



Leave Surveillance to the Top

Alfa Laval ThinkTop® Digital

Concept

The ThinkTop® is a uniform modular control unit that consists of a proven no-touch, set-and-forget sensor system with light-emitting diodes (LEDs), solenoid valves and valve control sensor board for connection to any PLC (Programming Logic Controller) system with one of the three interfaces; Digital, AS-Interface and DeviceNet. ThinkTop is offering a solution that utilizes all the features available on Alfa Laval butterfly, single-seat and Mixproof valves and is designed for use in the dairy, food and beverage, and biopharm industries; ThinkTop provides real-time information about valve operating status 24/7 while helping to improve production performance and secure traceability.

Working principle

The ThinkTop is an automated control unit that can be fitted with up to three solenoid valves and who convert the electrical PLC and sensor signals into mechanical energy to open or close the air-operated valve, using the physical stimulus of an indication pin mounted on the valve stem. ThinkTop fits onto all Alfa Laval sanitary actuators equipped with mushrooms. Installation is straightforward; no special expertise, adapters or tools are required. To initiate manual setup, simply press the push-button startup sequence. Or set up without dismantling the control head using the optional IR keypad for remote control.



TECHNICAL DATA

Communication

Interface Digital PNP/NPN
Supply voltage 24 ± 10% VDC

Sensor board

Max current consumption 45mA
Feedback signal #1 Closed valve
Feedback signal #2 Open valve
Feedback signal #3 Seat-lift 1
Feedback signal #4 Seat-lift 2
Feedback signal #5 Status
Valve tolerance band options 5
Default tolerance band ± 5 mm
Sensor accuracy ± 0.1 mm
Stroke length 0.1 - 80 mm

Solenoid valve

Max current consumption 45mA
Air supply 300-900 kPa (3-9 bar)
Type of solenoids 3/2-ways or 5/2-ways
Numbers of solenoids 0-3
Manual hold override Yes
Throttle, Air in/out 1A, 1B 0-100 %
Push-in fittings ø6 mm or 1/4"

PHYSICAL DATA

Materials

Steel parts Stainless steel and Brass
Plastic parts Blue Nylon PA 12
Seals Nitrile (NBR) rubber

Environment

Working temperature -20 °C to +85 °C
Protection class IP66 and IP67
Protection class equivalent NEMA 4.4x and 6P

Cable connection

Main cable gland PG11 (4-10 mm)
Max wire size 0.75 mm² (AWG 19)
Optional cable gland PG7 (4 - 6.8 mm)

Note!

For further information: See also ESE00353

The ThinkTop has Patented Sensor System, Registered Design and Registered Trademark owned by Alfa Laval



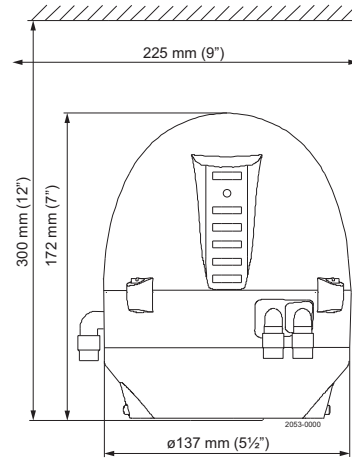
Options

- Solenoid valve configuration
- Pneumatic tubing interface

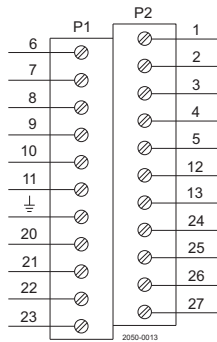
Accessories

- Remote programming (IR keypad)
- For upper seat-lift detection on Mixproof valves:
 - External PNP sensors (Refer to Brackets and Inductive Sensores)
 - Cable gland PG7
 - External sensor bracket (Refer to Brackets and Inductive Sensores)
- Various cable options
- Threaded plate for indication pin on SRC, SMP-BC and i-SSV valves
- Special indication pin for Unique SSV-LS, Unique SSV High Pressure valves
- Adaptor for Unique SSSV valves

Dimensions



Electrical connection



| | | | |
|-------|----------------------|----|---------------------|
| 6 | Solenoid 1 | 1 | Closed valve |
| 7 | Solenoid 2 | 2 | Open valve |
| 8 | Solenoid 3 | 3 | Seat-lift 1 |
| 9 | Supply + | 4 | Seat-lift 2 |
| 10 | Supply - | 5 | Status |
| 11 | Solenoid com | 12 | NPN/PNP Jumper |
| Earth | Earth | 13 | NPN/PNP Jumper |
| 20 | Solenoid common grey | 24 | Seat-lift 1 "upper" |
| 21 | Solenoid 1, grey | 25 | Seat-lift 2 "lower" |
| 22 | Solenoid 2, grey | 26 | Supply + |
| 23 | Solenoid 3, grey | 27 | Supply - |

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How to contact Alfa Laval

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