## Hydrostatic Level Sensor Selection And Accessories



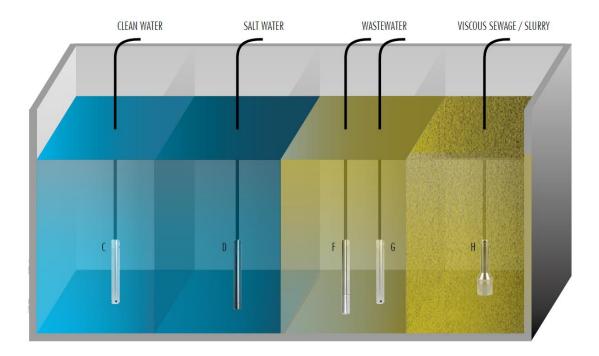


## Content

- What is it and how does it work
- Main Parts of the device
- How to select it for your application
- Intech Brands and advantages
- Accessories and relevant add ons
- Questions



## What is it & How does it work?



A Hydrostatic level transducer is a sensor that can calculate the head of pressure of the fluid above the sensing diaphragm.

0.1 Bar of pressure equals 1m of water depth and the varying depth is translated into a scaled variable signal typically 4-20mA or 0-10Vdc. A 12 to 24Vdc power supply is required to power the analogue loop.



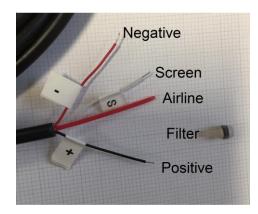
### • Lead -Material and Length

Common types:

FEP (Fluorinated ethylene propylene)

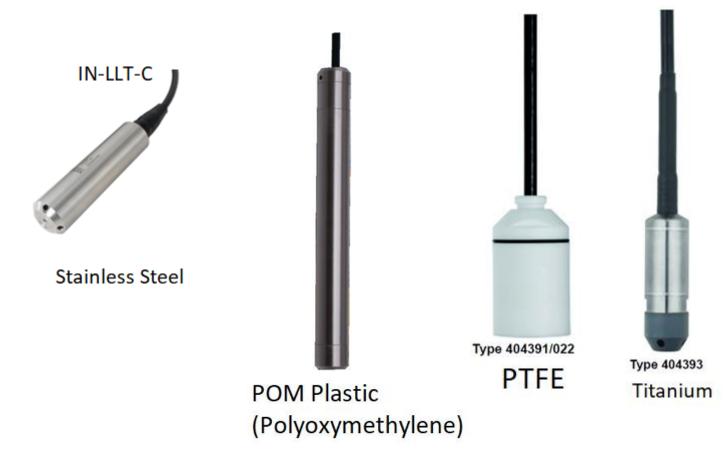
Good for Diesel, chemicals, acids and Bases. Very similar to PTFE. PUR (Polyurethane)

Good for Water, UV, some chemicals and some oils. Hard wearing.





Main Body-Body Material





• Diaphragm - Size, Material and Position

-Common is stainless steel and Ceramic. Titanium is available.
-The Diaphragm is the very sensitive part converting the pressure to the sensitive electronics inside.
-The larger the Diaphragm the less prone to blockage, but it can be susceptible to damage

Closed Recessed Diaphragm

Recessed Open Diaphragm



Flush Exposed Diaphragm





• Threads and addons for diaphragm protection/ blockage protection

Internal Thread for screwing on covers

External thread for attaching to vessels or screwing on anti blocking attachment



# How to select it for your application

### **Typical Applications are:**

Diesel Fuel Water Greywater Sewerage Caustic applications

### **Considerations for medium are:**

Blockage from debris vs diaphragm size Thickness / Viscosity of the medium vs diaphragm size Chemical reaction and corrosion behaviour on the materials

#### **Other factors for selection:**

Depth and installation techniques for protection



## **Intech Brands and advantages**

Jumo: German precision and Quality, Optional accessories Built in Overvolt protection Well stocked in NZ in common ranges (1,2.5, 4, 6, 10, 25 and 40m depth)

Nivelco: Hungarian build, HART Programmable depth (up to half the depth on the NPK series) Larger range of quality accessories, Extended warranty up to 5 years Well stocked in NZ for common ranges (1, 2, 5, 10, 20, 50m depth)

Intech: Economical Small 17mm diameter in 10m depth range and above 26mm diameter for 1 and 5m depth Available with 0-5Vdc output in 1,5, 10 and 20m Depths Well stocked in NZ for common ranges (1, 5, 10, 20, 50 and 100m depth)



## Accessories and **Relevant Add ons**

Filter



LPN-OVP





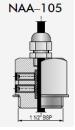
NAA-101/102



OVP-32/33

OVP-22/33





Sewerage adapter

**IN-UP4** Display

- Filter •
- Terminal box with air filter and OVP •
- Over Volt protection ٠
- Sewerage adapter ٠
- Cable clamps ٠
- Displays ٠
- Hart Programming Modem ٠

HART Modem

NAA-209





## **THANK YOU!**

### **Questions?**

**Contact us:** 

INTECH INSTRUMENTS LTD. Christchurch: 03 343 0646 Auckland: 09 827 1930 <u>sales@intech.co.nz</u> <u>www.intech.co.nz</u>