



Mobrey™ 003

Ultrasonic Liquid Level Switch with Dual Thread Mounting



Features

/ 1" or 3/4" threaded mounting

/ Relay or Transistor output

/ 24V AC or DC powered

/ Corrosion resistant

PPS construction

/ Small in-tank dimensions

/ No moving parts

Description:

The moulded body contains two piezo-electric crystals on each side of the gap at the tip of the sensor. An ultrasonic signal is transmitted from one crystal into the gap. If there is air or gas in the sensor gap, the signal is not received by the other crystal. If there is liquid present, the signal will be transmitted across the gap, and the integral electronics will switch the output circuitry to signal the presence of a liquid.

Application:

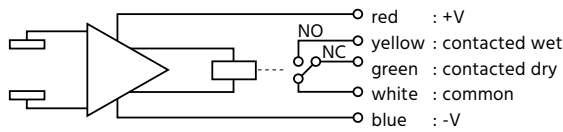
The Mobrey™ 003 is manufactured in Polyphenylene Sulphide (PPS). It is corrosion resistant in many liquids and can be used even in aggressive liquids such as acids and lyes. The sensor can be mounted in any position in a tank using the 1" or 3/4" BSPT or the 1" NPT threads available. A thread is provided on each side of a hexagonal boss to allow external or internal pole mounting of the sensor. Comprising a one piece moulded body with integral pcb, the Mobrey™ 003 switch is factory sealed and supplied with 10ft (3m) flying lead for customer connection. The Mobrey™ 003 switch meets the EU regulation, is powered with 24 VAC or DC and can be used for high or low level alarm duties to give a voltage free changeover contact or dual solid state transistor output. Typical applications are: low level alarms in header tanks, pump control duty in feeder tanks, high and low alarms in storage tanks, level and pump control in storage tanks and small or thin wall tanks.



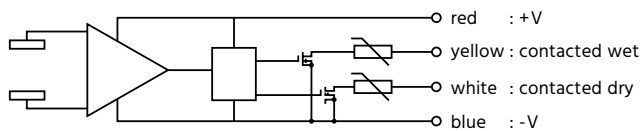
Technical Specifications:

Operating pressure /	5 bar
Operating temp. /	-20. . .+70°C (003S) -40. . .+105°C (003H)
Ambient temp. /	-20. . .+70°C (003S) -40. . .+70°C (003H)
min. liquid specific gravity /	0.50 g/cm ³
max. Viscosity /	5000 cSt. at +20°C
Switching response /	50 ms dry - wet, 0.5 s wet - dry
Hysteresis /	< 4 mm
Repeatability /	± 2 mm
Overall length /	110 mm
Length into tank /	79 mm (ext. mount)
Body diameter /	22 mm
Body material /	Polyphenylene Sulphide (PPS Ryton)
Weight /	200g

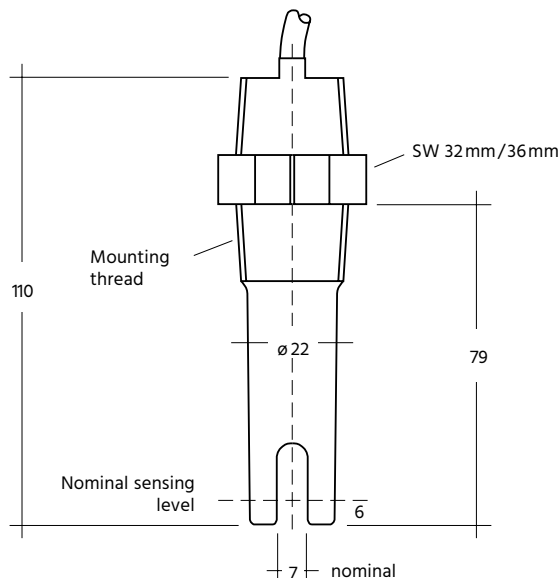
Schematic 003-S.x models



Schematic 003-H.x models



Dimensions in mm:



Electrical Specifications:

003.S.x Models /

Power supply:	18. . .30 VDC or AC
Switching function:	SPCO relay (energised wet)
max. Switched current:	1A bei 30 V res., 0.25 A bei 30 V ind.
max. Switched voltage:	30 V
Dry current drawn:	10 mA nom.
Wet current drawn:	25 mA max.
Cable length:	3 m: 5 core 7/0.2 mm
Cable sheathing:	PVC
IP rating of sensor:	IP66/IP68 (3 m)

003.H.x Models /

Power supply:	18. . .30 VDC
Switching function:	2 x FET open drain (short circuit protected)
max. Switched current:	100 mA
max. Switched voltage:	30 V
Dry current drawn:	8 mA nom. (4 mA min)
Wet current drawn:	16 mA nom. (20 mA max.)
Cable length:	3 m: 5 core 7/0.2 mm
Cable sheathing:	PVC
IP rating of sensor:	IP66/IP68 (3 m)

Ordering Codes:

Order number	003.	S.	2.	1
Mobrey™ 003 Ultrasonic Level Switch				
Output /	S = integral SPCO relay energised when sensor wet H = two open drain FET transistors			
Process connection /	0 = R 3/4" BSPT dual 2 = R 1" BSPT dual 5 = 1" NPT			
Cable /	1 = PVC sheathed, 3 m, 5-core 7 / 0.2 mm			