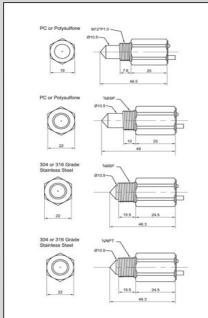
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## Optical Level Switches

#### Dimensions



## Operational principle

An optical level switch works by emitting a beam of infrared light within a prism and measuring the amount of light received. When the measured fluid reaches the sensor the amount of emitted light received drops thus triggering the contacts. As the sensor is detecting the state between material covering or not covering the prism it can be used to detect the presence or absence of fluid thus preventing damage to pumps.

The compact unit houses the infrared transmitter, the prism, the receiver and the electronics, there is also an external LED indicator to show the condition of the switch. The sensor requires a power supply of between 10-28 Volts Dc. The benefit of the modern optical sensor is that there are no moving parts that can retain material and get clogged up or damaged, simply fit and forget.

For ordering information please refer to the part number breakdown on the reverse of this brochure.

## **Applications**

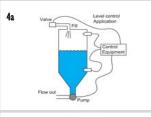
## Liquid Level Control

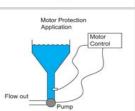
In fig 4a two optical switches are installed individually in the upper and lower level of the tank.

When liquid rises to cover the upper optical switch it will trigger the solenoid valve to close. When the liquid level drops to the lower level the optical switch reopens the solenoid to refill the tank.

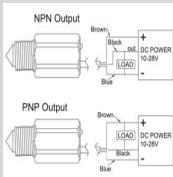
## **Motor protection**

In Fig 4b an optical switch is installed in the lower level of the tank which will cut the power to the pump thus protecting it from damage.





## Wiring







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#### Order Information

Example: OPT-PC-AR-I OPT-\_ \_ - \_ \_ - \_

### Housing Material

PC = Polycarbonate (Standard)

PS = Polysulfone

A2 = 304 Grade Stainless Steel

A4= 316 Grade Stainless Steel

## Connection Thread

AR= G 3/8" (BSP)

AU = 3/8 NPT (SS304 & SS316 only)

M2= M12 x 1.0 (Polycarbonate & Polysulfone only)

### Output

I = PNP NC

2= PNP NO

3= NPN NC

4= NPN NO

\*NO: Wet, In liquid NC: Dry, out of liquid

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# **Optical Level Switches**

