

SIEMENS



PROCESS INSTRUMENTATION

SIPART PS100 and SIPART PS2

one family that masters everything. Reliable and flexible valve control

usa.siemens.com/positioners

SIEMENS

As the interface between the control system and valves, positioners play an important role in ensuring reliability and optimal performance in your automated process plants. With the proven SIPART PS2 – now with new features – and the new SIPART PS100, we offer two positioners that are just right for your applications and requirements.

From basic to premium: SIPART PS100 and SIPART PS2

SIPART PS100 – the simple controller

Not all applications need an all-rounder like the fully-featured SIPART PS2. That's why we expanded our portfolio to give you the option of a new and highly efficient electropneumatic positioner, the SIPART PS100. It's the right choice whenever you need a simple, fast, and reliable controller for standard applications.

Special features of the SIPART PS100:

- Quick to initialize
- Very robust and easy to operate





**SIPART PS2 –
the all-round controller**

The SIPART PS2 has grown to become the most widely used positioner for linear and part-turn actuators. It has proved reliable in many valve control applications thanks to its diagnostic capability and extensive range of functions, which we've now extended even further.

More functions, more options

- *Optional pressure sensors:* improved valve diagnosis and process parameter monitoring
- *Regular partial stroke tests:* ensured movement of emergency shut-down (ESD) valves and other open/close valves in the event of an emergency
- *Fail in Place:* the valve remains in its last position upon loss of electrical and/or pneumatic power
- *Fail Safe:* the valve moves to the safety position; also suitable for SIL2 applications
- *Valve performance tests (VPT):* immediate, on-site assessment of valve maintenance requirements



SIPART PS100 and SIPART PS2 – the choice is yours



Ease of use

Robust: non-contacting sensor, non-corrosive sou

Environmentally friendly: low compressed

Extendable: integrated booster, moun

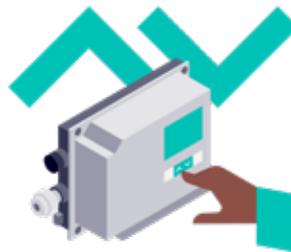
Smart features: Fast Open/Fast Cl

SIPART PS100



Quick to initialize

- One-push initialization: initialize at the push of a button
- Device automatically adjusts to the connected valve
- Quick start menu to further configure the operation



Easy selection of the control mode

- Application parameters to select a range of modes, for example: precise control, on/off operation, booster applications
- Maximum performance for every application



Valve status at a glance

- Large display for valve position, setpoint, and diagnostic information
- Status icons in accordance with NAMUR NE107
- Plain-text setup menu for application-specific parameters
- Service menu provides access to valve performance indicators

SIPART PS100 or SIPART PS2 – you can make the choice that’s right for you depending on your application. Whereas the main strength of the SIPART PS100 lies in its “ease of use” approach, flexibility is the name of the game with the SIPART PS2. We haven’t cut any corners when it comes to the benefits they both offer.

Flexibility

- and absorber, multiple enclosure variations
- low air consumption and CO₂ emissions
- mounting kits, pressure-gauge blocks
- noise, leakage compensation



SIPART PS2



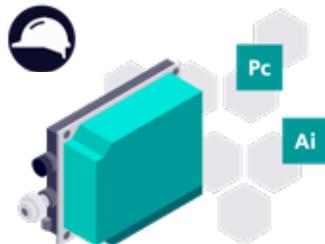
Expanded diagnostic functions

- Integral pressure sensors monitor compressed air supply and valve chamber pressure
- Stable control, even in case of pneumatic leaks or deposit buildups
- Maintenance information on spring status, number of strokes, static friction affecting the gland seal, wear to the valve seat, and alerts in accordance with NE107



Digitalization

- Extensive control and diagnostic options using the valve monitoring app
- Fast and predictive determination of valve maintenance requirements
- Information transmitted to higher-level maintenance systems



Suitable for any environment

- Enclosures in aluminum, polycarbonate or stainless steel - for use in particularly aggressive environments (e.g. offshore operation, chlorine plants)
- Suitable for hazardous areas (including XP), with options for nuclear and cryogenic applications
- Can be operated with compressed air, natural gas, carbon dioxide, nitrogen, or other noble gases

Two products with a lot in common

Lower CO₂ emissions and the right enclosures for your needs – the strengths of the SIPART devices include being environmentally friendly and very robust.

Extremely robust

- Non-contacting sensor
- Non-corrosive sound absorber
- Range of enclosure options

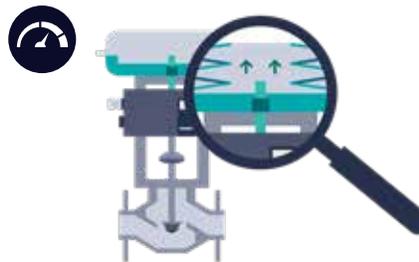
Environmentally friendly portfolio

- Low compressed air consumption
- Reduced CO₂ emissions from compressors
- Compressed air savings of up to 90 percent possible compared with traditional devices



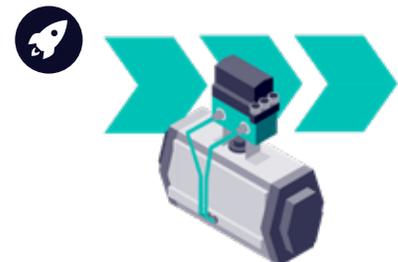
The expanded functions of the SIPART positioners offer you all the benefits needed to ensure that you're optimally prepared for the challenges the market can throw your way.

These functions include the unique Fast Open/Fast Close technology, integrated boosters to adjust large valves quickly, and the compensation of leakage.



Fast open / Fast close

- Faster valve adjustment thanks to smart chamber pressure control
- Air isn't completely released from the valve, so a new operation point is reached more quickly
- The result is a substantial reduction in costs



Integrated booster

- Fast adjustment for large drives
- Mounted directly on the positioner, reduces external tubing to a minimum
- Software-supported initialization directly from the positioner

The future is digital

Thanks to assessments using the Siemens valve monitoring app, SIPART PS2 provides you with end-to-end control and analysis options. This maintenance information can be transmitted to higher-level maintenance systems so you can plan and perform your maintenance activities predictively and flexibly adapt your service intervals to suit your requirements. The result is greater plant availability and reliability as well as maintenance costs you can plan for.



The valve monitoring app alerts you to potential deviations during operation and lets you plan maintenance activities in advance.



Maintenance schedules are clearly displayed and can be accessed anywhere.



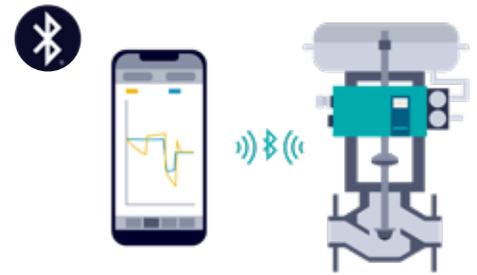
Positioning made simple with the PS100

- Non-contacting magnetic sensor for valve position detection
- Enables one-touch-initialization
- Wear-free and vibration resistant
- Automatic detection of valve characteristics



Position detection flexibility with the PS2

- New standard non-contacting magnetic sensor for position detection
- Wear-free and vibration resistant
- Straight-forward commissioning with zero mechanical interactions
- Provides precise, accurate, and repeatable valve control
- Optional traditional potentiometer or remote input module



Bluetooth connectivity

- Bluetooth communication between the PS2 or PS100 and the SITRANS mobileIQ app
- Convenient interaction with devices in hard-to-reach locations
- Remote commissioning and access to maintenance and diagnostic information

Designs in the SIPART family

The positioner: an all-rounder that optimally meets a wide variety of requirements, whether in compact form for many standard applications or in a remote version for specific applications.

Compact positioners

SIPART PS100 in polycarbonate or aluminum enclosure



SIPART PS2 in polycarbonate, aluminum, or stainless-steel enclosure



SIPART PS2 (Ex d) in flameproof aluminum or 316L stainless-steel enclosure



Positioner with various external position detection systems

- Suitable for use in extreme ambient conditions, such as vibration
- Easier access to positioner for valves at not easily accessible locations
- Position detection available as standard solution or integrated in a robust aluminum enclosure





Positioner with remote control electronics

- Suitable for use in environmental conditions with high-energy radiation
- Easier access to control electronics through control cabinet
- Distance between control electronics and valve can be up to one kilometer



Technical data	SIPART PS100	SIPART PS2
Enclosure	Aluminum, aluminum / polycarbonate	Polycarbonate, aluminum, stainless steel
Premium diagnostics	No	Yes
Modules can be retrofitted	No	Yes
Limit values	No	2 (mechanical or capacitive)
Digital input / digital output	1 DI / 1 DO	2 DI / 3 DO
External position detection	No	Yes
Communication	4-20 mA	4-20 mA, HART 7, PROFIBUS PA, FF
EX certificates	No	<ul style="list-style-type: none"> • ATEX, IEC: Ex i, ec, t, Ex d • FM, CSA: IS, NII/2, DIP, XP
Ambient air temperature	-4 to +176 °F, -20 to +80 °C	-22 to +176 °F, Option: -40 °F -30 to +80 °C, Option: -40 °C
Max. air consumption in the controlled state	0.006 scfm (0,01 Nm3/h)	0.006 scfm (0,01 Nm3/h)
SIL	No	Yes

Our portfolio has you fully covered

Siemens brings you a broad spectrum of process instrumentation, analytics, communication and automation solutions suitable for virtually every chemical application.

Flow			
Electromagnetic	Coriolis	Clamp-on ultrasonic	Vortex
			
<p>Reliable SITRANS F flowmeters are capable of meeting even the toughest challenges by monitoring gases and liquids of varying consistencies.</p>			

Pressure		Temperature	
Transmitters	Remote seals	Sensors	Transmitters
			
<p>Siemens offers a wide range of accurate, robust and intuitive devices for all types of pressure measurement.</p>		<p>SITRANS T temperature devices are designed to support all common RTDs, thermocouples, resistance and millivolt sensors.</p>	

Level			
Radar	Guided wave radar	Point level	Ultrasonic
			
<p>Whether you need to detect liquids, slurries, bulk solids, foam or interfaces, Siemens provides the right level measuring technology for all types of applications.</p>			

Positioner

<p>The SIPART PS2 electropneumatic valve positioner offers extensive diagnostic functions and minimal loss of process air.</p>

Weighing		
Static weighing	Dynamic weighing	Integrators
		
<p>SIWAREX PLC-based weighing electronics allow for direct integration into the Siemens range of PLCs, providing unparalleled flexibility and ease of use.</p>		

Process protection

Acoustic sensors	Motion sensors
	
<p>Siemens non-contacting sensors for process protection comprise a highly reliable early warning system.</p>	

Gas analysis

Continuous gas analytics

<p>Gas analysis instruments from Siemens cover a wide range of measuring tasks and are the ideal solution for process and quality control.</p>

Industrial communication

Switching and routing	Wireless communication	Remote communication	Network security
			
<p>Siemens industrial-grade communication solutions enable secure, reliable and high-availability network connectivity in harsh environments.</p>			

Monitoring Apps

SITRANS mobile IQ app	SITRANS Store IQ	Valve Monitoring
		
<p>Siemens offers today's facility operators and managers the ability to remotely monitor the activity and health of process equipment, regardless of whether it's local to the plant or in the most remote of locations.</p>		

Automation and engineering solutions

Process control systems	Plant engineering	Simulation	Operations intelligence
			
<p>To maximize efficiency and competitiveness in an increasingly digitalized world, Siemens provides innovative solutions for process control, plant engineering, simulation and operations intelligence.</p>			

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