

OLP Series

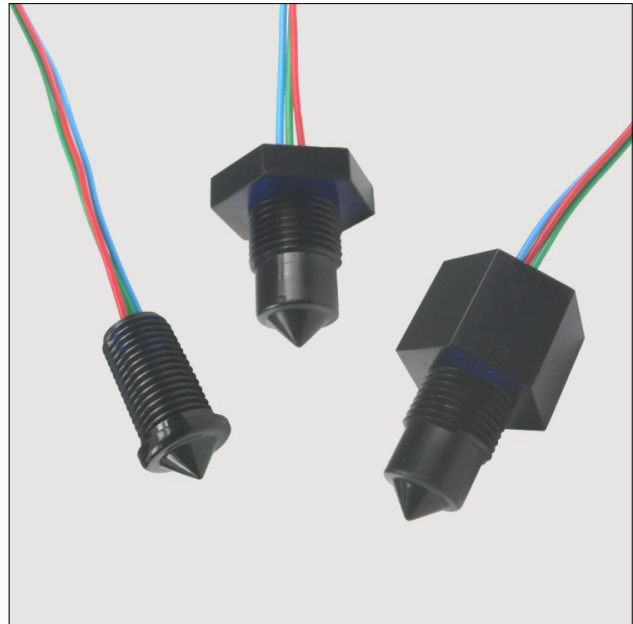
Polysulphone optical liquid level switches

FEATURES

- Solid state technology, no moving parts
- Miniature size, easy to install
- Basic, TTL compatible or transistor output versions
- 10 mA or 500 mA output current
- Polysulphone housings
- High media compatibility
- Fast response, electrically robust

WETTED MATERIALS

Tip and housing: Polysulphone

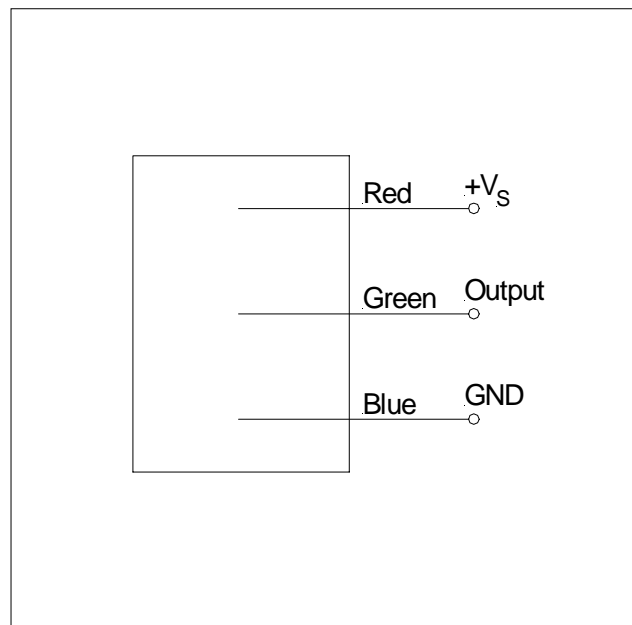


SPECIFICATIONS

Maximum ratings

Supply voltage	
OLP01...	5...12 V
OLP50...	10...40 V
Supply current	
OLP01...	15 mA
OLP50...	25 mA
Output current	
OLP01...	10 mA
OLP50...	500 mA
Operating temperature range	-25 to 80°C
Pressure range	
OLP...F	20 bar
all others	7 bar
Protection class	IP 67

ELECTRICAL CONNECTION



OLP Series

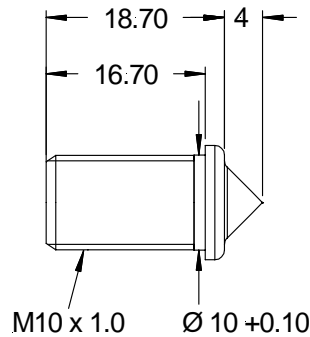
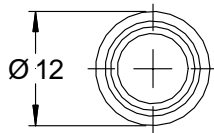
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PERFORMANCE CHARACTERISTICS

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

OUTLINE DRAWING

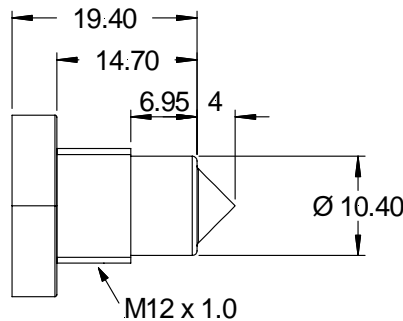
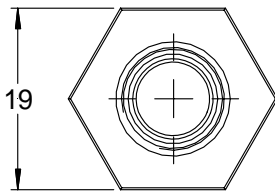
M10 thread
(Housing type OLP...F...)



mass: 5 g

dimensions in mm

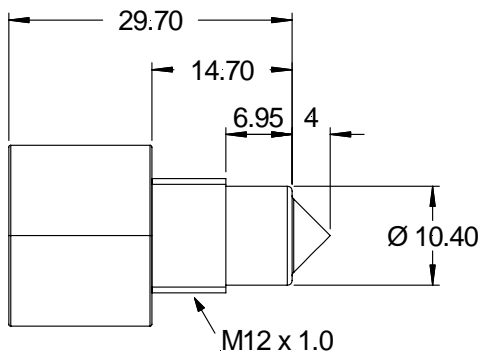
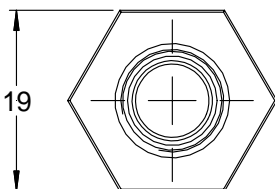
M12 thread short
(Housing type OLP...K...)



mass: 6 g

dimensions in mm

M12 thread long
(Housing type OLP...L...)



mass: 10 g

dimensions in mm

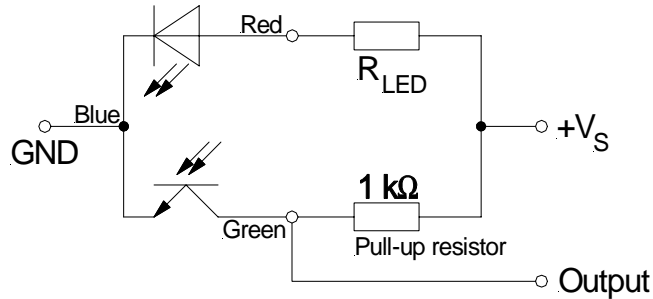
Note: All OLP... devices are supplied with lead wires. The wire lengths are 200 mm -0, +30 mm measured from the back of the polysulphone housing.

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ELECTRICAL CONNECTION (cont.)

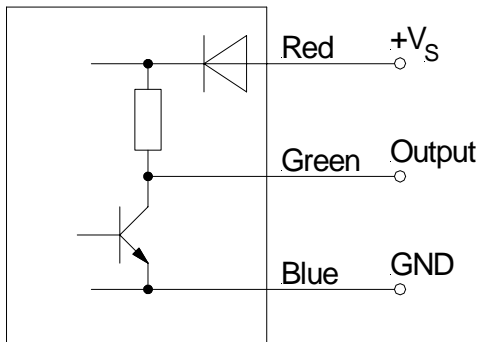
Basic



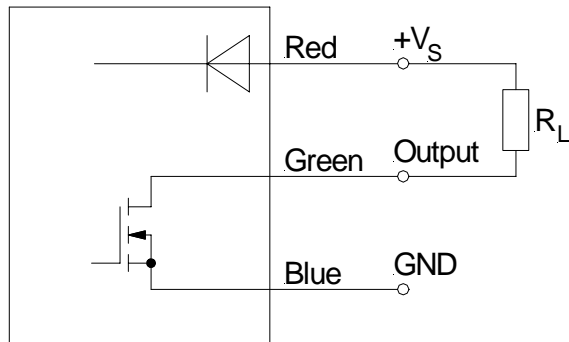
Note: Customer has to select suitable resistors for chosen supply voltage. Forward voltage of LED is 1.3 V and LED current should be 10 mA (depending on application liquid). R_{LED} can be calculated as follows (e.g. for $V_S=12$ V):

$$R_{LED} = \frac{(V_S - 1.3) V}{10 \text{ mA}} = \frac{12 - 1.3}{0.01} = 1070 \Omega \approx 1.1 \text{ k}\Omega$$

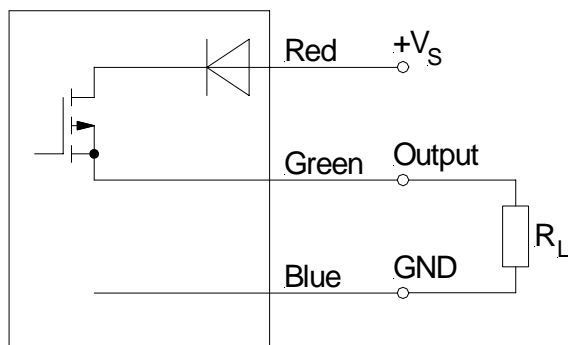
TTL compatible



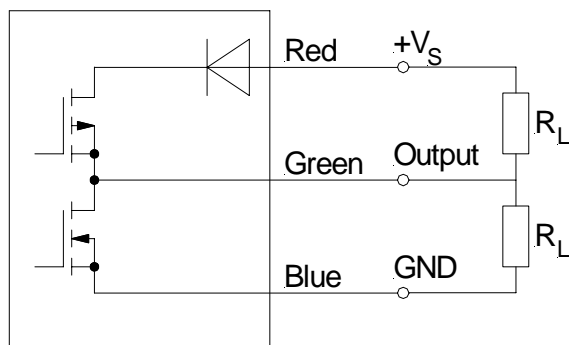
NPN transistor (current sinking)



PNP transistor (current sourcing)



Push-Pull (current sinking and sourcing)



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ORDERING INFORMATION

Basic and TTL compatible output types

Options	Series		Output			Housing type	Termination
			Current	Type	Function		
	OLP	01B:	10 mA	basic*	0: Low in air	F: M10 thread	3: 3 wire
		01T:	10 mA	TTL compatible	1: High in air	K: M12 thread short	4: 4 wire*

* Low in air only

* on request, minimum order quantity may apply

Example:	OLP	01T		0		F	3
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Transistor output types

Options	Series		Output			Housing type	Termination
			Current	Type	Function		
	OLP	50U:	500 mA	Push-Pull	0: Low in air	L: M12 thread long	3: 3 wire
		50N:	500 mA	NPN transistor	1: High in air		4: 4 wire*
		50P:	500 mA	PNP transistor			

* on request, minimum order quantity may apply

Example:	OLP	50N		0		L	3
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Note: Custom specific options are widely available!
Please contact your nearest Sensortech sales office for further information.

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