

SIEMENS

Ingenuity for life



Get to know
our positioner!



One that masters
everything: SIPART PS2

Flexibility for all challenges

[siemens.com/positioner](https://www.siemens.com/positioner)



The proven multi-talent SIPART PS2

SIPART PS2 is currently the most widely used positioner for linear and part-turn actuators in a wide range of process industries. The all-rounder offers comprehensive functionality and diagnostic capability, controls a wide range of valves both safely and dependably, and also optimally fulfills specific requirements.

Whether for reliable control of actuators in the chemical or oil and gas sector or for precise control of valves in the pharmaceutical or food industry: SIPART PS2 provides the right solution for every valve.

Another point in favor of our positioner is the low consumption of compressed air. SIPART PS2 minimizes it as well as the CO₂ emissions that are caused by the compressors. This means our positioner offers savings of up to 90 percent compared to conventional devices.

> More information:
siemens.com/pia-portal



The Siemens promise:

- **Quality:** Production and development based on the latest standards
- **Know-how:** 20 years of experience in process instrumentation
- **Control quality:** Precise control with a large variety of valves
- **Ruggedness:** Enclosures that are matched to the specific application
- **Reliability:** Diagnostic functions providing a comprehensive view of the valve
- **Integration:** Seamless integration into control systems
- **Service:** Modular design of device for easier service

Product highlights

Flexible in any position

SIPART PS2 is the most widely used positioner for linear and part-turn actuators as well as for single-acting and double-acting actuators in all process industries.

From "mini valves" with very small strokes to steam valves with large strokes, the intelligent positioner masters any task without problems. In addition to linear actuators, SIPART PS2 also controls part-turn actuators with a rotary angle range from 30° to 100°. For easier mounting of the SIPART PS2 to standardized or manufacturer-specific actuators, you can choose from 400 mounting kits. You start initialization with three push buttons and a display, and commissioning is complete within a few minutes.

Protected against hostile environments

In an optional Makrolon, aluminum or stainless steel enclosure, SIPART PS2 is best equipped to withstand any conditions. With degree of protection IP66 or NEMA 4X (optional IPX9K) as standard, it withstands even the most hostile environmental conditions. Thanks to its large number of international certificates, the positioner is well-equipped for use in hazardous, maritime applications. The flameproof version can be conveniently operated thanks to a display and push buttons that are protected by bulletproof glass. In addition to the explosion-proof device, SIPART PS2 is also available as intrinsically safe version.

Extremely communicative

In dialogue with host systems, the SIPART PS2 demonstrates its communicative side. It can be integrated in the communication landscape by means of the PROFIBUS PA, Foundation Fieldbus or HART protocols. SIPART PS2 supports both commonly used parameter assignment concepts, EDD (Enhanced Device Description) and DTM (Device Type Manager). It also stands out through its proven interoperability – with the Siemens process control system SIMATIC PCS 7 and SIMATIC PDM, and with process control systems and asset management systems from other vendors. Plant operators therefore benefit from the complete diagnostics range of the positioner.

Always the right diagnostics

During operation or in the workshop – SIPART PS2 offers the correct, standard diagnostic functions for each operating state. During operation, our positioner monitors the following properties of the valve, among other things: pneumatic leaks, number of strokes, static friction of the stuffing box or wear of the valve seat and reports this according to NE107. With a regular partial stroke test, the SIPART PS2 ensures that ESD (Emergency Shut Down) valves and other open/close valves remain free to move in emergency situations. For ongoing operation to not be affected, the timing of the PST can be set.



Product range for your application

The positioner – a multi-talent that optimally fulfills a multitude of requirements. Whether in a compact design for a wide range of standard applications or as a remote version for special applications.



Positioner in compact design

- Available with Makrolon, aluminum or stainless steel enclosure or as flameproof aluminum or stainless steel 316L version
- Different types of communication: HART, PROFIBUS PA and Foundation Fieldbus
- Comprehensive diagnostic functions: From histograms to Partial Stroke Test all the way to the Valve Performance Test
- Suitable for use in SIL2 control loops
- Optionally with "Fail in Place" function or "Fail Safe" function
- Fast control with integrated booster

> [siemens.com/positioner/compact](https://www.siemens.com/positioner/compact)

Positioner with remote position detection

- Suitable for use in extreme environmental conditions
- Non-contacting sensor (NCS): Resistant to permanent vibrations and shocks (e.g. steam hammer) as well as water (IP68)
- External position detection system: Easier access to the positioner with hard-to-reach valves
- EMC filter module: Integration of electrical actuating signals for special applications

> [siemens.com/positioner/ncs](https://www.siemens.com/positioner/ncs)

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
- Available as an mA version with three channels or as a PROFIBUS PA version with five, ten or fifteen channels
- Leakage optimized for (very) small drives

> [siemens.com/positioner/rack-unit](https://www.siemens.com/positioner/rack-unit)

Welcome to the next level

New processes always come with new requirements. SIPART PS2 meets these with the following features:

Our all-round talent

The “Fail in Place” and “Fail iSafe” functions turn our talent into a multi-talent. The “Fail in Place” function causes the valve to remain in the last position should the power supply fail. Alternatively, the “Fail Safe” function makes sure that the valve moves to the safety position. This function is even suitable for use in SIL2 measuring circuits.

Challenges even larger opponents

Our all-rounder can do even more: together with the SIPART PS2 booster, it allows high-speed control of large actuators with a Cv value of 2.0. Due to direct mounting on the positioner, the manual piping requirements are reduced to a minimum.

Compact and free of wear and tear

Upgraded positioner: In addition to an alarm module, a limit module based on switches and slot-type initiators, it now also offers a wear-free position detection module. The internal Non Contacting module (iNCS module) is ideally suited for applications with continuously high vibration impact such as marine diesel.

The complete package

Thanks to the Valve Performance Test (VPT), the maintenance requirement of the valve can be quickly assessed on site during a scheduled plant standstill. The VPT thus reduces the maintenance time. Full Stroke Test, Step Response Test and Multi-Step Response Test round off the diagnostics package.

The diagnostics cockpit enables the user to assess the status of the valve at a glance at any time.

Scan the QR code to watch the video



Technical specifications

Construction	Compact
Setpoint signal	0 / 4 – 20 mA without /with HART 7 or PROFIBUS PA 3.02/Foundation Fieldbus protocol ITK 6.0 with Link Active Scheduler (LAS) function
Range of stroke	3 to 130 mm (larger strokes on request)
Rotary angle range	30° to 100° (180° as special version)
Ambient temperature	–30 °C to +80 °C (–40 °C optional)
Required air quality	Class 2 in accordance with ISO 8573-1
Max. air bleed in settled state	< 0.036 Nm ³ /h (0.02 scfm)
Pneumatic auxiliary power	1.4 to 7 bar
Airflow rate	
– Pressurize (for Δp = 6 bar)	9.8 Nm ³ /h
– Depressurize (for Δp = 6 bar)	19.2 Nm ³ /h
– Integrated booster option	Cv 2.0
Types of protection	Ex i; Ex n; Ex ec; Ex t; Ex d; IS; NI; DIP; XP
Certificates and approvals	Explosion protection: IECEx; ATEX; FM; CSA; NEPSI; INMETRO; EAC; KCS General safety: CE; FM; UL Functional safety: SIL2 Shipbuilding: ABS; BV; GL; LR; DNV

> More information:
siemens.com/positioner

Comprehensive portfolio for all applications

Siemens process instrumentation offers a comprehensive and proven product portfolio for demanding environments.

Level



Radar



Guided radar



Ultrasound



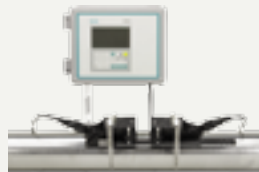
Level detection

When it comes to level measurement of liquids, sludges and bulk material, Siemens offers the right technology for continuous level measurement as well as limit detection.

Flow rate



Magnetic-inductive



Ultrasound



Coriolis



Vortex

Our flowmeters enable very precise and reliable measurement and monitoring of the flow of gas, vapor and liquids with different consistency.

Process monitoring



Acoustic sensors



Speed sensors

Positioner



Positioner

Blockages in pneumatic conveying systems can be detected with acoustic sensors. Motion sensors guarantee the set speed in mechanical conveying systems.

The electro-pneumatic positioner offers easy integration as well as comprehensive diagnostic functions and minimum consumption of process air.



Weighing technology



Conveyor scales



Load cells



PLC-based weighing electronics

The comprehensive Siemens portfolio includes conveyor scales, dosing conveyor scales, solids flowmeters and static weighing technology. In addition, our PLC-based weighing electronics system, SIWAREX, supports direct integration into Siemens automation components.



Pressure



Pressure measurement



Temperature



Sensors



Transmitters

Siemens offers a complete range of measuring instruments to measure gauge, differential and absolute pressure.

Our product line includes head-mounted, rail-mounted, and field transmitters as well as sensors.



WirelessHART



(WirelessHART) Sensor



Device adapter



Interface

With our WirelessHART solutions, users benefit not only from lower lifecycle costs but also from significant improvements in process diagnostics, productivity and security.

Additional information:
siemens.com/positioner

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in the area of process
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