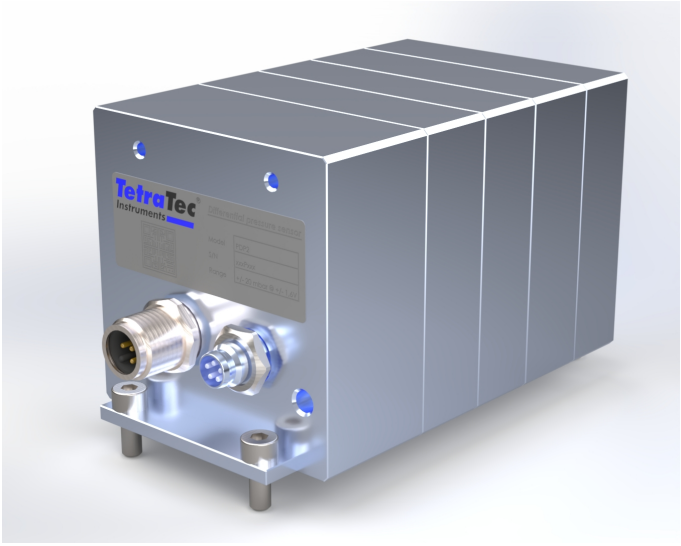
PDP2.flange Digital and Analog Combined Pressure Transducer for Differential and Static Pressure

Stand: 04.02.2026



The digital combined pressure transducer PDP2.flange for differential and static pressure offers exceptional features in a practical flange housing.

- Process-safe sealing through flange-mounted housing
- Internal volumes reduced to a minimum
- Capacitive differential pressure measurement
- Very high overload resistance of the differential pressure cell: more than 1000× the measuring range
- Extremely fast response to pressure changes
- Low position dependency of the pressure cells
- Sensor can be operated bidirectionally
- Suitable for flow measurement with a Laminar Flow Element (LFE)
- Temperature compensation from 10 to 50 °C
- Additional analog signal (±2 V)

Specifications

General

Digital output signal:	Modbus-RTU
Analog output signal:	-2...+2 V
Supply voltage:	24 VDC ± 20 %
Digital connection:	M12 5-Pol [2)]
Analog connection:	M8, 5-Pol [2)]
Operating temperature:	+10.. +50 °C
Media:	Air, inert gases, non-condensing
Storage temperature:	-20.. +60 °C

Differential Pressure Cell

Measuring principle:	Capacitive – without transmission medium
Material:	Ceramic
Pressure against atmosphere:	Up to 10 bar relative
Measuring ranges:	± 1 / 2 / 10 / 20 mbar
Linearity deviation:	Typ. ± 0,025 % f.S.
Overload limits:	6 bar from plus to minus side.[1)] 1 bar from minus to plus side.
Repeatability:	Typ. 0,015 % f.S.
Hysteresis:	Typ. 0,025 % f.S.
Speed:	T_{90} ca. 5 ms
Temperature compensated:	+10 .. +50 °C

Static Pressure Cell

Measuring principle:	Piezoresistiv
Material:	Stainless steel 316
Measuring ranges absolute:	1/ 7 bara
Measuring ranges relative[3)] :	± 0,07/1/ 7/20 0,07bar
Linearity deviation:	Typ. ± 0,025 % f.S.
Overload limits:	6× measuring range
Repeatability:	Typ. 0,010 % f.S.
Hysteresis:	Typ. 0,010 % f.S.
Speed:	T_{90} ca. 5 ms
Temperature compensated:	+10 .. +50 °C

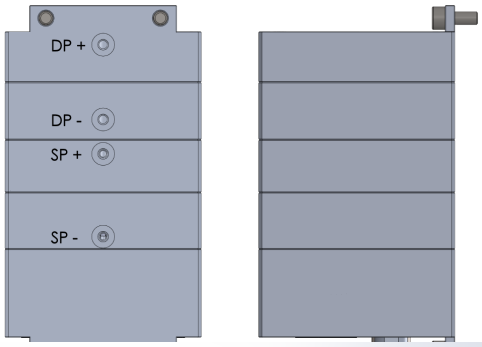
[1)]: Please refer to the manual regarding possible misuse.
[2)]: Pin assignment can be found in the manual.
[3)]: Smallest possible pressure: −1 bar

Connection Options

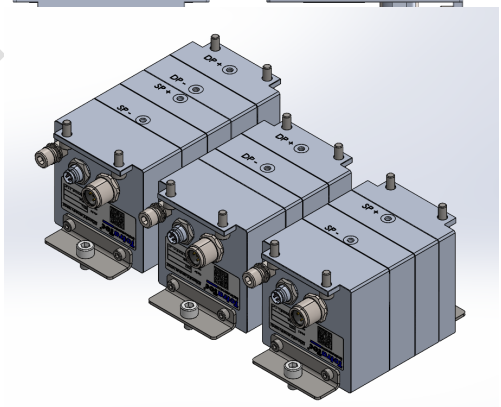
A special feature of the sensor is the practical flange housing for process-safe adaptation:

Bottom side with pressure ports:

- Flange mountable with O-ring 1.50 × 3.50 -- or
- M3 internal thread



Flexibly combinable with: PDP2.Combi, PDP2.DP, PDP2.SP



Example: LFE

Material:	Aluminium
Weight:	approx. 520 g
Protection class:	IP64

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Ordering Information

Order No.: *PDP2.flange aaabcc*

aaa **Static pressure measuring range**

000			No static pressure cell installed
001[1]	-0,07..	0,07 bar	Static pressure
010	-1..	1 bar	Static pressure
070	-1..	7 bar	Static pressure
200	-1..	20 bar	Static pressure

b **Sensor configuration**

n	No static pressure cell
r	Relative pressure cell
a	Absolute pressure cell[2]

cc **Differential pressure measuring range**

00			No differential pressure cell installed
01	-1..	1 mbar	Differential pressure
02	-2..	2 mbar	Differential pressure
10	-10..	10 mbar	Differential pressure
20	-20..	20 mbar	Differential pressure

Accessories

Order Number	Description
PDP2.Digital_Kabel	M12 digital cable
PDP2.Analog_Kabel	M8 analog cable
PDP2.flange_Block	Flange plate with G1/8 connections

1 Only available as relative pressure variant
2 Measuring range start: 0 mbar

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