

# OLM Series

## High performance optical liquid level switches

### FEATURES

- Solid state technology, no moving parts
- TTL compatible or transistor output
- 10 mA or 800 mA output current
- Stainless steel housing
- High media compatibility
- Fast response, electrically robust

### WETTED MATERIALS

Tip: Polysulphone  
Housing: Stainless steel 304



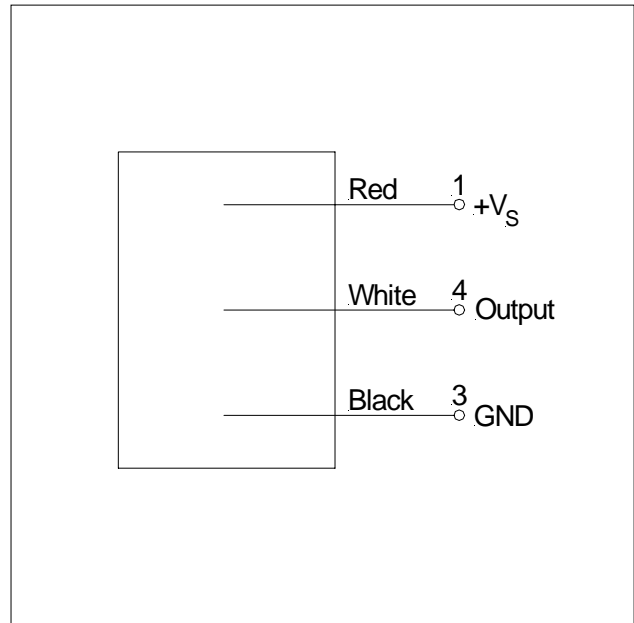
### SPECIFICATIONS

#### Maximum ratings

Supply voltage	
OLM01T...	5...12 V
OLM80U...	10...45 V
Supply current	
OLM01T...	15 mA
OLM80U...	25 mA
Output current	
OLM01T... *	10 mA
OLM80U...	800 mA
Operating temperature range	
OLM...2...	-25 to 80°C
OLM...4...	-40 to 125°C
Pressure range	25 bar
Protection class	up to IP 68

\* 10 mA sink current, source current depends on  $V_s$  and  $R_L$

### ELECTRICAL CONNECTION



# OLM Series

## High performance optical liquid level switches

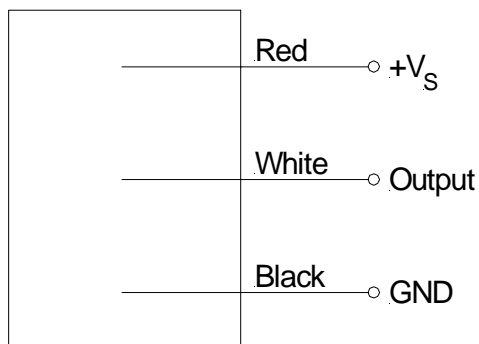
### PERFORMANCE CHARACTERISTICS

Characteristics	Min.	Typ.	Max.	Unit
Repeatability			±1	mm
Hysteresis (depending on liquid)			1	
Response time rising liquid			50	µs
Response time falling liquid (ethanol)			1	s

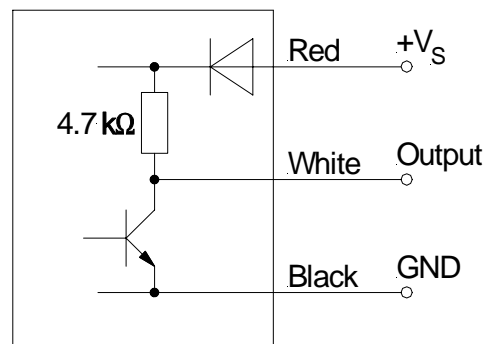
### ELECTRICAL CONNECTION (cont.)

Assignment	Electrical Termination	
	M12 x 1 (pin)	Cable, 3 m (lead colour)
+V <sub>s</sub>	1	Red
N/C	2	-
GND	3	Black
Output	4	White

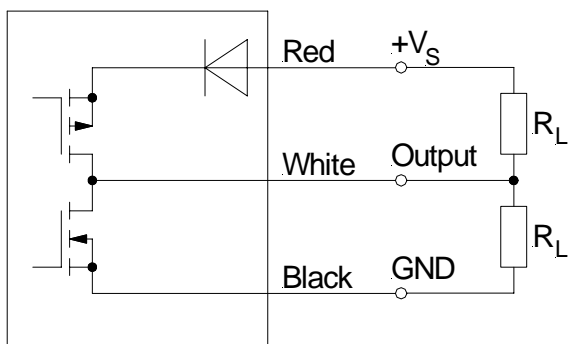
#### TTL compatible (high in air)



#### TTL compatible (low in air)



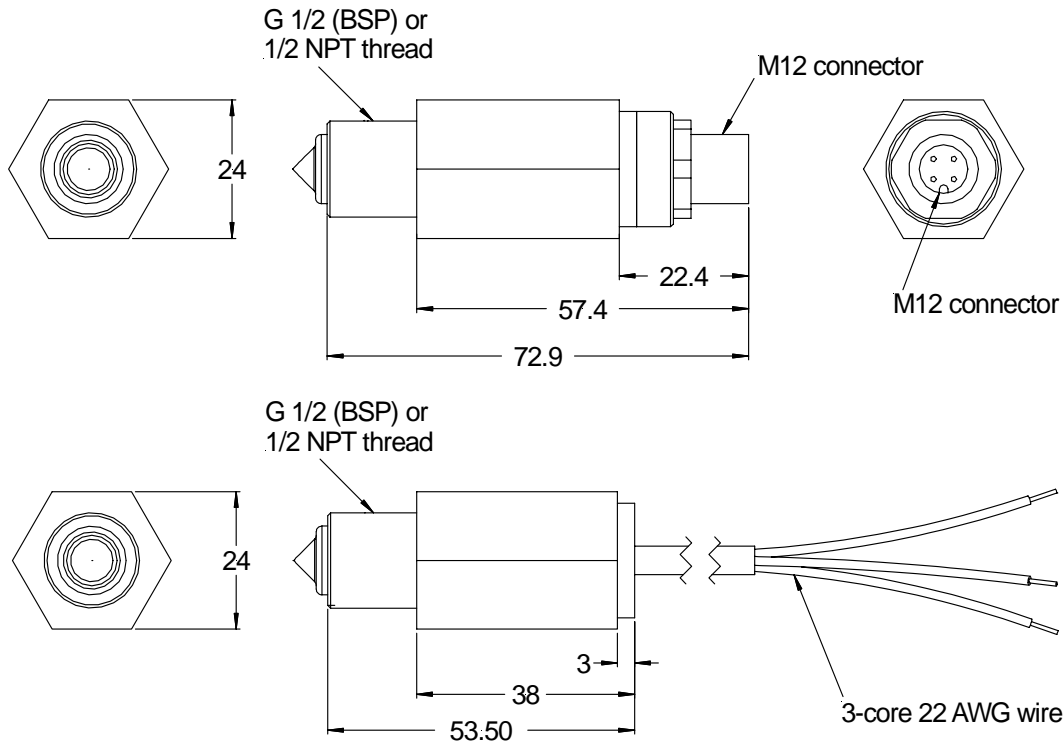
#### Push-Pull (current sinking and sourcing)



# OLM Series

## High performance optical liquid level switches

### OUTLINE DRAWING



mass: approx. 115 g

dimensions in mm

**Note:** Do not mount the sensor with prism pointing downwards.  
The prism should be at least 10 mm away from any infrared-reflecting surface.

### ORDERING INFORMATION

Options	Series	Output				Tip material	Housing type		Temperature		Termination			
		Current	Type	Function										
	OLM	01T	10 mA	TTL compatible	0	Low in air	P	Polysulphone	S	G 1/2 (BSP)	2	-25...80 °C	D	M12 x 1 (IP67)
		80U	800 mA	Push-Pull	1	High in air			T	1/2 NPT	4*	-40...125 °C	M	Cable, 3m (IP67)
											* not available for ...01T0... versions			
<b>Example:</b>	OLM	80U			0		P		S		2		D	

First Sensor reserves the right to make changes to any products herein. First Sensor does not assume any liability arising out of the application or use of any product or circuit described herein, neither does it convey any license under its patent rights nor the rights of others.