

**SAMSON**

**SAMSON** SAMSOMATIC

**SIL**

**Ex d / Ex i**

## Limit Switches and Solenoid Valves



# Technology for The Future



## From the idea to the fully fledged product

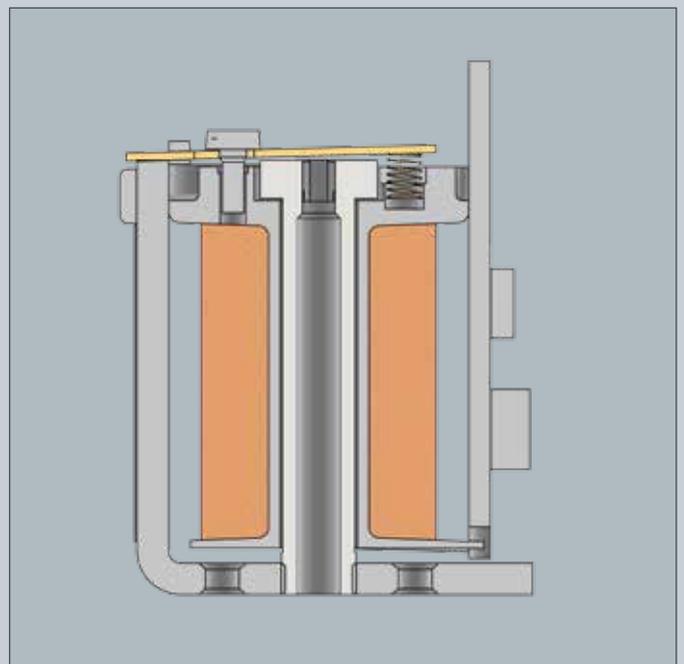
High reliability and constant plant availability are not contradictory where SAMSOMATIC solenoid valves and limit switches are concerned. The intrinsically safe and flameproof versions have been added to our proven product line to provide a wide variety of tailor-made versions for any application.

The electropneumatic binary converter, which has proven reliable in service a million times over, works together with a pneumatic booster and forms the heart of the solenoid valves. Due to their minimal power consumption, the solenoid valves can even be actuated using intrinsically safe fieldbus systems. This efficient power usage also reduces the amount of self-generated heat and cuts cost for an emergency power supply.



The solenoid valves and limit switches are subjected to high quality demands and are suitable for use in safety-instrumented systems.

Different switching functions, flow rates, and connection types allow the devices to be tailor-made to meet all customer requirements.



# Type 3963 Solenoid Valve

# Exi



<b>Nominal signal</b>	6, 12, 24 V DC or 24, 48, 115, 230 V AC
<b>Power consumption</b>	6 to 27 mW or 0.04 to 0.46 VA
<b>Switching function</b>	3/2-, 5/2-, 5/3- or 6/2-way function
<b>K<sub>Vs</sub> coefficient</b>	0.16 to 4.3
<b>Material</b>	Polyamide (pilot valve), aluminum or stainless steel (booster valve)
<b>Attachment</b>	Rail or wall mounting, direct attachment to linear actuators using a connection block, attachment to linear actuators with NAMUR rib according to IEC 60534-6, attachment to rotary actuators with NAMUR interface according to VDI/VDE 3845

- Type of protection: intrinsic safety
- SIL safety function according to IEC 61508
- Certification for safety-related shut-off equipment
- Control of linear and rotary actuators



# Type 3967 Solenoid Valve

Exi



**Nominal signal** 6, 12, 24 V DC

**Power consumption** 6 to 27 mW

**Switching function** 3/2-, 5/2- or 5/3-way function

**K<sub>Vs</sub> coefficient** 0.32 to 4.3

**Material** Polyamide (pilot valve), aluminum or stainless steel (booster valve)

**Attachment** Direct attachment to linear actuators using a connection block, attachment to linear actuators with NAMUR rib according to IEC 60534-6, attachment to rotary actuators with NAMUR interface according to VDI/VDE 3845

- Type of protection: intrinsic safety
- SIL safety function according to IEC 61508
- Control of linear and rotary actuators



# Type 3966 Solenoid Valve

## Exi/Exd



<b>Nominal signal</b>	6, 12, 24, 120 V DC or 24, 120, 240 V AC
<b>Power consumption</b>	6 to 209 mW or 0.04 to 0.46 VA
<b>Switching function</b>	3/2-way function
<b>K<sub>Vs</sub> coefficient</b>	0.9
<b>Material</b>	Aluminum or stainless steel
<b>Attachment</b>	Direct attachment to linear actuators using a connection block, attachment to linear actuators with NAMUR rib according to IEC 60534-6, attachment to rotary actuators with NAMUR interface according to VDI/VDE 3845

- Type of protection: flameproof enclosure
- Type of protection: intrinsic safety
- Control of linear and rotary actuators



# Type 3969 Solenoid Valve

# Exi



**Nominal signal** 14 to 28 V DC

**Power consumption** <60 mW at +20°C

**Switching function** 3/2-way function

**K<sub>Vs</sub> coefficient** 0.3

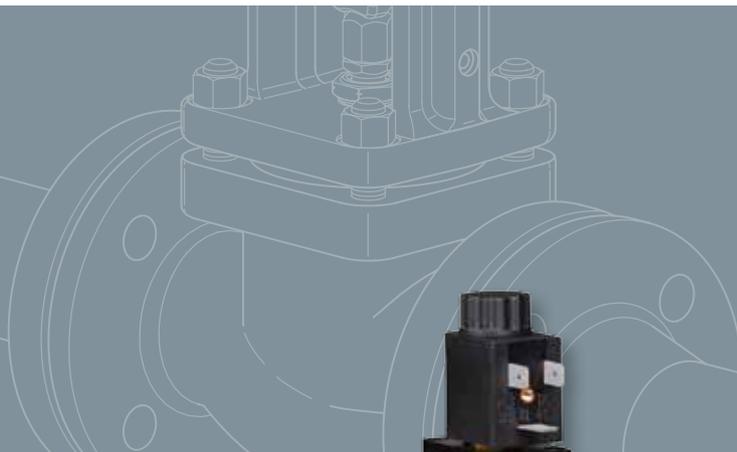
**Material** Aluminum

**Attachment** Direct attachment to linear actuators using a connection block, attachment to linear actuators with NAMUR rib according to IEC 60534-6, attachment to rotary actuators with NAMUR interface according to VDI/VDE 3845

- No air consumption
- Type of protection: intrinsic safety
- SIL safety function according to IEC 61508
- Control of linear and rotary actuators



# Type 3930 Solenoid Valve



**Nominal signal** 24 V DC or 230 V AC

**Power consumption** 3 W or 5 VA

**Switching function** 3/2 or 5/2-way function

**K<sub>Vs</sub> coefficient** 0.85

**Material** Polyamide (solenoid) and aluminum (valve body)

**Attachment** Attachment to rotary actuators with NAMUR interface according to VDI/VDE 3845

- Without explosion protection
- Control of linear and rotary actuators



# Type 3941 Solenoid Valve



**Nominal signal** 24 V DC or 230 V AC

**Power consumption** 10 W or 21.5/13.5 VA

**Switching function** 2/2 or 3/2-way function

**K<sub>Vs</sub> coefficient** 0.16

**Material** Polyamide (solenoid) and stainless steel 1.4305 (valve body)

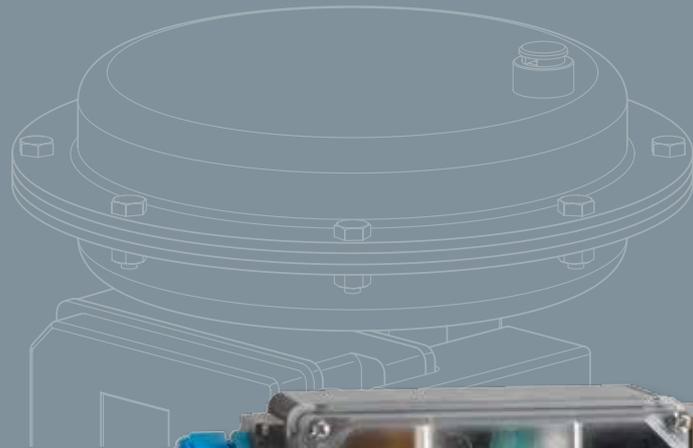
**Attachment** Threaded connection for pipe mounting

- Without explosion protection
- Control of linear and rotary actuators



# Type 3776 Limit Switch

# Exi



<b>Limit switches</b>	Max. 6 inductive proximity sensors or electric microswitches
<b>Nominal signal</b>	<b>Solenoid valve:</b> 6/12/24 V DC or 24/115/230 V AC
<b>Power consumption</b>	<b>Solenoid valve:</b> 6 to 27 mW or 0.04 to 0.46 VA
<b>Switching function</b>	<b>Solenoid valve:</b> 3/2-, 5/2- or 5/3-way function
<b>K<sub>VS</sub> coefficient</b>	0.2 to 0.3
<b>Material</b>	Polyamide (enclosure), aluminum (booster valve)
<b>Attachment</b>	Attachment to linear actuators, attachment to rotary actuators with interface according to VDI/VDE 3845

- Type of protection: intrinsic safety
- SIL safety function according to IEC 61508
- Monitoring and control of linear and rotary actuators
- Adjustable limit contacts
- Integrated solenoid valve



# Type 4747 Limit Switch

# Exi/Exd

**Limit switches** Max. 2 inductive proximity sensors or electric microswitches

**Material** Aluminum or stainless steel

**Attachment** Direct attachment to linear actuators, attachment to linear actuators with NAMUR rib according to IEC 60534-6, attachment to rotary actuators with interface according to VDI/VDE 3845

- Type of protection: flameproof enclosure
- Type of protection: intrinsic safety
- Monitoring of linear and rotary actuators
- Adjustable limit contacts



SAMSON

**SAMSON** SAMSOMATIC

## Limit Switches and Solenoid Valves



● Production sites ● Subsidiaries

SAMSOMATIC GMBH  
Weismuellerstrasse 20-22 · 60314 Frankfurt am Main, Germany  
Phone: +49 69 4009-0 · Fax: +49 69 4009-1644  
E-mail: [samsomatic@samsomatic.de](mailto:samsomatic@samsomatic.de) · Internet: [www.samsomatic.de](http://www.samsomatic.de)

SMART IN FLOW CONTROL.