



ESE00163EN 2006-06  
9611-99-4624  
Alfa Laval Kolding A/S, www.alfalaval.com

### 1. Mounting Instructions

Fix the magnet on top of the actuator



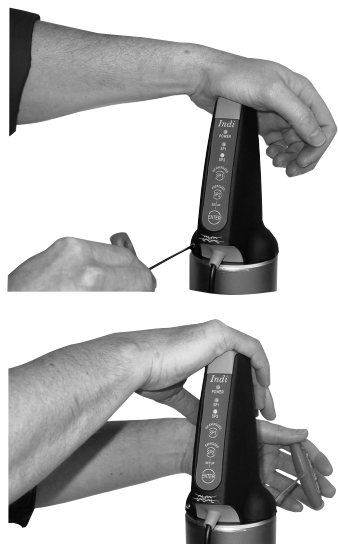
### 2. Mounting Instructions

Fit **IndiTop** over the magnet and the "mushrooms" - front opposite air fitting



### 3. Mounting Instructions

Carefully fix **IndiTop** with the two allen screws (max. torque 2,5 Nm), while pressing down.



### 4. Mounting Instructions

Connect wires as below:

- Red: +/L1 (≈), 8-30V DC/AC
- Black: -/N (≈)
- Green: SP1 (De-energized)
- Yellow: SP2 (Energized)
- Brown: PNP (+ or L1)/NPN (- or N)
- Orange: Remote setup bit (**if not used, connect to +/L1**)

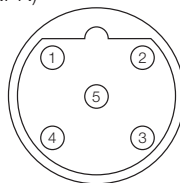
**Note:**

Switch between PNP/NPN by connecting the brown wire to either +/L1 (PNP) or -/N (NPN)

**Plug Version:**

Pin connections

- 1: -/N (≈)
- 2: SP2 (Energized)
- 3: SP1 (De-energized)
- 4: +/L1 (≈), 8-30V DC/AC
- 5: Remote setup bit (**if not used, connect to +/L1 (pin4)**)



### 1. Setting up **IndiTop** (push button)

To enter SETUP press and hold "SP2" + "Enter" until the blue LED starts to flash (3 seconds)



### 2. Setting up **IndiTop** (push button)

Clear previous saved positions by pressing "Enter" until all the LED's have turned ON in a sequence (blue-green-yellow) and flashed once (3 seconds)



### 3. Setting up **IndiTop** (push button)

De-energize the valve and save the 1<sup>st</sup> Set Point "SP1" (de-energized) by pressing the "SP1" button until "SP1" LED becomes steady ON (3 seconds)

Set point 1 (SP1) is intended to be the return position of the valve in case of a power breakdown, i.e. **de-energized**.



### 4. Setting up **IndiTop** (push button)

Energize the valve and save the 2<sup>nd</sup> Set Point "SP2" (energized) by pressing the "SP2" button until "SP2" LED becomes steady ON (3 seconds)

Set point 2 (SP2) is intended to be the opposite of SP1, i.e. **energized**.



### 5. Setting up **IndiTop** (push button)

To exit SETUP press and hold "SP2" + "Enter" until the blue LED becomes steady (3 seconds)



### 6. Setting up **IndiTop** (push button)

Verify the saved positions by energizing/de-energizing the valve and see if the correct LED is lit (SP1 = de-energized, SP2 = energized)

### 7. Setting up **IndiTop** (Remote)

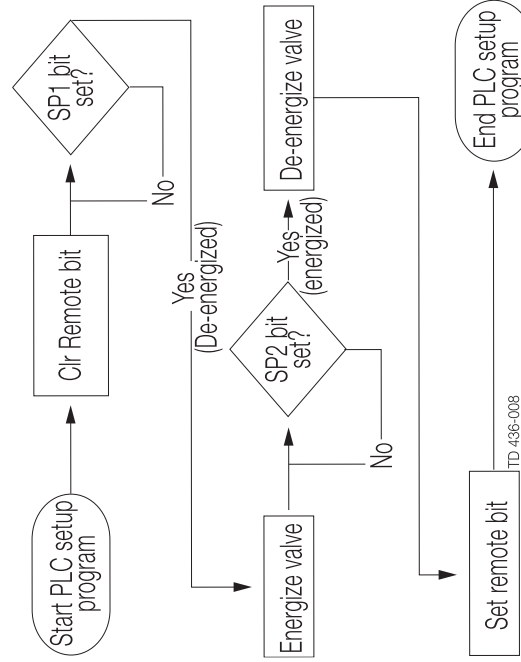
The sequence in the flow chart shown must be followed in the programming to do a successful remote setup.

#### Note 1

The remote setup can be done in two ways: Either by a simple PLC program or by manual bit (tag) control. In both cases, the flow chart must be followed to ensure the right feedback.

#### Note 2

The "Remote Setup Bit" must always be connected to +L1 if the remote setup feature is not used.



TD 436-008

### Technical Data

**Protection Class**  
IP66/67

### Power Supply

IndiTop is designed to be a part of the PLC's Input/Output (I/O) system. It should be supplied from the same protected power supply as the other I/O devices. The unit is reverse polarity and short circuit protected. The power supply must meet the requirements of EN 61131-2.

Supply voltage: .....8 - 30 V DC/AC  
 Supply voltage nominal: .....24 V DC/AC (RMS) (-15%/+20% as per EN 61131-2:2003)  
 Max. ripple: .....5% of nominal supply voltage  
 Supply voltage absolute max: .....30 V DC/AC  
 Supply voltage absolute min: .....8 V DC/AC  
 Supply current\*): .....Max. 45 mA

\*) The initial current during power-on is higher. The actual shape of the current pulse depends on the power supply used. Typical values are 150mA RMS during 13 ms (regulated PS) to 360 mA RMS during 8 ms (unregulated PS).

The fulfilling of the UL requirements in UL508 requires that the unit is supplied by an isolating source complying with the requirements for class 2 power units (UL1310) or class 2 and 3 transformers (UL1585).

### Feedback Signals

Output signals from the sensor unit to the connected digital interface (PLC).

Nominal voltage: ..... Same as supply voltage.  
 Load current: ..... 50 mA typically, 100 mA max.  
 Voltage drop: ..... Typically 3 V at 100 mA