

OLP Series

Polysulphone optical liquid level switches

FEATURES

- Solid state technology, no moving parts
- Miniature size, easy to install
- TTL compatible or transistor output versions
- 100 mA or 1 A output current
- Polysulphone housings
- High media compatibility
- Fast response, electrically robust

WETTED MATERIALS

Tip and housing: Polysulphone

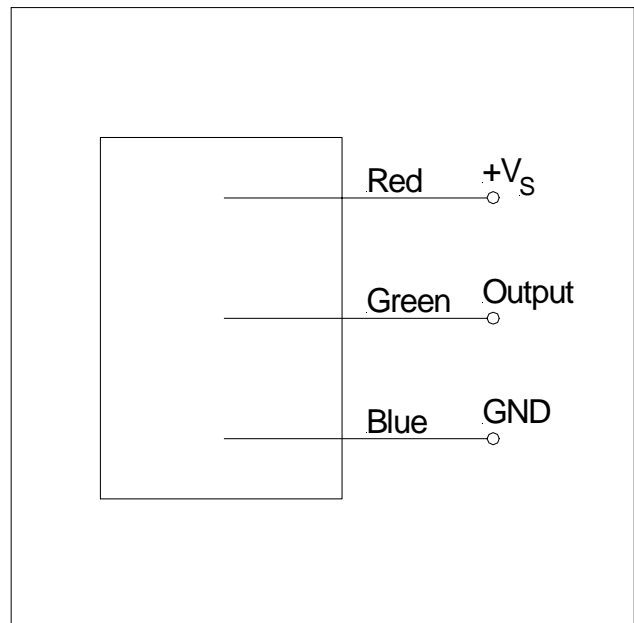


SPECIFICATIONS

Maximum ratings

Supply voltage	
OLP01..., OLP25X...	4.5...15.4 V
OLP25U...	8...30 V
Supply current	
OLP01..., OLP25X...	2.5 mA
OLP25U...	7.5 mA
Output current	
OLP01...	100 mA
OLP25...	1 A
Operating temperature range	
OLP01...	-25...80°C
OLP25...	-40...125°C
Pressure range	
OLP...F	20 bar
all others	7 bar
Dielectric strength	4 kV
Protection class	IP 67

ELECTRICAL CONNECTION



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OUTPUT VOLTAGE

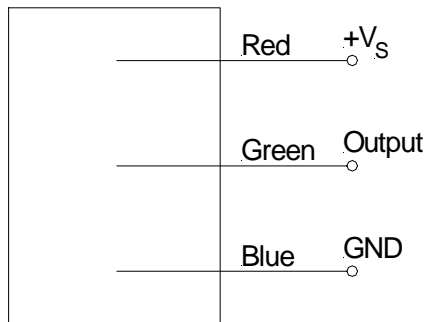
Part no.	Condition	Output voltage (V_{out})	
		High	Low
OLP01...	$V_s = 4.5...15.4 \text{ V}$, $I_{out} = 100 \text{ mA}$	$V_{out} = V_s - 1.0 \text{ V max}$	$V_{out} = 0 \text{ V} + 0.5 \text{ V max}$
OLP25X...	$V_s = 4.5...15.4 \text{ V}$, $I_{out} = 1 \text{ A}$	$V_{out} = V_s - 1.5 \text{ V max}$	$V_{out} = 0 \text{ V} + 0.5 \text{ V max}$
OLP25U...	$V_s = 8...30 \text{ V}$, $I_{out} = 1 \text{ A}$	$V_{out} = V_s - 1.8 \text{ V max}$	$V_{out} = 0 \text{ V} + 0.7 \text{ V max}$

PERFORMANCE CHARACTERISTICS

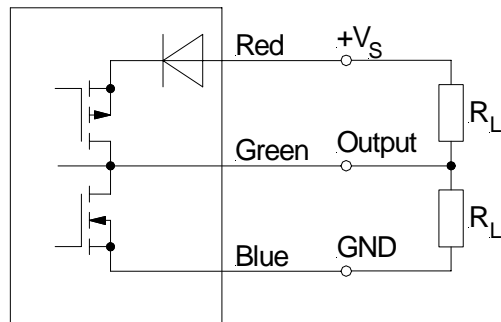
Characteristics	Min.	Typ.	Max.	Unit
Repeatability			± 1	mm
Hysteresis (depending on liquid)			1	
Response time rising liquid			50	μs
Response time falling liquid (ethanol)			1	s

ELECTRICAL CONNECTION (cont.)

TTL compatible



Push-Pull (current sinking and sourcing)



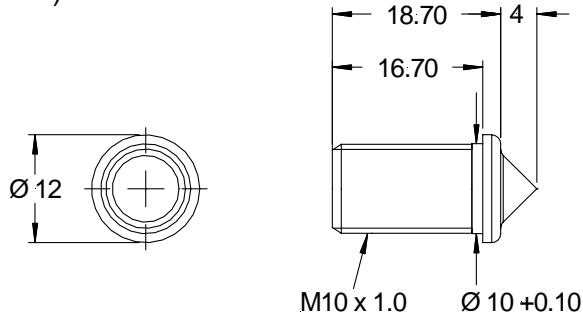
Note: All OLP... devices are supplied with lead wires. The wire lengths are 200 mm -0, +30 mm measured from the back of the housing. Wire diameters are 0.511 mm (AWG 24) for all OLP01... devices and 0.812 mm (AWG 20) for all OLP25... devices.

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OUTLINE DRAWING

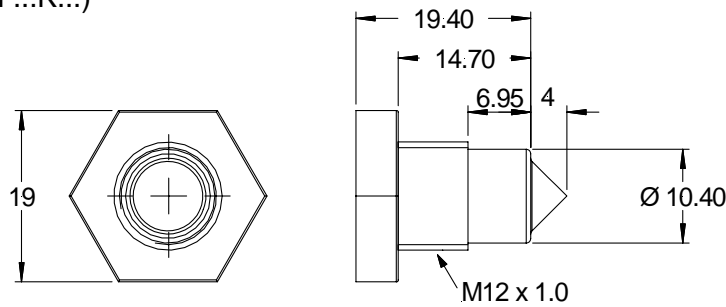
M10 thread (Housing type OLP...F...)



mass: 5 g

dimensions in mm

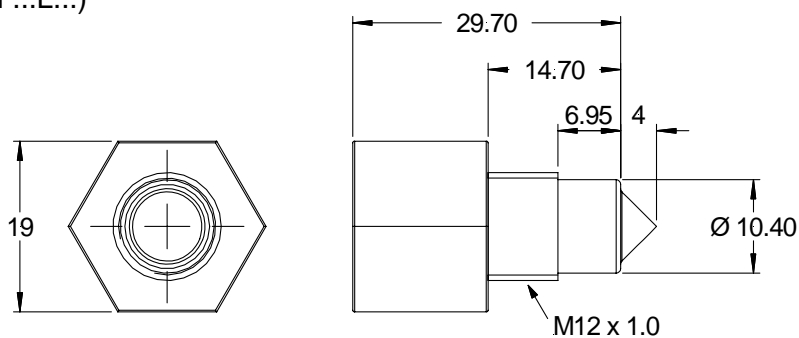
M12 thread short (Housing type OLP...K...)



mass: 6 g

dimensions in mm

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



mass: 10 g

dimensions in mm

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

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ORDERING INFORMATION

TTL compatible output devices

Options	Series	01T	Output			Housing type	Termination
			Current	Type	Function		
	OLP		100 mA	TTL compatible	0 Low in air	F M10 thread	3 3 wire
					1 High in air	K M12 thread short	
Example: OLP 01T 0 F 3							

Transistor output devices

Options	Series	25X	Output			Housing type	Termination
			Current	Type	Function		
	OLP		1 A	Push-Pull (V _s = 4.5...15.4 V)	0 Low in air	L M12 thread long	3 3 wire
		25U	1 A	Push-Pull (V _s = 8...30 V)	1 High in air		
Example: OLP 25U 0 L 3							

Accessories (please order separately using the following order numbers)

Order No.	Description	Use with
F I X I N G N U T S		
ZA000910	M12 x 1, nickel plated brass	OLP...K..., OLP...L...
ZA000911	M12 x 1, stainless steel (303, clear passivated)	
ZA000912	M10 x 1, plastic	OLP...F...
W A S H E R S		
ZA000913	M12 x 1, VAMAC	OLP25...L... (high temperature devices)
ZA000914	M12 x 1, nitrile	OLP01...K... (standard temperature devices)
ZA000915	9.5 x 1, silicone O-ring, shore ~60	OLP01...F...

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