



# ThinkTop® Basic

ThinkTop® Basic Digital 10-30 VDC PNP/NPN

## Concept

The ThinkTop Basic is designed to ensure optimum valve control in conjunction with Alfa Laval sanitary butterfly, single-seat and Mixproof valves and it is compatible with all major PLC systems (Programmable Logic Controller) with a digital PNP/NPN interface. It is for use in food, dairy and brewery installations and in biopharmaceutical applications. The ThinkTop Basic fits all air operated valves from Alfa Laval

## Working principle

The ThinkTop Basic is a basic control head including sensor board and solenoid valves to control processing valves. It is used to control and supervise pneumatic valves and is mounted on top of the valve. It receives signals from a PLC to control the solenoid valve and it sends the valve status feedback signals back to the PLC. To adapt the sensor board to the specific valve, the users make a simple set-up by using local keys.



## TECHNICAL DATA

### Communication

Interface . . . . . Digital  
Supply voltage . . . . . 10-30 VDC

### Sensor board

Power supply . . . . . 24 VDC, 1 W  
Feedback signal #1 . . . . . De-energized valve  
Feedback signal #2 . . . . . Energized valve  
Preset tolerance band . . . . . ± 5 mm  
Sensor accuracy . . . . . ± 0.1 mm  
Stroke length . . . . . 0.1 - 80 mm

### Solenoid valve

Supply voltage . . . . . 24 VDC ± 10%, 1 W  
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

Plastic parts . . . . . Black Nylon PA 6  
Steel parts . . . . . 1.4301 (304) and 1.4404 (316)  
Seals . . . . . Nitrile (NBR) rubber

### Environment

Working temperature . . . . . -20°C to +85°C  
Protection class . . . . . IP66 and IP67

### Cable connection

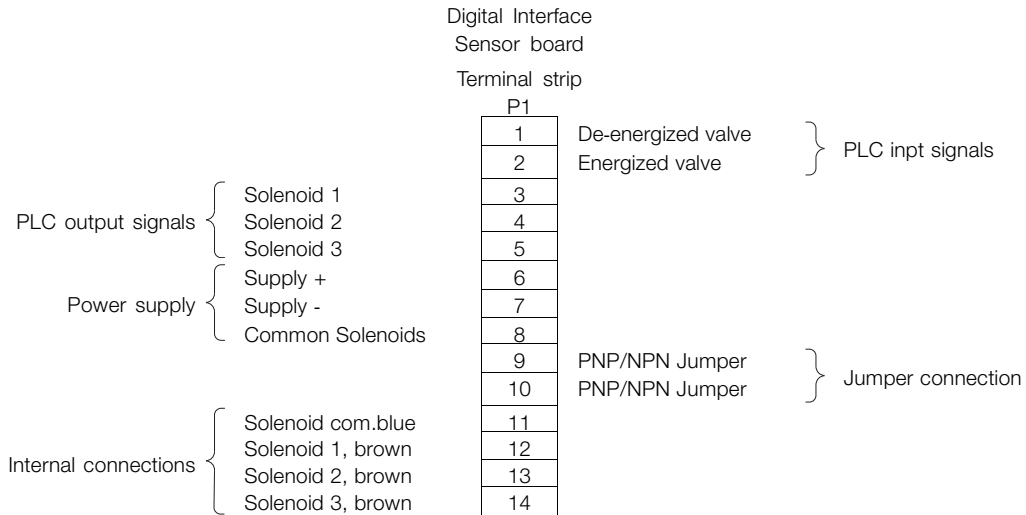
Main cable gland . . . . . PG11 (ø4 - ø10 mm)  
Max wire diameter . . . . . 0.75 mm2 (AWG 20)



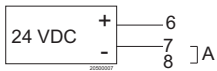
## Typical Power Consumption ThinkTop Basic

Test conditions = One ThinkTop Basic connected with 1 feedback active (on) and		
No solenoid valve on	Supply voltage 24 VDC	30 mA
1 solenoid valve active	Supply voltage 24 VDC	75 mA
2 solenoid valves active	Supply voltage 24 VDC	120 mA
3 solenoid valves active	Supply voltage 24 VDC	165 mA

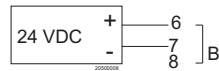
## Electrical connection



## Example of connecting power supplie

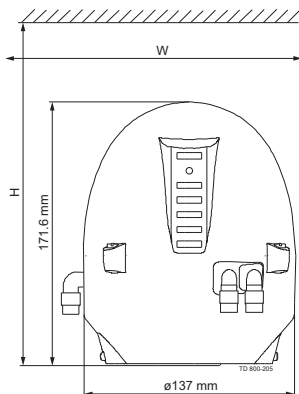


A. Jumper if positive activation of solenoids



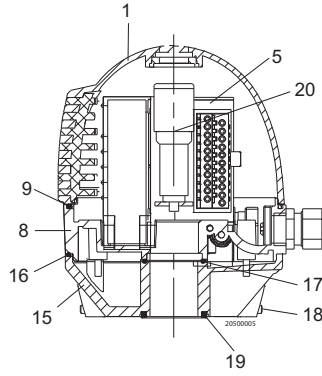
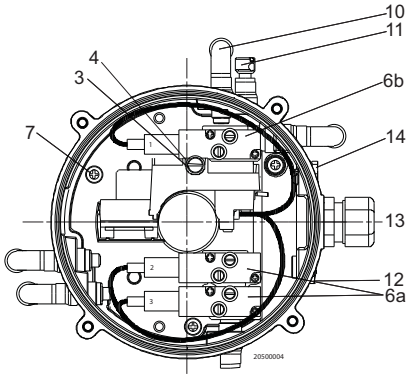
B. Jumper if negative activation of solenoids

## Dimensions



Note! This is the basic design. Recommended clearance around the ThinkTop		
Valve Type	W	H
Unique SSV NC	225	250
SMP-SC/-BC/-TO	225	250
Unique Mixproof	225	250
MH	225	250
SBV	225	250
Unique SSV NO	225	320
LKLA-T	225	300

## Basic design



1. Shell
2. N/A
3. Screw
4. Washer
5. Sensor board
6. Solenoid valve\*
7. PT screw
8. Base
9. Special X-ring, grey
10. Air fittings
11. Blow-off valve
12. Thread plug, PG7
13. Cable gland, PG11
14. Gore Vent. membrane
15. Adapter
16. Special X-ring, black
17. O-ring
18. Allen screw
19. Special X-ring
20. Indication pin

\* 6a: Solenoid valve (3/2)

\* 6b: Solenoid valve (3/2 or 5/2).

## Accessories

- Main cable gland PG11

## Ordering

Please state the following when ordering:

- Digital 10-30 VDC PNP/NPN
- Number of solenoid valves (0-3).
- Type of solenoid valves (3/2 or 5/2).
- Push-in fittings  $\varnothing 6$  mm or 1/4"
- Please state if for series 700 valves.

- Special indication pin; 9613-1581-01 For Unique SSV-LS valves
- Special indication pin; 9612-6370-01 For SRC-LS Stop valve size 63.5-101.6 mm/DN 65 - 100
- Special indication pin; 9613-1581-01 For Unique SSV High Pressure valve size 76.1-101.6 mm/DN 80-100

## Note!

For further information: See also ESE000225

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



Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval Corporate AB.

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