Electronic Limit Switches
for On/off Valves

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

![Image of smart technology setup]
Technical data

- Permissible ambient temperature –40/–25 to 80 °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**

- (S)PLC

**Type 3738-50**

- SPLC
- PLC

- 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