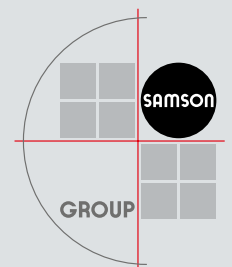


Electronic Limit Switches for On/off Valves

samson



Where Innovation is Tradition



Benefits

- High level of accuracy and reliability
- Easy mounting on the actuator
- Compact, rugged design
- Easy operation on site or from a computer
- Integrated diagnostics with partial stroke testing (PST)



- **Type 3738-20**
3 limit contacts and
1 alarm contact
at NAMUR signal
(acc. to IEC 60957-5-6)
24 V solenoid valve
- **Type 3738-50**
FOUNDATION™ fieldbus
communication
Inputs and output blocks:
5 DI, 5 DO, 1 AI



Smart technology

■ Accuracy and reliability

High-precision, drift-free switching points

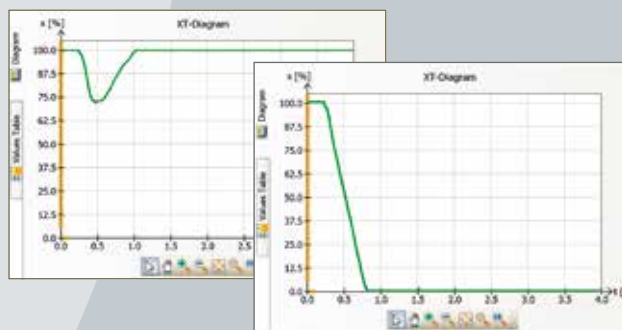
Measuring accuracy better than 1 %

Reproducible precise settings

■ Mounting

Attachment to rotary actuators according to VDI/VDE 3845, level 1 (2010) or to linear actuators

Attachment to rotary actuators according to VDI/VDE 3845, level 2 or to linear actuators



■ Design

Rugged non-contact position sensing

Air purging of the actuator's spring chamber

■ Operation

Calibration at the push of a button

On-site operation using a rotary pushbutton

Serial interface for convenient operation from a computer (SAMSON's TROVIS-VIEW software)

With eDD or DTM using FOUNDATION™ fieldbus (Type 3738-50 only)

■ Diagnostics

Logging of transit time for each valve movement

Logging of valve movements with time stamp

Partial stroke testing to exercise the valve

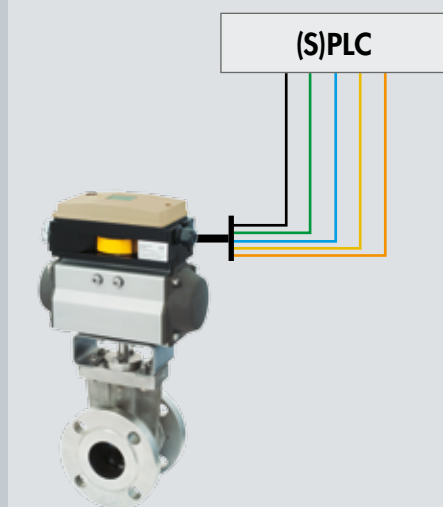


Technical data

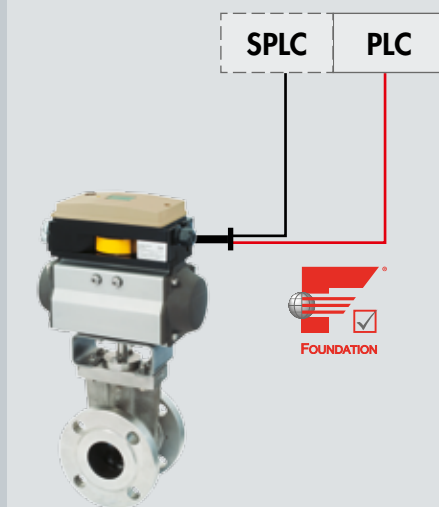
- Permissible ambient temperature $-40/-25$ to $80\text{ }^{\circ}\text{C}$
- Permissible operating angle of the rotary actuator 30° to 170°
- Degree of protection IP 66
- Explosion protection Ex ia or Ex e
- Safety certification SIL 3
- Integrated solenoid valve $K_{VS} 0.32$
- External solenoid valve for standard solenoid valves
- Power supplied by the NAMUR signal (Type 3738-20) only or by FOUNDATION™ fieldbus (Type 3738-50)

Control

Type 3738-20



Type 3738-50



- Fault alarm output
- Partial stroke test (PST) monitoring
- End position 1 (operation)
- End position 2 (fail-safe action)
- Solenoid valve 24 V

- FOUNDATION™ fieldbus (IEC 61158-2)
- Forced venting function 24 V



Mounting versions

- Version with internal solenoid valve to fit specific actuator models
- Universal version with internal solenoid valve for standard actuators
- Universal version with external solenoid valve for standard actuators



Applications



- For demanding ambient conditions, e.g. dust atmospheres or vibrations
- For safety-instrumented systems
- For plants subject to documentation requirements
- With exact switching point, e.g. for butterfly valves
- With wear detection, e.g. by comparing the test results for transit time and dead time with the valve signature
- With a low-drift and temperature-stable signal



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