresis and large pressure drops that change the position of the actuator by having direct feedback from the stem position.

THE CHALLENGE

A producer needs a device that will directly connect valves and equipment to automation equipment.

THE SOLUTION

The PS2 is ideal for remotely monitoring and controlling any pneumatic valve and is offered with many different communication protocols to meet the needs of all end users.

HOW IT WORKS

The PS2 may be operated manually or electronically. To manually operate the controller, known as local operation, use the built-in display and three buttons to select one of four operating functions: automatic, manual, configuring or diagnosis. Manual operation allows the drive to be adjusted over the entire range without interrupting the circuit.

When operating the PS2 electronically, the Simatic PDM software allows simple operation, monitoring, configuration and parameterization of the valve. Communication is carried out via HART Protocol or PROFIBUS Process Automation.

This comparison of the setpoint and the actual valve position takes place electronically in a microcontroller. If a deviation is found, the PS2 uses a five-way switch procedure to control the air moving the valve diaphragm.

THREE ENCLOSURE OPTIONS ARE AVAILABLE FOR THE PS2 POSITIONER:

- **Makrolon:** The standard enclosure for non-hazardous applications is intrinsically safe and Ex ia. (shown)
- **Stainless steel:** This option is ideal for sour gas.
- **Aluminum:** The Ex d model is explosion-proof and has a Class I, Division 1 rating when used with supply air.



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KEY DESIGN FEATURES

- **Efficient Design:** The PS2 only uses air when required. The positioner may be operated manually or electronically. Complete valve diagnostics are standard. The PS2 has unique piezo ceramic microvalves.
- **Simple Programming:** The PS2 is simple to program, with only three buttons and a two-line display. The unit monitors the valve and responds accordingly to maintain the setpoint.
- **Fast Commissioning:** The PS2 can be calibrated in minutes.
- **Flexible Communication:** Analog, HART, PROFIBUS or Foundation Fieldbus are all options.
- **Low Air Consumption:** The PS2 uses .002 scfm, compared to the industry average of 1.5 scfm.

APPLICATIONS

- Flow control
- Pressure control
- Liquid level control

SPECIFICATIONS

Load Voltage	$\leq 0.2 \text{ V}$ (= 10 Ω) for basic and Ex d versions, $\leq 1 \text{ V}$ (= 50 Ω) for ia, ic, nA and t versions
Signal Range	0/4 ... 20 mA
Test Voltage	840 V DC, 1 s
Input Range	0 to 20 mA or 4 to 20 mA



The background of the entire page is a close-up photograph of two pressure gauges mounted on a red industrial component. The gauges are silver with white faces and red markings. The top gauge's needle is pointing to approximately 60 on the outer scale (0 to 160) and 0.6 on the inner scale (0 to 1.0). The bottom gauge's needle is pointing to approximately 40 on the outer scale and 0.4 on the inner scale. Both gauges have 'psi', 'MPa', and 'bar' units listed, along with a 'WIKAI' logo and 'CL 2.5' marking.

WHO WE ARE

Kimray designs and manufactures oil and gas control products. Based on more than 65 years of pioneering product development, we provide products and services that work better, smarter and more inventively. We generate meaningful solutions by staying curious and engaging in customers' needs. Our product ideas are fueled by a deep desire to make a difference that is both personal and unique to the customer.

We have made it our life's work to provide products and services that are positively impactful. Through the years, this pursuit has built strong relationships. Our customers have known that buying from Kimray is about much more than the product. The relationships between Kimray representatives and our customers extend from before the sale through the life of the product. Those relationships, along with quality Kimray products, are the result of a company striving for excellence for our customers, our company and our community.

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