



Leave Surveillance to the Top

Alfa Laval ThinkTop® Basic AS-Interface

Concept

ThinkTop® Basic 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 and AS-Interface.

ThinkTop offers a solution for 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

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 Basic fits onto all Alfa Laval hygienic 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.



TECHNICAL DATA

Communication

Interface	AS-Interface v3.0, 62 node
Supply voltage	29.5V - 31.6 VDC
Slave profile v3.0	7.A.7.7
Default slave address	0

Sensor board

Max current consumption	45mA
Feedback signal #1	De-energized valve
Feedback signal #2	Energized valve
Feedback signal #5	Status
Valve tolerance band options	1
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
Push-in fittings	ø6 mm or 1/4"

PHYSICAL DATA

Materials

Steel parts	Stainless steel and Brass
Plastic parts	Black Nylon PA 6 Reinforced
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 mm ² (AWG 19)
Optional main M12 plug	2 wire (A coded)

Note!

For further information: See also ESE00356

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



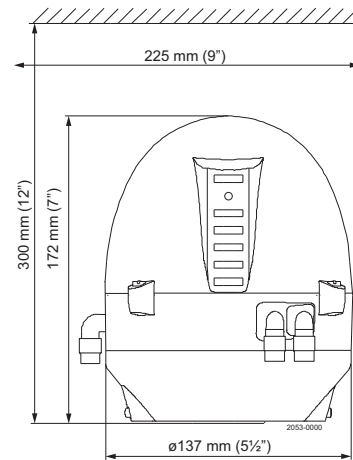
Options

- Communication interface
- Solenoid valve configuration
- Pneumatic tubing interface
- Main cable connection

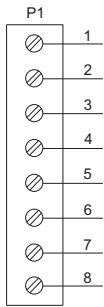
Accessories

- 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

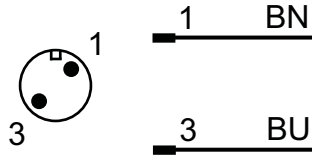


Electrical connection



- 1 ASI + (BN, brown)
- 2 ASI - (BU, blue)
- 3 PWM jumper
- 4 PWM jumper
- 5 Solenoid common, internal connection (Grey)
- 6 Solenoid # 1 internal connection (Grey)
- 7 Solenoid # 2 internal connection (Grey)
- 8 Solenoid # 3 internal connection (Grey)

M12 plug option



AS-Interface bits assignment

For AS-Interface version with 62 node, the following bit assignment can be used

DI0	Feedback #1 De-Energized valve
DI1	Feedback #2 Energized valve
DI2	Feedback #3 Not connected
DI3	Feedback #4 Status
DO0	Out #1 Not Connected
DO1	Out #2 Solenoid valve 1
DO2	Out #3 Solenoid valve 2
DO3	Out #4 Solenoid valve 3

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How to contact Alfa Laval

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