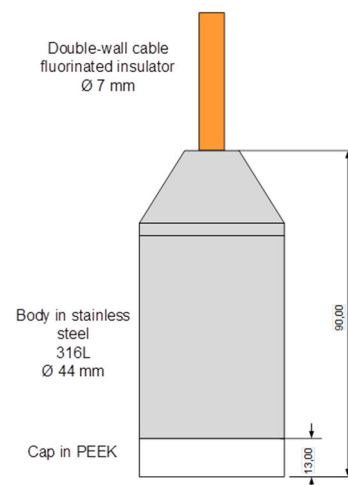


SNA Programmable level sensor

1 GENERALES SPECIFICATIONS

Measuring range	0 – 0,05 bar to 0 –1 bar
Supply voltage	8V to 35V DC limited to 1A (comply with polarity).
Output signal	4 / 20mA
Dimensions	Dia. 44mm, Length = 90mm
Weight	560g + 50g per metre of cable
Materials	Body in 316L passivated stainless steel Plug in PEEK (PolyEtherEtherKetone)
Fixing	Suspended by the cable or screwed to 1¼G pressure tap.
Usage Temperature	- 20 °C à + 60 °C protected from frost
Storage Temperature	- 20 °C à + 80 °C protected from frost
Maximum pressure without deterioration	1,2 bars
Warm up time	< 500 ms
Response time	< 500 ms
Standard cable :	Double wall, without capillary tube. Electrical screening, 2 conductors 0,60 mm ² (60mΩ/m), Dia. 7mm +/-0,5mm, weight 50g/m.
Standards : (CE marking)	EN61000-6-2 - EN61000-6-3 - EN61010-1 - EN62479 – EN50581. Fast transients EN 61000-4-4 Level 3 Lightening shock strength EN 61000-4-5 6KV
According to ISO 4373	Physical principle of the device: pressure measurement by immersion Maximum variation speed : not applicable Response time: <500 ms Performance class: 3 Temperature class: 2 Relative humidity class: 1 IP classification: IP68 Compatibility with drinking water: no Compatibility with explosive environment: no



2 METROLOGICAL SPECIFICATIONS (1) :

Overall precision from 0 to 40 °C (including temperature drift) (2)	+/- 0,1% of the maximum full scale, that being +/- 1mbar
Long-term drift / constancy (at 25 °C)	+/- 2 mbar non-cumulative

3 IMPLEMENTATION

The SNA sensor is a programmable sensor, so it is essential before installation to ensure the desired full scale sensor has been configured. The PARATRONIC "Sensor IHM" program along with the ADP USB converter must be used for this.

The SNA sensor may be used underwater, in which case it is suspended by the cable, or connected to a 1¼" female gas thread (replacing the plug) (in the latter case, use a 38 mm wrench for tightening or loosening the sensor).

Generally speaking, the SNA sensor must be installed in compliance with good engineering practice (if fitted to a pressure tap: install a three-way valve and a purge, increase pressure slowly and gradually, vertical hydraulic fitting cell at top and cable at bottom, etc.).

During use, the pressure sensor must not be subjected to sudden variations in pressure or temperature or an overrun of its characteristic values.

A level probe is a measuring instrument; it must therefore be handled carefully and not subjected to violent mechanical or thermal shocks or intense vibrations.

In all cases, venting the pressure sensor through the cable requires precautions to be taken during installation:

- Handle the cable carefully, do not damage or pierce it, do not bend it, comply with a minimum radius of curvature of 80 mm,
- Suspend it with the hook provided, raising it a few cm above the bottom of the tank (the sensor must not touch the bottom),
- Ensure the end of the cable is at atmospheric pressure, free of chemical contamination and that it is never flooded.

For an instrumentation tap on a pipe run, place the probe vertically. Increase pressure slowly and gradually. Ensure that the probe is never subjected to sudden variations in pressure, complying with the maximum permissible operating pressure.

4 MAINTENANCE

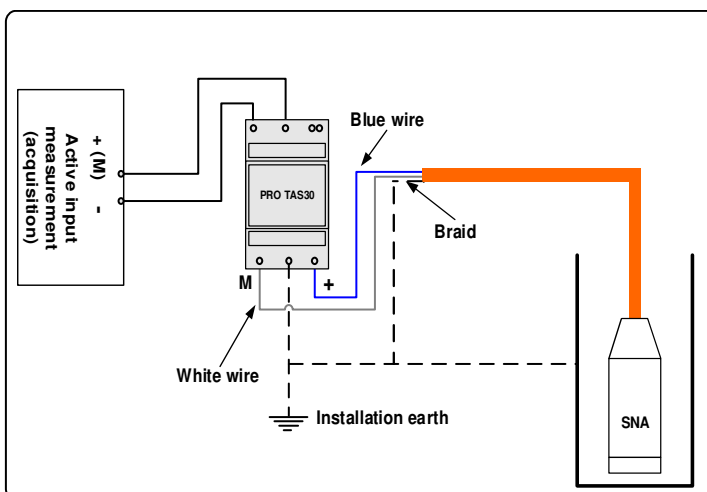
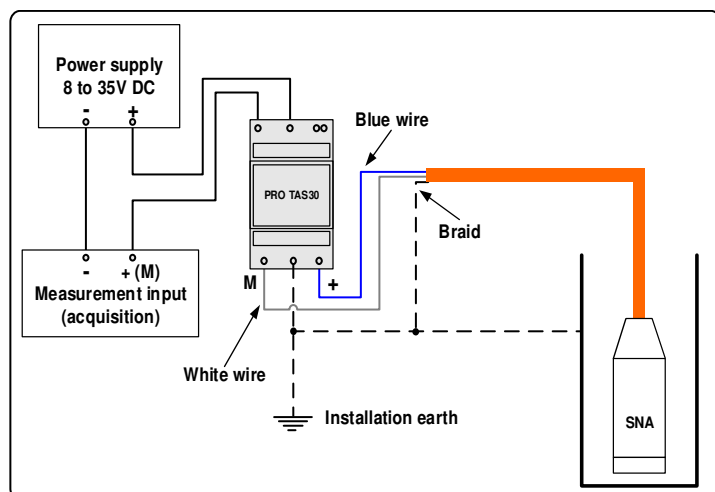
If clogging occurs, unscrew the plug to clean the measuring cell.

The cell is an extremely fragile component and precautions must be taken when cleaning it. Do not use a high-pressure cleaner or tools. Do not scrape or rub. Just rinse it. Screw the plug back.

(1) Typical values for any full scale setting between 0.3 and 1 bar.

(2) Precision includes: temperature drift, linearity, pressure hysteresis and repeatability.

5 CONNECTIONS



6 CALIBRATION

Maximum programmable full scale (full scale by default): 1 bar

Full scale configured (mbar):

Corresponding full scale (mH₂O):

Length of cable (m):

CALIBRATION PROBE No.

PRESSURE	CURRENT
0 %	mA
50 %	mA
100 %	mA

7 HEIGHT/PRESSURE CONVERSION

The SNA submersible level sensor may be used in liquids of different densities.

As part of the process for programming the probe, it may be necessary to calculate the correspondence between pressure in mbar and height of the liquid:

The height of the liquid is the product of the pressure and the factor 10.197 and related to the density:

PRESSURE (mbar)	X 10.197		DENSITY *	=	HEIGHT (mm)
0	X 10.197			=	0
	X 10.197			=	
	X 10.197			=	

*: Density of the liquid to be measured.

8 SAFETY SYMBOLS AND MARKINGS



: Risk of danger : Important information. Refer to the instructions.



: Read the instructions.



: Complies with the European Union and EFTA directives.



: European directive 2002/96/CE of 27 January 2003, concerning waste electrical and electronic equipment (WEEE Directive) has been transposed in France by Decree No. 2005-829 of 20 July 2005.

Electrical or electronic appliances, as well as their spare parts and consumables must never be disposed of in domestic waste. **PARATRONIC** has undertaken to set up an Individual Collection System.

Customers (end users) are requested to return **PARATRONIC** electrical and electronic equipment waste to the following address:

PARATRONIC - Zone Industrielle - Rue des Genêts, 01600 REYRIEUX, France.
WEEE Recycling Department

9 SAFETY INSTRUCTIONS



: WARNING : If the sensor is used in an unspecified manner, the protection it provides may be compromised.

The manufacturer reserves the right to modify the characteristics described in this document without notice.