SENSOR DOCUMENTATION	19/02/2009	PRESSURE	VDO pressure sensor
Notes: **VDO pressure sensor** technical documentation, dimensions and pinout. – **Version 1.03**			

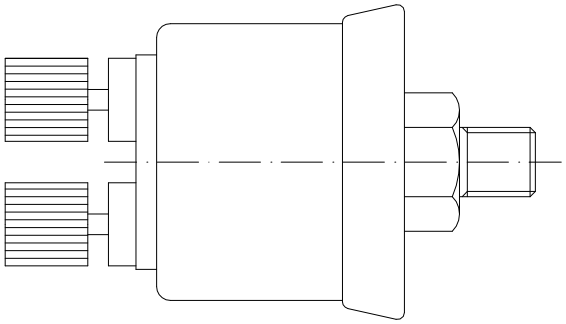


Figure 1: VDO pressure sensor (side view)

Introduction

This sensor is used to measure the Oil pressure.
It is composed of a M10 * 1 threaded cylinder, which has to be screwed to the engine, and two connectors in the upper part (pressure signal and GND).
If the threaded hole inside the engine is larger than the sensor's threaded cylinder, we suggest to use nipples.

We suggest to firmly screw it to the engine, to avoid possible unscrewings due to engine's vibrations.

General notes

If You have bought an AIM sensor, between pins 1 and 4 of Binder 719 male connector is mounted a **1,8kΩ 1%** resistor. **Please do not tamper** in any way the Binder connector, otherwise it will not work properly.
If, on the contrary, You bought a VDO sensor on your own, please **be sure it is a VDO sensor without warning contact, insulated return** and mount the resistor on your own between signal pin and V reference pin as specified in **Figure 2**.
Please refer to the following table to see **VDO sensors compatibility with AIM instruments**:

VDO Pressure sensor:	VDO Pressure sensors:	VDO pressure sensors:
• **without warning contact** • **insulated return**	• without warning contact • common ground	• with warning contact • common ground
YES	**NO**	**NO**

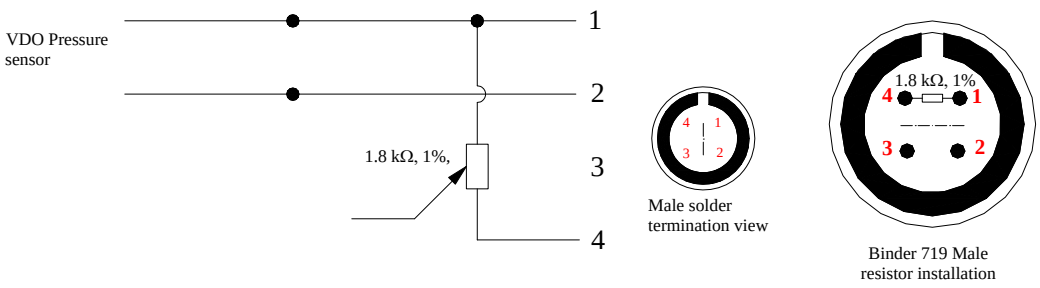


Figure 2: VDO pressure sensor with Binder 719 and resistor installation.

Software

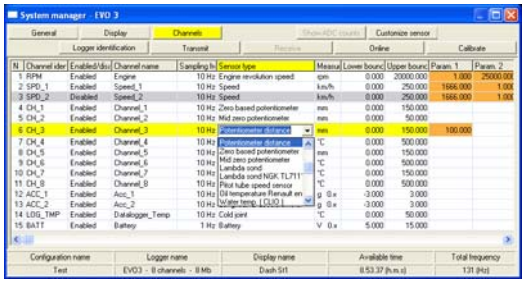
Once the VDO pressure sensor has been installed, it needs to be configurated. To correctly configure it, please use **Race Studio 2**, the software properly developed by Aim to configure its instruments and analyze stored data.

Race Studio 2

In **Race Studio 2** main window You can choose the instrument where you wish to install the airbox pressure sensor (EVO 3, MyChron 3 Gold CAR, MyChron 3 Gold XG…). Once selected the gauge, please press *"System Manager"* button.

Sensor configuration

In *"System manager"* main window, please press *"Channels"* button to set the sensors that you have installed on your vehicle. The following screenshot appears.



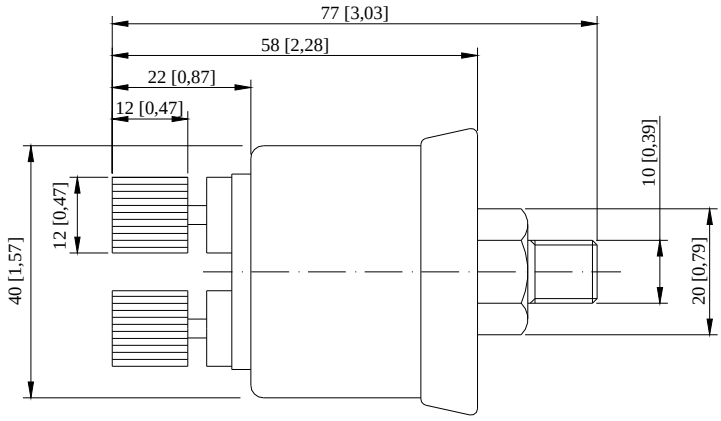
To set a sensor, please double-click in the box corresponding to *"Sensor type"* column and to "Ch_x" row (where x represents the channel number): a pop up menu like the one reported in the figure on the left appears.
You can choose among 3 different VDO pressure sensors:

- Pressure VDO 0-10 BAR
- Pressure VDO 0-5 BAR

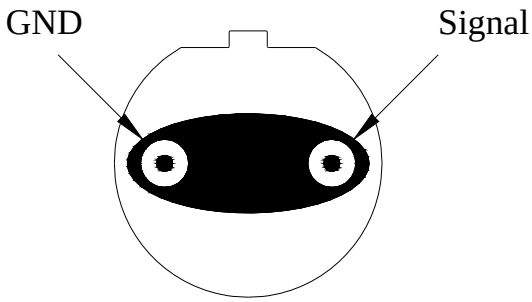
Please to set the proper VDO pressure sensor.

Once you have set the correct VDO pressure sensor, please transmit the configuration to your gauge pressing *"Transmit"* button.

Technical Notes



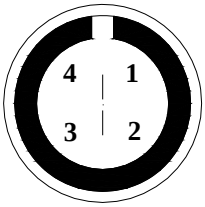
Dimensions in millimeters [inches]



VDO Pressure sensor – Top view

Connector pinout

Pin	Function	Pin	Function
1	Analog signal 0-500 mV	3	Not connected
2	GND	4	V reference



4 pins Binder 719 male connector: solder termination view

Technical characteristics

Electrical characteristics	Value
Operative range	0-5 BAR; 0-10 BAR
Cable length	450 mm
Thread	M10 * 1

Part Numbers

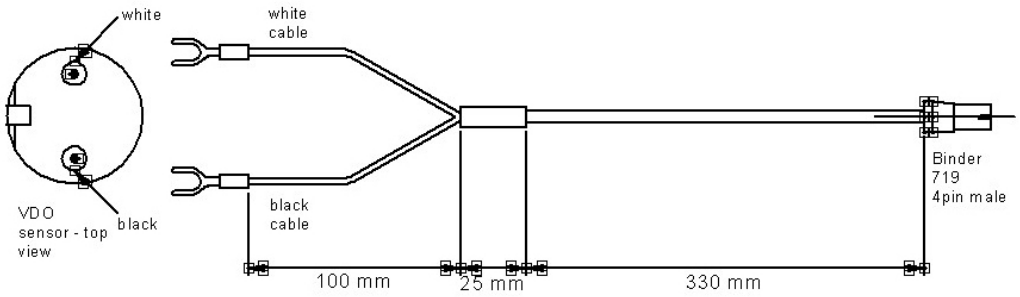
VDO pressure sensors part numbers are:

- 0-5 Bar pressure sensor **X05SNBO00**
- 0-10 Bar pressure sensor **X05SNBO05**

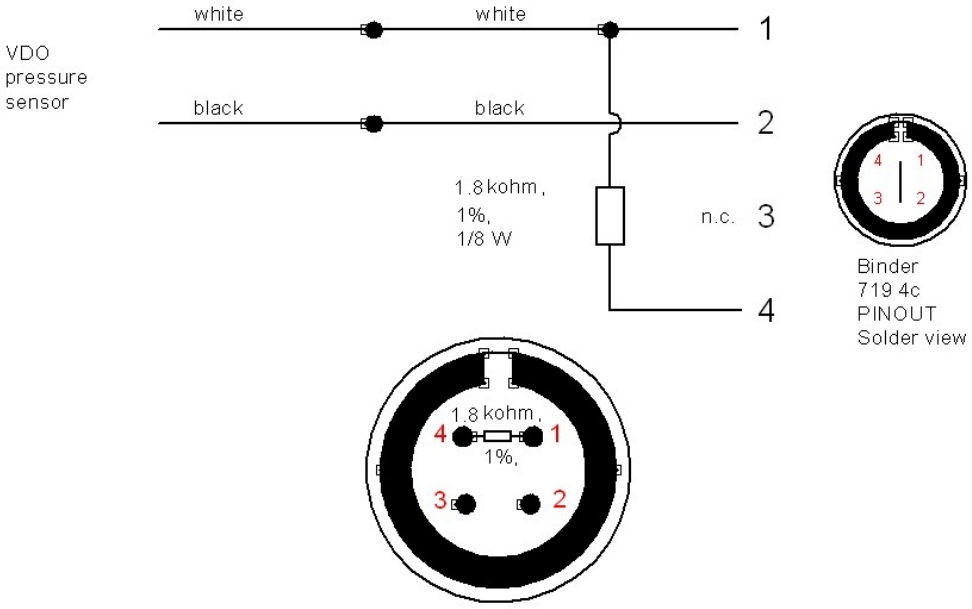
Pinout

N.rev. / Rev. N.	Descrizione / Description	Data / date	Firma / Sign	Contr. da / Ckd. by

VDO Pressure sensor with Binder 719



Cable PINOUT



Rif. / Ref.	Q.tà / Q.ty	Materiale / Material		N. articolo / Item N.	
Progettato da / Designed by	Contr. da / Ckd. by	Approvato da / Approved by	Nome file / File name	Data / Date	Scala / Scale
Racing Data Power		Titolo / Title: VDO Pressure sensor harness with Binder 719 connector			
		N. disegno / Drawing N.: 04.552.04		Rev. / Rev.: 2	Foglio / Sheet: 1 of 1