

Series 8900 SmartPredictor™ Positioner

Proven performers: reliable, proven valve control with flexible

Norriseal delivers robust, industry-leading, reliable valve solutions that include control valves, butterfly valves, liquid level controllers, pressure controllers, liquid level switches and gauges, regulators, and much more. The latest addition to our product family is the Series 8900 SmartPredictor™ Positioner, based on the proven Siemens SIPART PS2 Electropneumatic Valve Positioner technology. An intelligent positioner built for linear and rotary actuators, the Series 8900 SmartPredictor Positioner reduces maintenance requirements, improves diagnostics, and simplifies operation and programming.

The Series 8900 SmartPredictor Positioner can safely and reliably control any type of Norriseal valve, while performing specialized tasks with extreme precision.

Series 8900 SmartPredictor Positioner

The Series 8900 SmartPredictor Positioner technology has a 20-year track record of proven performance in the oil and gas industry. Known for its reliable and smooth sequences in a wide range of applications, the Series 8900 seamlessly integrates with Norriseal Valves to move beyond analog and pneumatic communications.

Series 8900 At A Glance

- Comes standard with degree of protection IP66 or NEMA 4X, with three options for enclosures: Makrolon, aluminum, or stainless steel
- Variants with external non-contacting travel sensors
- High flexibility in the stroke range from 0.12" to 5.12" (3 mm to 130 mm), with larger strokes available upon request
- Low-bleed construction reduces operating costs
- Communication via PROFIBUS PA, FOUNDATION Fieldbus, or HART
- Intelligent diagnostic functions
- Optional explosion-proof version available



Product highlights

Resistant to vibration

With a non-contacting sensor, the Series 8900 SmartPredictor Positioner can withstand severe operating conditions for extended periods of time, without losing reliability or precision.

User-friendly operation

With an easy-to-use, push-button display, the Series 8900 is designed for field operation. With integrated functions like position feedback and on-board limit signaling, the Series 8900 can easily be configured with its three buttons, without the need for additional equipment.

Approved for hazardous areas

The Series 8900 SmartPredictor Positioner is approved for IECEx, ATEX, FM, and CSA as an intrinsically safe (Ex ia/ib) or flameproof (Ex d) device. It is ideal for explosion-protected or maritime applications.

Adaptive learning

The Series 8900 includes an adaptive learning capability, where it learns to recognize the respective application characteristics and configures itself to meet the particular requirement as best as possible. If changes caused by wear or environmental effects occur, the device has the ability to readjust itself and transmit alarm signals through its HART, PROFIBUS PA, FOUNDATION fieldbus, or digital output communications interface.

Low-bleed construction

The Series 8900 features a very low bleed design, which helps to reduce the carbon footprint and lower the overall cost of ownership.

To compare positioner ownership costs, use the online cost of air calculator. <http://www.industry.usa.siemens.com/automation/us/en/process-instrumentation-and-analytics/process-instrumentation/valvepositioners-accessories/sipart-ps2-positioner/pages/cost-of-air.aspx>

Easy commissioning and startup

Because the Series 8900 was designed with the field engineer in mind, it features push-button operation, an easy-to-read display, and an adjustable slipping clutch for fast commissioning and startup that takes just minutes.

Withstands hostile environments

The Series 8900 can withstand corrosive or hostile environments with its optional Makrolon, aluminum, or stainless-steel enclosures. Complying with IP66 and NEMA 4X standards, it is approved for the most difficult conditions on the planet.

Flexible communications protocols

The Series 8900 integrates seamlessly into intelligent networks, with its ability to communicate via PROFIBUS PA, FOUNDATION fieldbus, or HART. With the HART and PROFIBUS options, SIMATIC PDM can be used to display and document trends, histograms, and commissioning and operating data.

Optional explosion-proof housing

The Series 8900 offers an optional explosion-proof enclosure, which features a flap with a bullet-proof glass pane. This allows the display to be read at all times, even with the flap down. Operation is possible with the flap open, for convenient maintenance.



The Series 8900 SmartPredictor Positioner offers standard comprehensive diagnostic functions, which continuously check the actuator and valve, to provide advanced failure warnings during operations.

Specifications

TECHNICAL SPECIFICATIONS	
Setpoint signal	0/4 – 20/mA with/without HART signal or PROFIBUS PA/FOUNDATION Fieldbus protocol
Stroke range	0.12" to 5.12" (3 mm to 130 mm) (larger strokes available on request)
Rotary angle range	30° to 100°
Auxiliary power –Pneumatic –Electric Load voltage	20 psi to 101 psi (1.4 to 7 bar) 4 to 20/mA (two-wire system) or 18 to 30 V (four-wire system) or bus infeed 10.5 mA with PROFIBUS / FOUNDATION Fieldbus 6.36 V (non-Ex without HART)
Airflow Supply to actuator (for rp = 6 bar) Actuator to exhaust (for rp = 6 bar)	5.76 scfm (9.8 Nm ³ /h) 11.30 scfm (19.2 Nm ³ /h)
Bleed rate (Controlled State)	.0035 scfm (6 · 10 ⁻⁴ Nm ³ /h)
Required air quality	Class 2 in accordance with ISO 8573-1
Binary inputs	One digital input for floating contact
Explosion protection	II 2 G Ex d IIC T6 Gb (explosion-proof enclosure "d") II 2 G Ex ia IIC T6 / T4 Gb (intrinsic safety "ia") II 2 D Ex ia IIIC 110 °C Db (intrinsic safety "ia") II 3 G Ex ic IIC T6 / T4 Gc (intrinsic safety "ic") II 3 G Ex nA IIC T6 / T4 Gc (non-sparking, energy-limited "nA") II 3 D Ex tb IIIC T100 °C Dc IP66 (dust, protected by enclosure "t")
Additional approvals	FM/CSA (with barrier) Class I, Div 1, Gr. A, B, C, D and Zone 1, Area Ex ia/ib IIC FM/CSA (without barrier); Class I, Div 2, Gr. A, B, C, D. SIL 2 in accordance with IEC 61508/ IEC 61551 Others on request
Ambient temperature	–22° F to +176° F (–30° C to +80° C)
Accessories / Options (can be retrofitted)	Limit module: – Electrical alarm outputs including fault output and – Binary input (floating contact and 24V) – Slot initiators including fault output – Limit value contacts including fault output Mounting kits Pressure gauge block Solenoid valve block Position feedback, 4-20 mA External position sensor, also non-contacting

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NRS_RFQ@championx.com



NorrisealWellmark.com

Norriseal-Wellmark | 11122 W Little York Rd | Houston, TX 77041

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