



Alfa Laval IndiTop Digital

Visual indication of main valve position and valve sensing for fluid handling in hygienic applications

Introduction

The Alfa Laval IndiTop is a digital valve indication unit that offers reliable, cost-effective operation and standard functionality for automated sensing of hygienic valves. The IndiTop provides real-time information about valve operating status 24/7 while boosting productivity and securing traceability.

Application

The IndiTop is designed to sense and indicate the fluid handling process in hygienic applications across the dairy, food, beverage, biotechnology, pharmaceutical and many other industries.

Benefits

- Reliable and accurate valve sensing
- Proven and inherently safe design
- Streamlined and compact design
- Watertight design
- Easy to operate

Standard design

The IndiTop valve sensing unit consists of a proven no-touch, set-and-forget sensor system with light-emitting diodes (LEDs) and an encapsulated cable for connection to any programmable logic controller (PLC) system with a digital interface. It fits on all Alfa Laval hygienic valves; no adapter is required.

Installation is straightforward. No special expertise or tools are required. To initiate manual setup, simply press the keypad pushbuttons to startup sequence. Or set up the indication unit without the keypad using the optional remote-control wire function in combination with the PLC system.

Working principle

The Alfa Laval IndiTop is an automated indication unit that does not require the use of any solenoid valve. It transmits the status and condition of the valve position to any PLC system using one of two electrical feedback signals—either DC/AC or PNP/NPN. LEDs display the current main valve position and on/off power status at all times.

The sensor system accurately detects valve stem movement, the position of the valve at any given time, with an accuracy of ± 1 mm through the use of microchip sensors.

To locate the current valve position, sensor chips inside the sensor board calculate the angle between the axial magnetic field produced by an indication pin mounted on the valve stem.



Each indication unit fits all Alfa Laval hygienic valves and provides a tolerance band for valves to prevent product failure. This indication unit also eliminates the need to readjust the sensors and boosts productivity.

LEDs conveniently display the main valve positions, setup and local fault indication on the indication unit.

Certificates



TECHNICAL DATA

Communication	
Interface:	Digital PNP/NPN
Supply voltage:	8-30 VDC/VAC
Sensor board	
Max current consumption:	45mA
Feedback signal #1:	De-energized valve
Feedback signal #2:	Energized valve
Valve tolerance band options:	1
Default tolerance band:	± 5 mm
Sensor accuracy:	± 1 mm
Stroke length	0.1 - 80 mm

PHYSICAL DATA

Materials	
Steel parts:	Stainless steel and Brass
Plastic parts:	Black Nylon PA 6, SEBS and POM
Environment	
Working temperature:	-20 °C to +85 °C
Protection class:	IP66 and IP67
Cable connection	
5 m option:	6 wire, ø5 mm (AWG26)
10 m option	6 wire, ø5 mm (AWG26)
0,5 m with plug option:	M12 plug, incl. M12 socket

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

Options

- Cable configuration

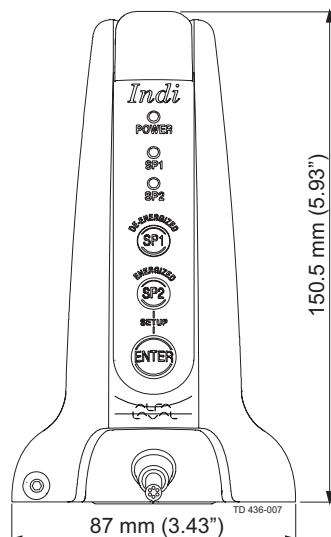
Accessories

- Threaded plate for indication pin on SRC, SMP-BC and i-SSV valves
- Adaptor for Unique SSSV valves

Compatible actuators

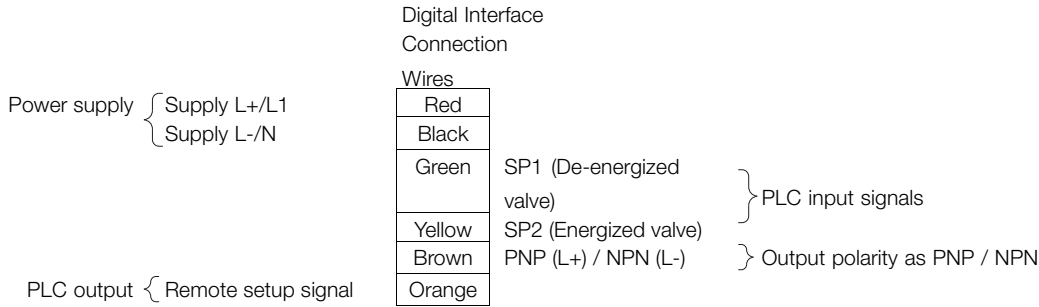
SBV	Yes	Unique SSV	Yes
Koltek	Yes	Unique SSV aseptic	Yes
LKLA-T	Yes	Unique SSV long stroke	No
ARC	Yes	SMP valves	Yes
SRC	Yes	Unique Mixproof (U/L seat lift)	No
SRC long stroke	No		

Dimensions (mm)

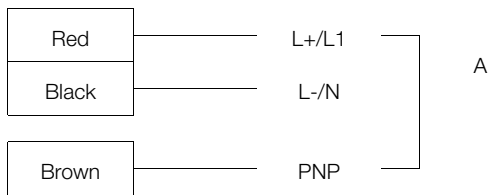


Electrical connection

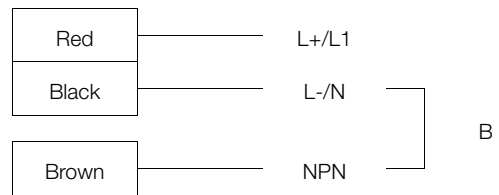
The fixed cable consists of 6 wires. For standard 2 feedbacks not using the remote setup features only 4 wires need to be connected to external systems (Red/Black/Green/Yellow). Brown is always connected to either Red (PNP) or Black (NPN) depending on whether PNP or NPN is required. The orange wire must be connected to Red if the remote setup feature is not used.



Connecting as PNP



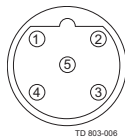
Connecting as NPN



- A. Brown connected with Red wire on external screw terminals if PNP polarity
- B. Brown connected with Black wire on external screw terminals if NPN polarity

The fixed cable consists of 6 wires. For standard 2 feedback not using the remote setup feature only 4 wires need to be connected to external systems (Red/Black/Green/Yellow). Brown is always connected to either Red (PNP) or Black (NPN) depending on whether PNP or NPN is required. The orange wire must be connected to Red if the remote setup feature is not used.

Cable wire connections	
Red	L+/L1
Black	L-/N
Green	SP1 (De-energized valve)
Yellow	SP2 (Energized valve)
Brown	PNP (L+) / NPN (L-) Remote setup signal
Orange	If not used - connect to L+/L1



M12 plug - PIN connections			
PIN 1	Black	L-/N	
PIN 2	Yellow	SP2 (Energized valve)	
PIN 3	Green	SP1 (De-energized valve)	
PIN 4	Red	L+/L1, 8-30V AC/DC	
M12 Plug		PNP (L+) PIN 4	
Internal wire connections	Brown	NPN (L-) PIN 1	
PIN 5	Orange	Remote setup signal	
		If not used - connect to L+/L1	

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries
are continually updated on our website.
Please visit www.alfalaval.com to
access the information direct.