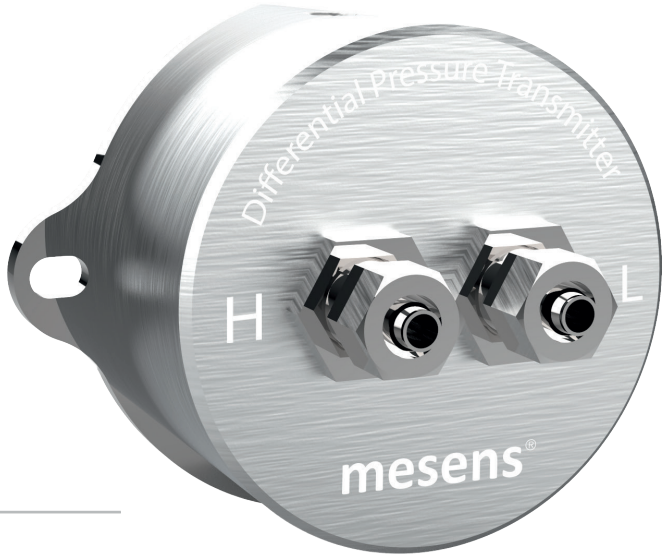
Differential Pressure Transmitter

MPS590



GAS

OVERVIEW

Operation

MPS590 series differential pressure transmitters are suitable for non-corrosive gas pressure measuring and controlling in the moderate media, with sensor probe working very well with long term stability at the high temperature of 85°C.
The measuring ranges from 0 to 10 mbar to the maximum pressure range of 1000 mbar. The case and wetted parts comprise aluminium and are thus resistant to vibration and shock. MPS590 transmitters can be use for negative pressure,positive pressure and differential pressure as easily.

Features

- Compact design
- Protection type IP65
- Shock resistant aluminium design
- Wide measuring range
- Simple installation
- Various output signal

Application

- Air conditioners
- Filtration
- Level measurement
- Pressure loss measurement
- HVAC

OPERATING DATA

Operating Temp. Range	-20...+85°C
Compen. Temp. Range	0...+50°C
Stability	0.2% of FS/year
Accuracy	±0.5% FS
Zero Temp. Coefficient	0.03% FS/°C
Zero-Span Balance	±5 % of Full scale
Enclosure	IP65
Process Connection	Hose connection or thread

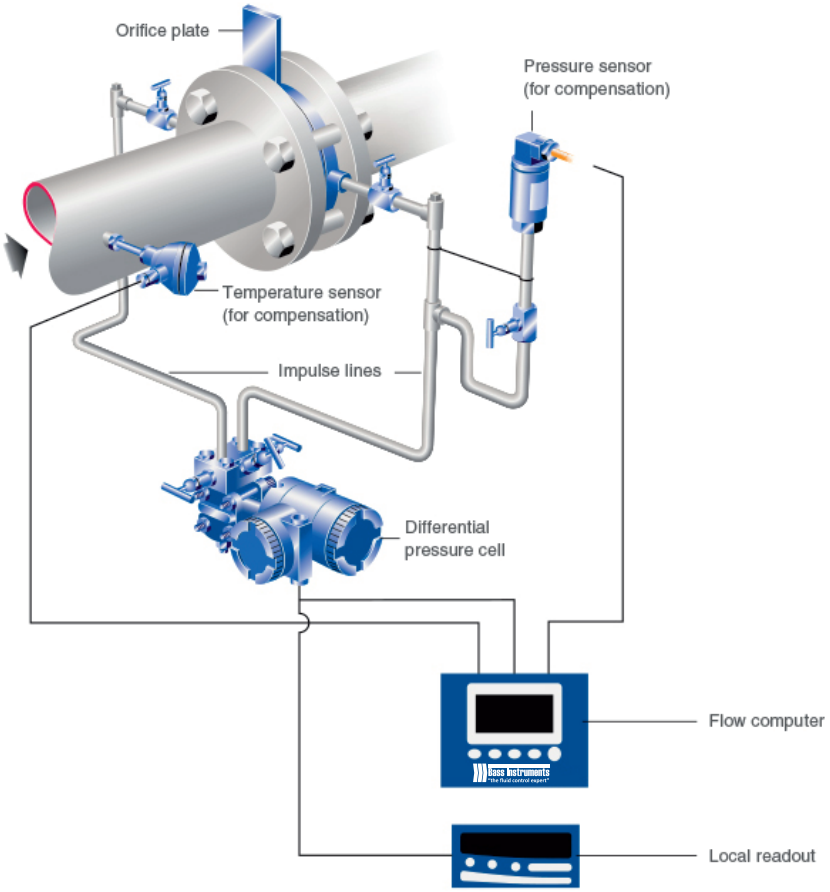
MEASURING RANGES

Max Pressure Range	0-1000 mBar

MATERIALS

Body	Aluminum
Others	On request

INSTALLATION



1. Select the Right Gauge

Before you pull out a wrench, first make sure you have the right type of gauge for the application. The pressure gauge you choose must be the correct one for the:

- Expected pressure range to be measured. The selected range should be double the operating range.
- Process media compatibility.
- Process temperature
- Severe operating conditions (e.g., vibrations, pulsations, pressure spikes).
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However, even if you install the gauge perfectly, you could face the same problems you had before the installation if the gauge isn't the right one for the job.

2. Apply Force on Wrench Flats

Once you've chosen the correct gauge, pay attention to how you install the gauge. Rather than turning the case by hand, use an open-end wrench and apply force to the wrench flat. Applying the force through the case could damage the case connection as well as the gauge internals. Not applying sufficient torque could result in leaks.

3. Seal the Deal

Notice the type of threads on the gauge before you seal it. If the gauge has parallel threads, seal it using sealing rings, washers. If the gauge has tapered threads, additional means of sealing, such as PTFE tape, are recommended. This is standard practice for any pipe fitter because tapered threads do not provide complete sealing on their own.

4. Use a Clamp Socket or Union Nut with Straight Thread

When tapered threads are used, the installer has the luxury of adjusting the gauge even after sufficient torque has been applied. This allows for convenient orientation of the gauge face. However, with straight threads the face orientation is not adjustable once it bottoms out. You start by tightening the gauge by hand. As soon as you encounter a resistance, apply an open-end wrench to the wrench flat and continue turning the gauge. At this point you have approximately one turn left to put the gauge into the desired position.

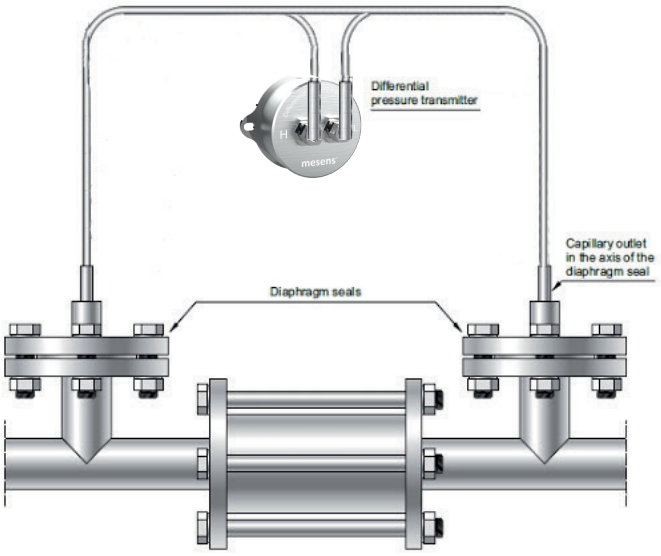
5. Leave Space for Blow-out

For personnel safety, some gauges come with a safety pattern design consisting of a solid wall between the front of the gauge and the Bourdon tube, and a blow-out back. In the event of a pressure build-up inside the case or a catastrophic Bourdon tube rupture, all the energy and release of media will be directed to the back of the gauge, thus protecting the people reading the gauge. In order for the safety device to function properly, it is important to keep a minimum space of 1/2 inches. Process gauges come standard with integrated pegs to insure this distance when mounting the gauge against a surface.

6. Vent the Gauge Case

Some gauges come with a small valve on top of the case. Users who don't understand the purpose of the valve are confused about why it's included. During shipment, liquid-filled gauges can go through temperature changes that create internal pressure build-up. This can cause the gauge pointer to be off zero. When installing the gauge, open the compensation valve to allow this pressure to vent. It should then be closed again to prevent any external ingress. After you mount the gauge, set the compensating valve from CLOSE to OPEN.

A pressure gauge can do its job only if it's installed properly. Whether you're an operator or a maintenance technician, use these tips for proper gauge installation to make sure your gauges perform as they should. Contact Bass Instrument's technical support team if you have questions about properly installing gauges.



ELECTRICAL DATA

Output	2 wires, 4-20 mA
Option	0-5 VDC or 0-10 VDC Supply shoud be 14 VDC min
Power Supply	10-36 VDC power
Electrical Connection	Cable connection

WIRING

4-20 mA		0-10 VDC or 0-5 VDC	
Cable Colour	Description	Cable Colour	Description
RED	Supply V+	RED	Supply V+
GREEN	Output +	BLUE	Supply V-
		YELLOW	Output +

MEASURING RANGES

Code	Range	Overpressure Range	Code	Range	Overpressure Range
001	0...10 mBar	50 mBar	007	0...160 mBar	800 mBar
002	0...16 mBar	80 mBar	008	0...250 mBar	1250 mBar
003	0...25 mBar	125 mBar	009	0...400 mBar	2000 mBar
004	0...40 mBar	200 mBar	010	0...600 mBar	3000 mBar
005	0...60 mBar	300 mBar	011	0...1000 mBar	5000 mBar
006	0...100 mBar	500 mBar	012	XXX	Please specify

ORDERING

MPS590							Differential Pressure Transmitters
Output	420						4-20 mA
	005						0-5 VDC
	010						0-10 VDC
Measuring Range		XXX					Please see “Measuring Ranges Table”
Pressure Type			01				Absolute
			02				Vacuum
			03				Positive
			04				Differential Pressure
Process Connection				01			G 1/4"
				02			M12x1,5
				03			8 mm hose connection
Electrical Connection					005		Cable length 0.5 m (standard)
Hazardous Area						N	None
						Xi	II 1/2G Ex ia IIC T4 Gb(Ga)

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