

SIEMENS



Remote and Wear-Free Position Detection

Siemens SIPART PS2 Valve Positioner

Process Instrumentation

The SIPART PS2 is currently the most widely used positioner for linear and part-turn actuators in a wide range of process industries. It is highly configurable, making it a perfect fit for standard or custom applications that require flexibility and precise positioning. With that in mind, Siemens offers two unique ways of remotely detecting control valve movement and a third “wear-free” option.

usa.siemens.com/sipartps2

How can you get a valve positioner to work in excessive vibration - or other unsafe or poor conditions?



SIPART PS2 Remote Detection Solutions are designed for all types of actuators

External Position Detection System

In an industrial plant, many control valves are in very inconvenient and/or unsafe locations. This could be next to a hot boiler, on a roof top, or accessed only via a ladder. For these applications, the External Position Detection System is the answer. This system utilizes a potentiometer, which is easily installed on the valve. The valve movement is then relayed via a connector cable and a EMC filter module to the SIPART PS2 remotely mounted on a wall or pipe. This system can be used for part-turn actuators, linear actuators and even pneumatic cylinders.

Non-Contacting Sensor (NCS) – IP68

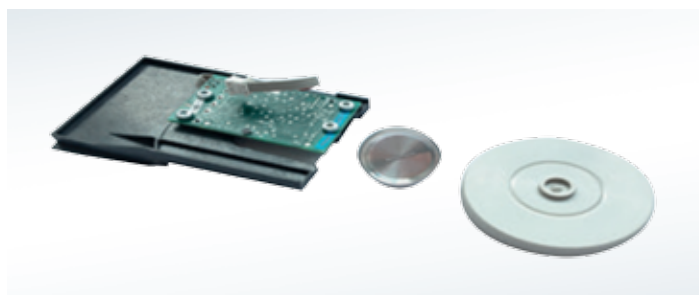
Many plant valves are susceptible to high vibrations or shock (steam hammer). Even with today's technology, a potentiometer may wear or become negatively affected by the extreme vibration throughout the valve assembly. Additionally, moving the positioner's electronics away from these types of conditions will improve their performance. The Siemens Non-Contacting Sensor (NCS) is perfect for these applications.

The NCS utilizes a GMR (giant magnetoresistance effect) sensor and a magnetic field to detect the valve movement. The position is detected via the magnetic field and relayed via a cable back to the remotely mounted SIPART PS2- providing wear-free position detection while remotely operating your valve.

GMR technology has a high signal-to-noise ratio to external magnetic fields, meaning it is uniquely suited for these types of plant control applications. Additionally, when compared to other methods, power consumption is much lower while signal level and sensitivity are both higher.

Internal Non-Contacting Sensor (iNCS)

The iNCS takes the NCS technology and packages it inside the SIPART PS2. For applications that require wear-free position detection while maintaining the standard mounting of a valve positioner, the iNCS is the answer. This is implemented by installing a small module inside of the SIPART PS2, much like our feedback module, alarm module, and mechanical limit switch module. The GMR sensor advantages remain as well as the ability to handle extreme vibration and shock.



iNCS Module

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