# PDS500G advanced automotive pressure transducer

*The basic information that is needed to create a custom input probe.*

Two hardware versions of the PDS500G relative pressure transducer are available. The earlier one has only one pressure input range, 500 psi. The latest version has two input ranges: 500 psi and 200 psi. So, the information provided below is about the latest hardware version. Do not take into account the 200 psi mode if it is not present in your sensor.

## PDS500G: 500 psi range

Input Pressure Range (psi): -14.5 to 500 psi

Input Pressure Range (bar): –1.0 to 34.5 bar

Output Voltage Range: -290 mV to 10.0 V

The conversion formula is: **Yout (mV) = 20 * X (psi)**

In other words for 500 psi mode, the conversion ratio is 20 mV/1 psi

The output voltage of the sensor with a perfect vacuum applied to the sensor is: -14.5 psi * 20 mV = - 290 mV

When no pressure is applied to the pressure input, the output will be zero or some voltage very close to zero volts.

500 psi full range = 10 V output voltage

## PDS500G: 200 psi range

Input Pressure Range (psi): -14.5 to 200 psi

Input Pressure Range (bar): –1.0 to 13.8 bar

Output Voltage Range: -290 mV to 10.0 V

The conversion formula is: **Y (mV) = 50* X (psi)**

In other words for 200 psi mode, the conversion ratio is 50 mV/1 psi

The output voltage of the sensor with a perfect vacuum applied to the sensor is: -14.5 * 50mV = - 725 mV

When no pressure is applied to the pressure input, the output will be zero or some voltage very close to zero volts.

200 psi full range = 10 V output voltage

If you have any difficulties please do not hesitate to contact us!