

## P-05 Installation procedure

### Introduction

This document aims to describe the installation steps that apply to the installation of the P-05 pressure gauge.

P-05 (Figure 1) is a pressure sensor with various possibilities of installation depending on the circumstances of measurement and the sensor deployment. This document describes the necessary steps which are needed for the successful connection and deployment of the P-05 Pressure sensor.



**Figure 1:** Illustrative picture of P-05 pressure gauge with highlighted pressure intake.

### Installation requirements

#### Instruments & Tools

- [Optional] FBG interrogator
- Suitable wrench key for couplings (standard G1/8" connection fittings are 14/15/16mm)
- Wrench key size 27mm for "Porous Stone adapter"
- [In case of coupling without sealing] Teflon tape, pipe cord, liquid anaerobic sealant, etc...

#### Installation time

Typical installation time for P-05 sensor: **around 2-3min** (surface preparation, adhesive curing, vent or porous stone saturation not taken into account).

### Installation sequence

The P-05 was designed for an easy “plug & play” installation and in most cases, it is necessary to only connect the sensor to the pressure outlet to measure the actual pressure in the system. However, depending on the connection to the pressure system, it can require several steps to follow to successfully install and secure the sensor in place.

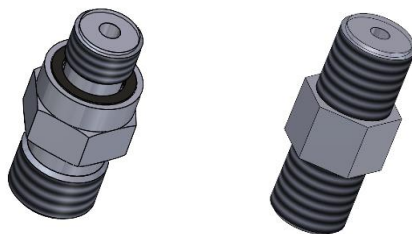
#### Pressure measurement of gasses:

In the case of measuring the pressure of a system with gasses, it is necessary to airtight connect the sensor to the system. The necessary precautions taken during the connection are depending on the amount of pressure that would flow through the system.

Since the thread at the pressure intake side of the P-05 does not include a sealing element, it is strongly advised to use an additional sealing material while connecting the sensor to the pressure system. Among those sealing materials belongs:

- **Teflon tape or pipe cord** – add the tape to the connection thread (clockwise to the direction of the thread)
- **Liquid anaerobic sealant** – clean the treated surface and apply the sealant to the thread. Connect the sensor to the system or adapter, and wait the recommended time until the sealant cures before filling the system with pressure
- **Connection with sealing** – in certain cases pressure connections are equipped with an o-ring (Figure 2) or a similar sealing element already in place. In this case, it is not necessary to use any other additional sealant.

G1/8" connection  
with O-ring



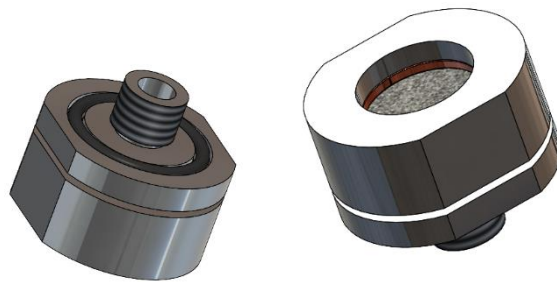
G1/8" connection  
without O-ring

**Figure 2:** Example of a connection adapter with and without sealing.

**Pressure measurement of liquids:**

In the case of measuring the pressure of a system with liquids, the same connection steps as by measurement of gasses are applied, however, care has to be taken to remove any air from the system including the sensor pressure intake. Presents of air in the system can result in non-reliable results from the measurement.

The sensor can be used as well to measure the pressure of a liquid or pore water pressure. In this case, we recommend that a porous stone would be used. In a case of a porous stone, it is necessary to saturate and immerse the stone/sensor for 24h in the medium that would be measured.



**Figure 3:** Porous stone adapter for measuring water height.

**For more information contact our sales team at [sales@sylex.sk](mailto:sales@sylex.sk)**

\* Specifications are subject to change without notice