

# P063 Piezoresistive Differential Pressure Transmitter

## Highly Sensitive Differential Pressure Transmitter



**New**  
Highly Sensitive

|                                    |   |                                     |                              |                     |
|------------------------------------|---|-------------------------------------|------------------------------|---------------------|
| Piezoresistive diaphragm<br>Sensor | bar<br>0 bar<br> <br>20 bar<br>Pressure | A.O<br>4 mA<br> <br>20 mA<br>Output | Liquid Gas<br>Media Measured | SUS 316L<br>Housing |
|------------------------------------|---|-------------------------------------|------------------------------|---------------------|

### Introduction

**eYc P063's** output signal from Wheatstone bridge on the sensing die has a good linear relationship with differential pressure, so the measured differential pressure could be measured precisely.

The whole product is used for differential pressure measurement of various gases and liquids in pipeline in many fields including petroleum, chemi-industry, power station and hydrology, etc.

### Feature

- Using piezoresistive differential pressure sensor, 316L isolated diaphragm
- Welding and full-sealed construction, full stainless housing, compact size, easy installation
- Well overload capacity and shock effect, nicer long-term stability with reasonable price

### Applications

- Measuring differential pressure for liquid and gas
- For research and development, laboratory, and processing engineering
- Mechanical equipment, water plant, air equipment, chiller unit
- Differential pressure measurement of gases and liquids in pipelines such as petroleum, chemi-industry, power station and hydrology, etc.

## Specification

### Input

|                 |  |
|-----------------|--|
| Sensor Type     | Piezoresistive diaphragm                       |
| Measuring Range | 0 ... 20 bar                                   |
| + Overpressure  | ≤ 10 bar : 2 x F.S. ;<br>> 10 bar : 2 x F.S.   |
| - Overpressure  | ≤ 10 bar : 1 x F.S. ;<br>> 10 bar : 0.5 x F.S. |

### Output

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| Output                              | 4 ... 20mA                            |
| Signal Connection                   | 2-wire                                |
| Load Resistance<br>(current output) | ≤ (power supply - 10 V) /<br>0.02 A Ω |
| Output Calibration<br>(ZERO & SPAN) | ± 10 % of zero-point and full-scale   |
| Response Time (10 ... 90%)          | ≤ 5 ms                                |

### Temperature Influence ( at + 35 °C )

|                       |   |
|-----------------------|---|
| Zero-Point Error      | ≤ 2 bar : ± 0.75 % of F.S. ;<br>Max. : ± 1.25 % of F.S. |
|                       | > 2 bar : ± 0.5 % of F.S. ;<br>Max. : ± 0.75 % of F.S.  |
| Measuring Range Error | ≤ 2 bar : ± 0.75 % of F.S. ;<br>Max. : ± 1.25 % of F.S. |
|                       | > 2 bar : ± 0.5 % of F.S. ;<br>Max. : ± 0.75 % of F.S.  |

### Accuracy

|          |                 |
|----------|-----------------|
| Accuracy | ± 0.5 % of F.S. |
|----------|-----------------|

### Environment

|                         |                                  |
|-------------------------|----------------------------------|
| Media Measured          | Liquid / Gas ( provide coating ) |
| Temp. of Media Measured | 0 ... + 70 °C                    |
| Ambient Temperature     | 0 ... + 70 °C                    |
| Ambient Humidity        | 0 ... 100 %RH ( non-cond. )      |
| Storage Temperature     | - 40 ... + 70 °C                 |

### Electric

|                        |   |
|------------------------|---|
| Power Supply           | 10 ... 30 VDC                                       |
| Current Consumption    | ≤ 27.5 mA   |
| Overvoltage Protection | < 33 VDC  |
| Electric Connection    | DIN 43650 ABS plug ;<br>M12 - 4 PIN metal connector |

### Installation

|              |      |
|--------------|------|
| Installation | Duct |
|--------------|------|

### Protection

|                     |  |
|---------------------|--|
| Protection Rating   | DIN 43650 : IP65 ;<br>M12 - 4 PIN metal connector : IP67 |
| Electric Protection | ⊙Polarity protection ⊙Over-voltage<br>⊙Short-circuit     |
| Shock Effect        | ≤ ± 1 % at 3 gRMS · 30Hz ... 2000Hz                      |

### Certification

|               |    |
|---------------|----|
| Certification | CE |
|---------------|----|

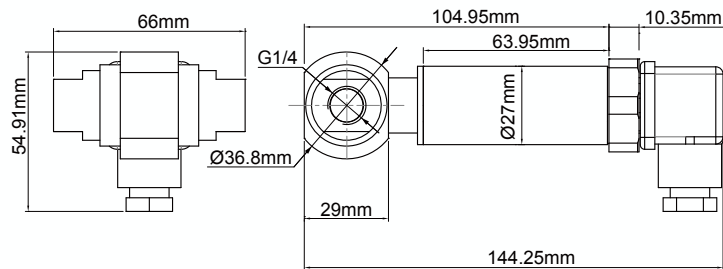
### Material

|                  |                             |
|------------------|-----------------------------|
| Housing          | SUS 316L                    |
| Wetted Parts     | SUS 316L                    |
| Sensor           | SUS 316L                    |
| Connector        | SUS 304                     |
| Sealing Material | VITON                       |
| Weight           | 410 g ( without connector ) |

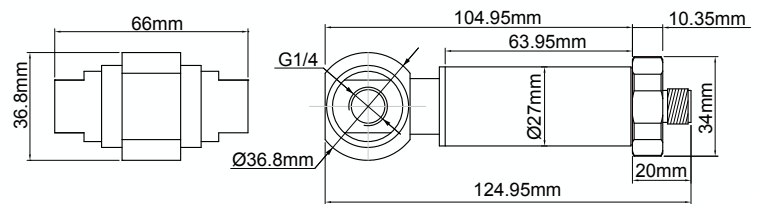
## Ordering Guide

|                |  |   |  |   |   |   |        |
|----------------|--|---|--|---|---|---|--------|
| Item           | P063   | - | 21   | 1 | 0 | 0 | 1      |
| Pressure Range | 0.1 bar<br>0.2 bar<br>0.4 bar<br>0.6 bar<br>1.0 bar<br>2.5 bar<br>4.0 bar<br>6.0 bar<br>10 bar<br>16 bar |   | 01<br>02<br>04<br>06<br>11<br>13<br>14<br>16<br>21<br>22 |   |   |   |        |
| Output         | 4 ... 20 mA  |   |  | 1 |   |   |        |
| Power Supply   | 10 ... 30 VDC  |   |  |   | 0 |   |        |
| Connect Thread | Housing G 1/4" Inside thread   |   |  |   |   | 0 |        |
| Connector      | DIN 43650 ABS plug<br>M12 x 1 Metal Connector  |   |  |   |   |   | 1<br>2 |

## Dimension



DIN 43650 ABS plug



M12 x 1 Metal Connector

## Diagram

