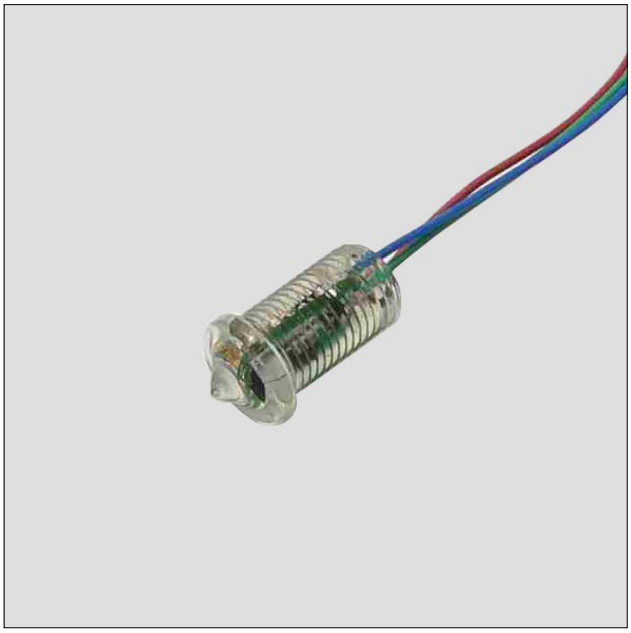
OLT Series
Trogamid optical liquid level switches

FEATURES

- **Solid state technology, no moving parts**
- **Miniature size, easy to install**
- **Basic, TTL compatible or transistor output versions**
- **10, 250 or 500 mA output current**
- **Trogamid housings**
- **High media compatibility**
- **Fast response, electrically robust**



WETTED MATERIALS

Tip and housing: Trogamid

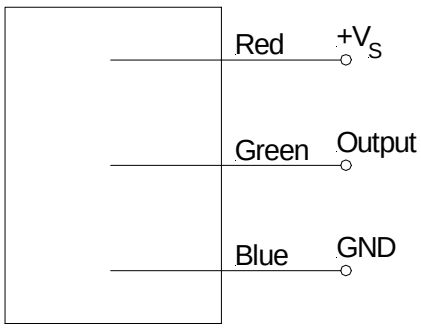
SPECIFICATIONS

Maximum ratings

Supply voltage	
OLT01...	5...12 V
OLT25X...	5...16 V
OLT25U...	10...28 V
OLT50...	10...40 V
Supply current	
OLT01..., OLT25...	15 mA
OLT50...	25 mA
Output current	
OLT01...*	10 mA
OLT25...	250 mA
OLT50...	500 mA
Operating temperature range	
OLT01..., OLT50...	-25 to 80°C
OLT25...	-40 to 125°C
Pressure range	
OLT...F	20 bar
all others	7 bar
Protection class	IP 67

* 10 mA sink current, source current depends on V_S and R_L

ELECTRICAL CONNECTION



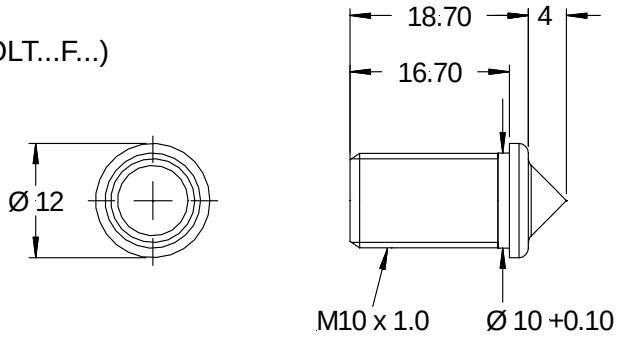
Note: For basic sensor versions (OLT01B...) suitable resistors have to be selected.
See details on page 3.

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

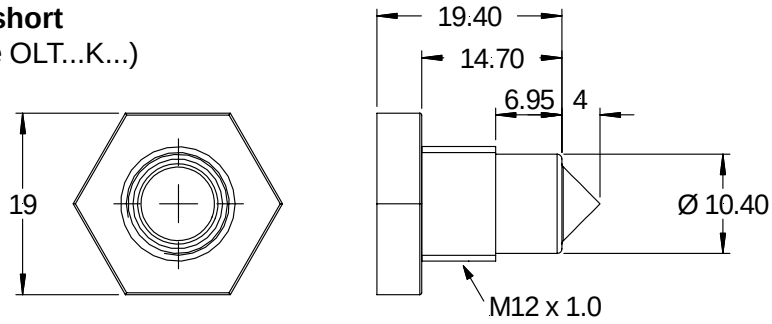
M10 thread
(Housing type OLT...F...)



mass: 5 g

dimensions in mm

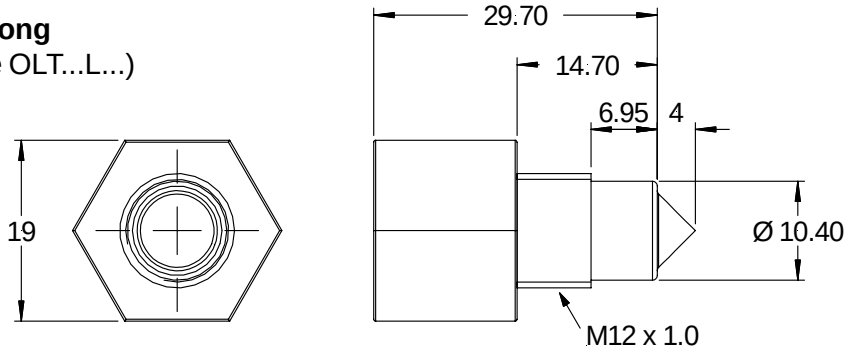
M12 thread short
(Housing type OLT...K...)



mass: 6 g

dimensions in mm

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



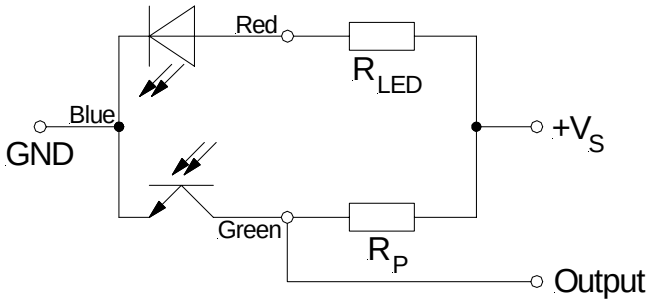
mass: 10 g

dimensions in mm

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

ELECTRICAL CONNECTION (cont.)

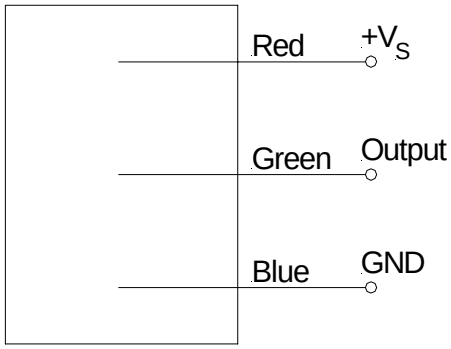
Basic



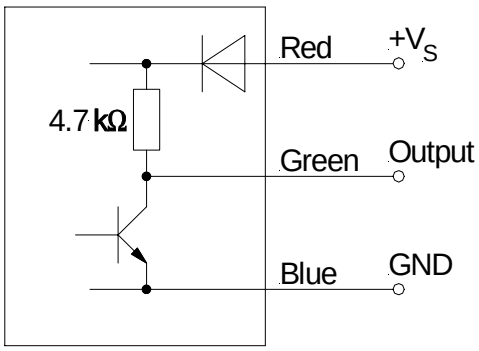
Note: Customer has to select suitable resistors for chosen supply voltage. Pull-up resistor R_P could be e.g. 10 kΩ depending on desired output. Forward voltage of LED is 1.3 V and LED current should be 10 mA (depending on application liquid).
R_{LED} can be calculated as follows (e.g. for V_S=12 V):

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

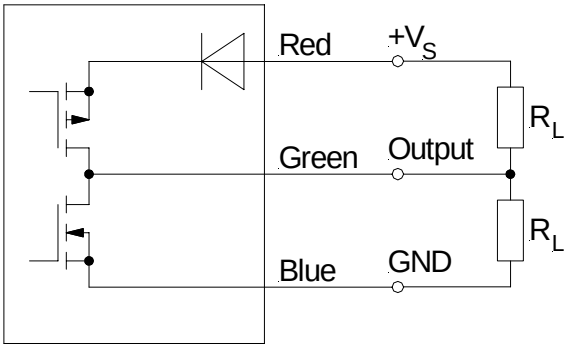
TTL compatible (high in air)



TTL compatible (low in air)



Push-Pull (current sinking and sourcing)



ORDERING INFORMATION

Basic and TTL compatible output types

	Series	Output					Housing type		Termination	
			Current	Type	Function					
Options	OLT	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, MOQ may apply
Example:	OLT	01T			0		F		3	

Transistor output types

	Series	Output					Housing type		Termination	
			Current	Type	Function					
Options	OLT	25X:	250 mA	Push-Pull (V_S= 5...16 V)	0:	Low in air	L:	M12 thread long	3:	3 wire
		25U:	250 mA	Push-Pull (V_S= 10...28 V)	1:	High in air			4:	4 wire*
		50U:	500 mA	Push-Pull						
										*** on request, MOQ may apply**
Example:	OLT	50U			0		L		3	

Accessories (please order separately):
- Nuts, available in Plastic, Nickel Plated Brass or Stainless Steel
- Washers, available in VAMAC (for high temperature) and Nitrile (for standard temperature)

Note: Custom specific options are widely available!
Please contact your nearest Sensortechnics sales office for further information.