PRESSURE

TFT Technology

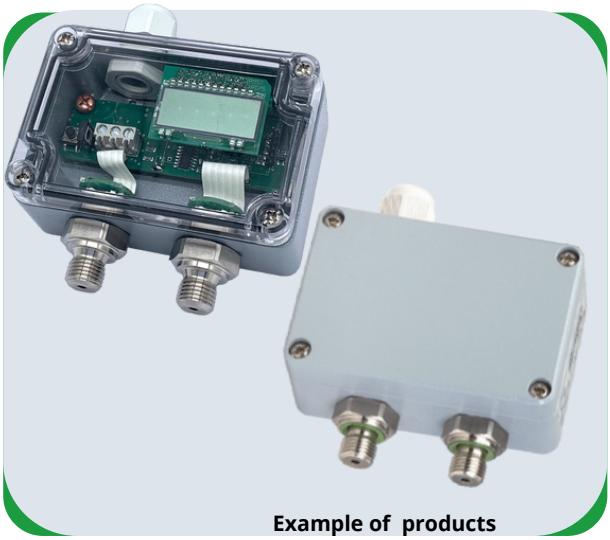
PRIGNITZ MIKROSYSTEMTECHNIK

PMP-D211.01, PMP-D211.02

DIFFERENTIAL PRESSURE TRANSMITTERS

DATASHEET

- OPTIMISED FOR HIGH PRESSURE MEASUREMENT
- APPLICABLE FOR GASEOUS AND LIQUID MEDIA
- MICROPROCESSOR SIGNAL CONDITIONING
- DIFFERENCIAL TO LINE PRESSURE RATIO UNTIL 1:10
- PRESSURE OFFSET CORRECTION IS AVAILABLE



Example of products

MAIN FEATURE

- **Differential pressure ranges:** from -1...1 bar to 0...1000 bar
- **Difference Line Pressure:** until 1:10
- **Mechanical connections*:** G 1/4" Form E; 1/4"-18 NPT
- **Housing PMP-D211.01:** 100x66x45 mm IP65 with transparent cover
- **Housing PMP-D211.02:** 100x66x50 mm IP65 with PC grey cover
- **Electrical connection:** PCB Mount Terminal Block,3-pole
- **Accuracy (25°C):** typ ≤ 0.5% FS max 1.5% FS

*others on request

DESCRIPTION

Series of differential pressure transmitters for industrial applications with high accuracy requirements over a wide temperature range, designed to measure pressure differences in air and liquids. These pressure transmitters are used in pneumatics, hydraulics and process engineering.

The fully digital solution allows the measuring ranges to be scaled from 1:1 to 1:10 in relation to the line pressure and differential pressure.

The differential pressure transmitter allow zero point correction via a push button on the printed circuit board and changing the polarity of the pressure ports via Jumper on the printed circuit board.

APPLICATION

ENERGY

INDUSTRIAL PROCESS CONTROLE

HVAC

BUILDING AUTOMATION SYSTEMS

TECHNICAL SPECIFICATIONS

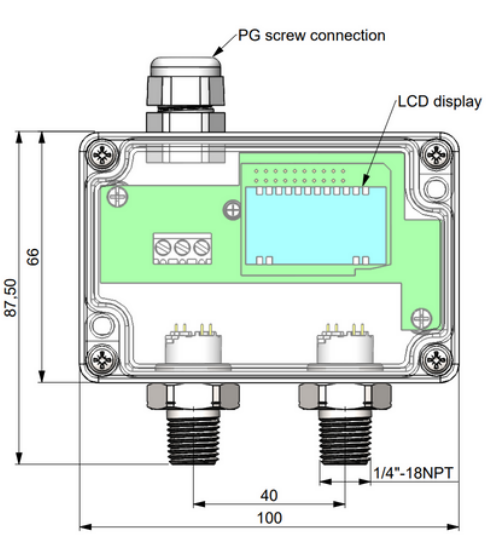
INPUT PARAMETERS			
Pressure type	gauge		
Mechanical connections *	G 1/4" Form E; 1/4"-18 NPT		
Wetted parts	stainless steel 17-4 PH		
Tightening torque	typ 25 Nm		
Housing PMP-D211.01	100x66x45 mm IP65 with transparent cover		
Housing PMP-D211.02	100x66x50 mm IP65 with PC grey cover		
OUTPUT SIZES			
Electrical connections	PCB Mount Terminal Block,3-pole		
Output signal** Supply voltage Load resistance	4...20 mA 3 wires 10...30 V < (Vsupply-10)V/0.02 A (Ohm)	0/1...5 V 10...30 V ≥ 2 kOhm	0...10 V 14...30 V ≥ 2 kOhm
PERFORMANCE CHARACTERISTICS			
Accuracy (25°C)	typ ≤ 0.5% FS max 1.5% FS		
Overall accuracy (- 10°C...80°C)	typ ≤ 5 % FS		
Long-term stability	≤ 0.2 % FS per year in referential conditions		
Ambient temperature	- 20...+ 80°C		
Medium temperature	- 25...+ 120°C		
Storage temperature	- 20...+ 80°C		
Protection class	IP65		
Zero point setting	manually via a push button on the printed circuit board		
Range switching	manually via Jumper 2x range		
Pressure connections swaping	manually via Jumper on the printed circuit board		
ELECTRICAL PROTECTION			
Reverse polarity	yes		
OTHER			
Weight***	~ 250 g		

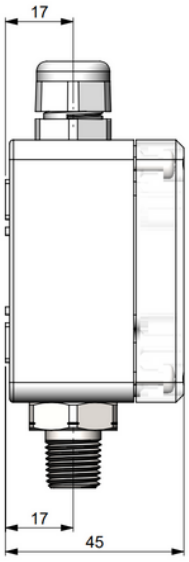
*other on request

**output is calibrated at zero and full-scaled

***depend of product version

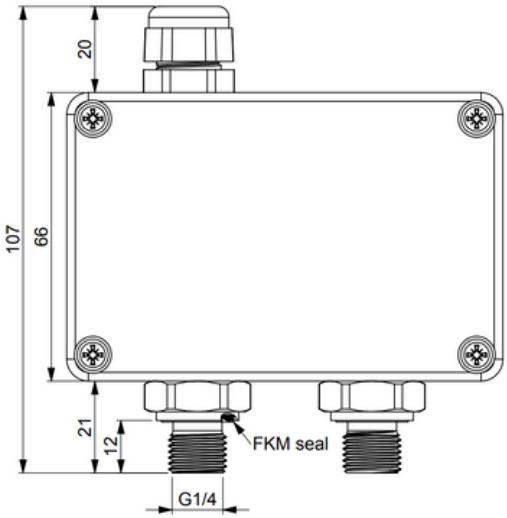
PMP-D211.01: PRODUCT CONSTRACTION

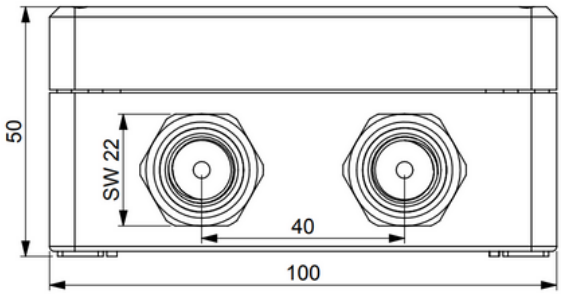




All dimensions are in mm

PMP-D211.02: PRODUCT CONSTRACTION





All dimensions are in mm

ELECTRICAL CONNECTION

Refer to the Installation manuals for detailed information on electrical connections.

Befor installation and operation, ensure that the appropriate pressure sensor has been selected in terms of pressure range, design and specific measuring conditions. Non compliance can result in serious injure and/or damage to the equipment.

WARNING: Prignitz Mikrosystemtechnik reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate testes, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.

APPROVALS CERTIFICATE

CE Compliance: EMC directive 2014 / 30 / EU according in EN 61326-2-3
RoHS guideline: 2011/65/EU
Approved according to the European Directive EC79/2009

PRIGNITZ-Mikrosystemtechnik GmbH is certified acc. to ISO 9001. We offer a multitude of products compliant with ATEX, IECEx, CSA, and other worldwide relevant qualifications.

CUSTOMIZED SOLUTIONS

An indisputable advantage of the products from Prignitz Mikrosystemtechnik is that in addition to the specified parameters, a variety of specific customer requests can be implemented:

- EX versions are available for use in hazardous areas (ATEX, IECEx, CSA)
- other process and electrical connections available in a wide range of options
- analog output signals can be customized upon request.

Feel free to ask us. We are ready to implement individual solutions for you.

TRANSPORT, PACKAGING AND STORAGE

Transport
Check the pressure transmitter for any damage that may have been caused during transportation. Obvious damage must be reported immediately.

Packaging and storage
Do not remove packaging until just before mounting.
Keep the packaging as it will provide optimum protection during transport (e.g. change in installation site, sending for repair).

Permissible conditions at the place of storage:
- Storage temperature: -20 ... +80 °C

DISMOUNTING, RETURN AND DISPOSAL

Dismounting
Physical injuries and damage to property and the environment caused by hazardous media Upon contact with hazardous media (e.g. oxygen, acetylene, flammable or toxic substances), harmful media (e.g. corrosive, toxic, carcinogenic, radioactive), and also with refrigeration plants and compres- sors, there is a danger of physical injuries and damage to property and the environment.
- Should a failure occur, aggressive media with extremely high temperature and under high pressure or vacuum may be present at the instrument.
- Wear the requisite protective equipment.

Dismounting the instrument
- Depressurise and de-energise the pressure transmitter.
- Disconnect the electrical connection.
- Unscrew the pressure transmitter with a spanner using the spanner flats.

Return
Strictly observe the following when shipping the instrument:
All instruments delivered to Prignitz Mikrosystemtechnik must be free from any kind of hazardous substances (acids, bases, solutions, etc.) and must therefore be cleaned before being returned.

Edition version: D/PMP-D211.01/PMP-D211.02/Rev.1/Jan.2024/ENG

HOW TO ORDER

PMP-D211.0X-XX- (XX..XX)X-XX-XX-XX

TYPE

D = Differential pressure transmitter

FAMILY & TECHNOLOGY

211 = TFT Technology with steel 17-4 PH

DISPLAY

1 = with Display
2 = without Display

ELECTRICAL OUTPUT

I3 = 4-20mA 3L
0U5 = 0-5V
1U5 = 1-5V
U10 = 0-10V

DIFFERENTIAL PRESSURE RANGE

e.g.
(-1...1)
(0...60)
(0...400)

MAX. LINE PRESSURE

e.g.
4
100
500

UNIT

01 = bar
16 = psi

ELECTRICAL CONNECTION

17 = cable clamp connection (PCB Mount Terminal Block,3-pole)

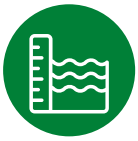
PROCESS CONNECTIONS

00 = Customized
01 = G1/4"A Form E DIN 1179-2
08 = 1/4"-18NPT

PRIGNITZ

MIKROSYSTEMTECHNIK


PRESSURE


LEVEL


TEMPERATURE


CALIBRATION & SERVICE

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