

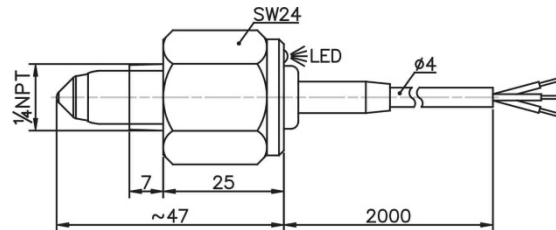
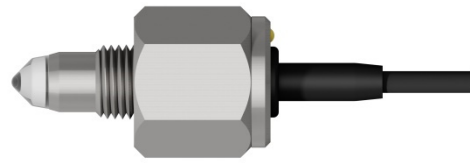


**OPTICAL LIQUID**

**LEVEL SENSORS**

for standard temperatures

**SERIES POS 147 P  
WITH PROCESSOR**



		TECHNICAL PARAMETERS	
NOMINAL VOLTAGE	Un	24 VDC	
SUPPLY VOLTAGE	Uc	12 – 30 VDC	
SUPPLY CURRENT	Ic	< 25 mA	
OUTPUT CURRENT	Iz	≤ 200 mA	
OUTPUT INDICATOR		LED	
REVERSE POLARITY PROTECTION		yes	
SHORT CIRCUIT PROTECTION		yes	
SWITCHING DISTANCE (% OF A DIPPED SENSING TIP)		< appr. 50%	
DISTANCE FROM THE SHINY SURFACE		> 100 mm *	
SWITCHING FREQUENCY		35 Hz	
AMBIENT TEMPERATURE RANGE process	T	-25°C...+80°C	
AMBIENT TEMPERATURE RANGE ambient	T	-25°C...+80°C	
MATERIAL OF THE SENSING TIP		Borosilicate Glass	
MAXIMUM OPERATING PRESSURE		0,2 MPa	
MATERIAL OF THE HOUSING		Stainless Steel DIN 1.4404/ AISI 316L	
PROTECTION STANDARD		IP 68	
CONNECTION TYPE		Cable PVC 3 x 0,25 mm <sup>2</sup> ; 2 m	

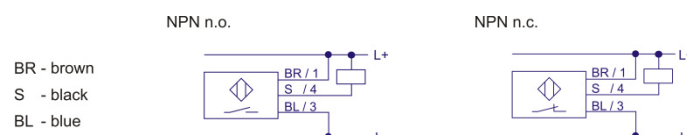
\* for details please see information below and on the second page of this datasheet

UTPUT		ORDER REFERENCE NUMBER
NPN	n.o.	<b>POS 147 6 311 P</b>
	n.c.	<b>POS 147 6 312 P</b>

#### SENSOR APPLICATION

Sensor POS 147 312 P is suitable for sensing of various water or oil based non-foamy liquids (not emulsions), e.g. water, oil paraffin etc. The sensor is chemically resistant. Use of strong acids and alkaline solutions is to be consulted with the manufacturer.

#### WIRING DIAGRAM



## ADVANTAGES OF USING A SENSOR WITH A PROCESSOR

The processor version provides for much more possibilities in setting of the sensor as well as in precision of settings. The sensitivity of this sensor type can be set with much greater accuracy to suit the environment in the device. Also, parametric variation (e.g. sensitivity) is appr. 5 times lower. The use of this type of sensor is suitable particularly in demanding applications, e.g. sensing of the foamy oil. Sensing parameters of the sensor will be adjusted exactly according to the needs of the specific application of the customer (not a user function).

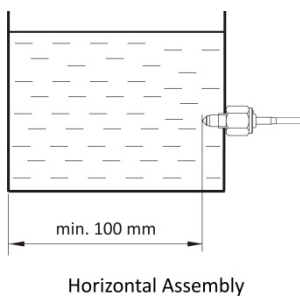
## HANDLING INSTRUCTIONS

Optical liquid level sensors can be used only according to the manufacturer's mounting and operation principles as well as handling instructions. On the mounting and manipulation of the optical liquid level sensors it is essential to make sure the glass tip is not damaged. Protection cap delivered with sensors is not able to protect the glass tip from damage when hit on the hard surface. Damage of the sensing tip will cause permanent failure of the sensor that can become evident later.

For faultless operation it is necessary to keep the glass tip clean from grease, dirt and sediments. It is also sensitive to human touch. Clean gently and carefully with soft fabric using isopropyl alcohol.

Sensing tip protection cap is to be removed just prior to the assembly of the sensor only!

## ASSEMBLY INSTRUCTIONS AND LIMITATIONS



## HORIZONTAL ASSEMBLY

The most suitable way of sensor assembly is horizontal position through the tank wall as introduced in the picture on the left.

## DISTANCE FROM THE SHINY SURFACE

Sensor has to be mounted in a way sensing tip is placed minimum **100 mm from the glossy (mirror) surfaces**. Glossy surface is any surface reflecting infrared radiation e.g. polished steel, mirror etc.) Proximity of a glossy surface can influence sensor reliability adversely, as sensor in this case is not able to distinguish if the liquid is present or not. In case shorter sensing distance is required, please consult the manufacturer.

## STANDARDS AND LICENSES / ELECTROMAGNETIC COMPATIBILITY / ROHS

Optical liquid level sensors POS type of the company PLOSKON AT are developed, manufactured and tested in accordance with the valid standards and regulations. They conform to the currently valid IEC regulations, EN standards and DIN VDE regulations:

- European Standard No. EN 609 47-5-2:2007/A1:2012 and EMC Directive No. 2014/30/EU (relating to the electromagnetic compatibility);
- Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment 2015/863/EC (commonly referred to as RoHS III);
- European Regulation 1907/2006/EU – REACH.

Sensors are being manufactured also in accordance with safety and health provisions related to the design and construction of electrical devices and conform also to the requirements of the UKCA and China RoHS.



## INTERFERENCE VOLTAGE / SHORT-CIRCUIT / OVERPOLING

Sensors conform to the standards IEC 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4 and IEC 61000-4-6. All sensors are permanently short-circuit and over-poling proof.