# DATAQ Voltage Output Industrial Grade Pressure Sensors

- ✓ Measure pressure from 100 PSI to 14500 PSI
- ✓ Made with 316 stainless steel and high temperature auto-grade plastic
- ✓ 0.5 – 4.5V linear output
- ✓ Accuracy: ±0.25%FS.
- ✓ Works for oil, fuel, water or air pressure
- ✓ High impact resistance to survive water hammer effects
- ✓ Rated IP65, IP67, IP68

DATAQ INSTRUMENTS

# DATAQ Voltage Output Industrial Grade Pressure Transducers

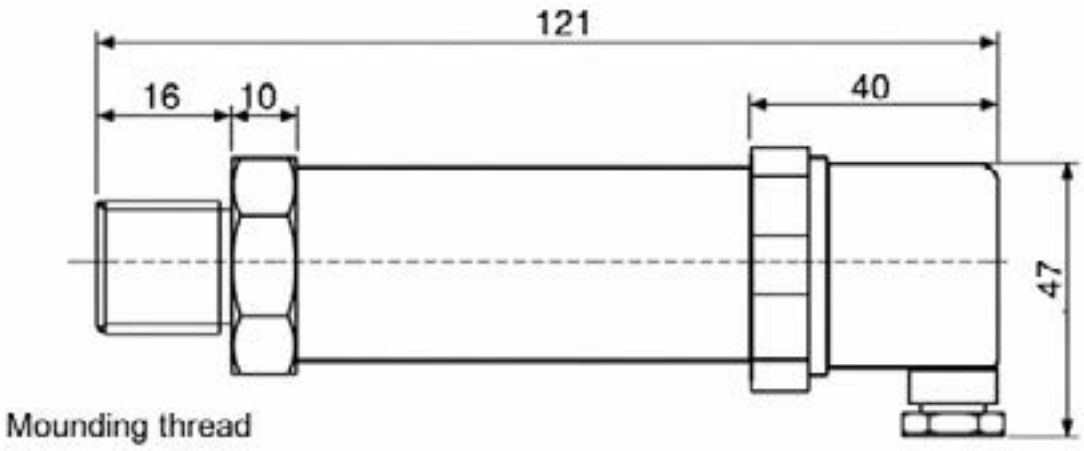
**Description**

The DATAQ industrial-grade pressure sensor measures up to 14,500 PSI with exceptional accuracy and impact resistance. It's ideal for monitoring oil, fuel, air and water pressure. Compatible with most standard pressure sensor applications, it also integrates seamlessly with data loggers for reliable data storage.

**Features**

- Measure pressure from 100 PSI to 14500 PSI
- Made with 316 stainless steel and high temperature auto-grade plastic
- 0.5 – 4.5V linear output
- Accuracy: 0.25%FS.
- Works for oil, fuel, water or air pressure
- High impact resistance to survive water hammer effects
- Rated IP65, IP67, IP68
- 1/4-18 NPT thread
- Gauge pressure
- Customization available on ranges, gauge or absolute pressure, sealing material, process connection, thread size, and/or supply voltage

## Dimensional Drawing




| Voltage (3 Wire) | |
|---|---|
| Red | Supply V+ |
| Black | Ground |
| Green | 0-4.5V Signal Output |

# Specifications

## 2000433 Voltage Pressure Transducers

| | |
|---|---|
| Pressure Type: | Gauge pressure |
| Measurement Range: | 100 PSI to 14,500 PSI |
| Process Media: | Air, Water, Oil, Fuel |
| Material: | 316 stainless steel and high temperature auto-grade plastic |
| Type of Sensor: | Oil-filled diffused silicon piezoresistive |
| Thread: | 1/4-18 NPT |
| Custom: | Customization available on anges, gauge or absolute pressure, sealing material, process connection, and/or supply voltage. |

## Electrical

| | |
|---|---|
| Output: | 0.5V – 4.5V linear voltage output |
| Supply Voltage: | 5V, 0.5W |
| Max Power: | 0.5W |
| Protection Class: | Rated IP65, IP67, IP68, depending on electric connection |

## Accuracy & Performance

| | |
|---|---|
| Accuracy: | ±0.25%FS 15-25°C<br>±0.5%FS -20 to 70°C |
| Burst Pressure: | For transducers of full range up to 1450 PSI, 4 times span<br>For transducers of full range 1500 to 10000 PSI, 17400 PSI |
| Overload Pressure: | For transducers of full range up to 1450 PSI, 2.5 times span<br>For transducers of full range 1500 to 10000 PSI, 14500 PSI |
| Long-term stability: | ± 0.25%FS/year |
| Compensation Temperature: | -10°C to 70°C |
| Ambient Temperature: | -40°C to 80°C |
| Temperature Effect on Zero: | Typical: ±0.03%FS/ºC<br>Maximum: ±0.05%FS/ºC |
| Temperature Effect on Sensitivity: | Typical: ±0.03%FS/ºC<br>Maximum: ±0.05%FS/ºC |
| ADC Response Time: | 100 ms |
| Insulation Resistance: | >100mΩ 500VDC |
| Electromagnetism Compatibility: | IEC60000-6-2<br>IEC61000-6-3 |
| Static Protection: | IEC61000-4-2 Level 4 |
| Surge Protection: | IEC61000-4-5 Level 3 |

## Housing

| | |
|---|---|
| Housing Material: | Stainless Steel 304, Cu, Al |
| Sealing Material: | Welded Diaphragm |
| Wetted Material: | Stainless Steel 316L |

## Wiring

| | |
|---|---|
| Wiring connector: | 3ft cable included |
| Wiring: | Red for +5V Supply Voltage<br>Black for GND<br>Green for OUT |

Logger inaccuracy not included in these specifications.

## Ordering Information

| Description | Order No. |
|---|---|
| **100 PSIG High Impact Pressure Transducer**<br>Measure gauge pressure from 0 to 100 PSIG, 0.5V – 4.5V linear voltage output | 2000433-100H |
| **1500 PSIG High Impact Pressure Transducer**<br>Measure gauge pressure from 0 to 1500 PSIG, 0.5V – 4.5V linear voltage output | 2000433-1500H |
| **5000 PSIG High Impact Pressure Transducer**<br>Measure gauge pressure from 0 to 5000 PSIG, 0.5V – 4.5V linear voltage output | 2000433-5000H |
| **10000 PSIG High Impact Pressure Transducer**<br>Measure gauge pressure from 0 to 1500 PSIG, 0.5V – 4.5V linear voltage output | 2000433-10000H |
| **14500 PSIG High Impact Pressure Transducer**<br>Measure gauge pressure from 0 to 14500 PSIG, 0.5V – 4.5V linear voltage output | 2000433-14500H |
| **Customizable Industrial-Grade High Accuracy Pressure Transducer**<br>Customized range, supply voltage, process connection and/or sealing material. 8 week lead time. | 2000433-CH |
| | |

## Accessories

| Description | Order No. |
|---|---|
| **DC/DC Converter for Sensors**<br>Allows you to power 5V rating sensor with a battery. Input voltage: DC8-35V, (12V/24V changes to 5V); Output parameter: DC5V 3A, 15W MAX | 101087-1 |
| **AC/DC Adapter**<br>AC Adapter for Sensor Excitation.: AC input: 100V-240V. DC output: 5V 2A. Cable length: 2.95ft. DC plug connector size: 5.5x2.5mm. Includes screw terminal connector. | 101099 |

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