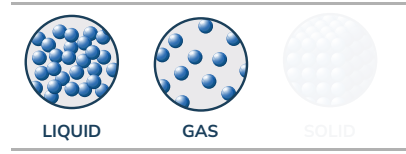


MSP3100L

Differential Pressure Transmitter



OVERVIEW

Operation

The MSP3100L Smart Differential Pressure Transmitter is a micro processor-based high performance transmitter, which has flexible pressure calibration and output, automatic compensation of ambient temperature and process variable, configuration of various parameters.

Application

- Level, volume or mass measurement in liquids.
- Working with detecting element
- Tanks
- Oil, petrochemical and chemical industries
- Pulp and paper
- Machinery and shipbuilding
- Semiconductors
- For measurement of minute pressure changes (tasimetry) in furnaces, etc.

Features

- Long term stability
- Flexibility
- High sensitivity
- Continuous Self-Diagnostic Function
- Automatic Ambient Temperature Compensation
- Fail-mode Process Function
- High accuracy
- High reliable
- LCD display



OPERATING DATA

ProcessTemperature Limit

-40...120°C

Ambient Temperature

-40°C...85°C

Storage Temperature Limit

-40°C...85°C

Stability

±0.25% of URL for 5 years

Accuracy

±0.075% URL

Enclosure

IP67

Humidity Drift

0-100% relative

Temperature Drift

±0.03% of URL/10°C

Overpressure

Full scale ranges x3

Weight

4 kg (without connection)

Turndown Ratio

10:1

Connection

Flanged

MEASURING RANGES

Overpressure Range

0-300 bar

MATERIALS

Wetted Parts

AISI316

Diaphragm

AISI316L

Housing

Aluminum

ELECTRICAL DATA

Output

2 wires, 4-20 mA

2 wires, 4-20 mA+HART MODBUS
(no analog output)

Power Supply

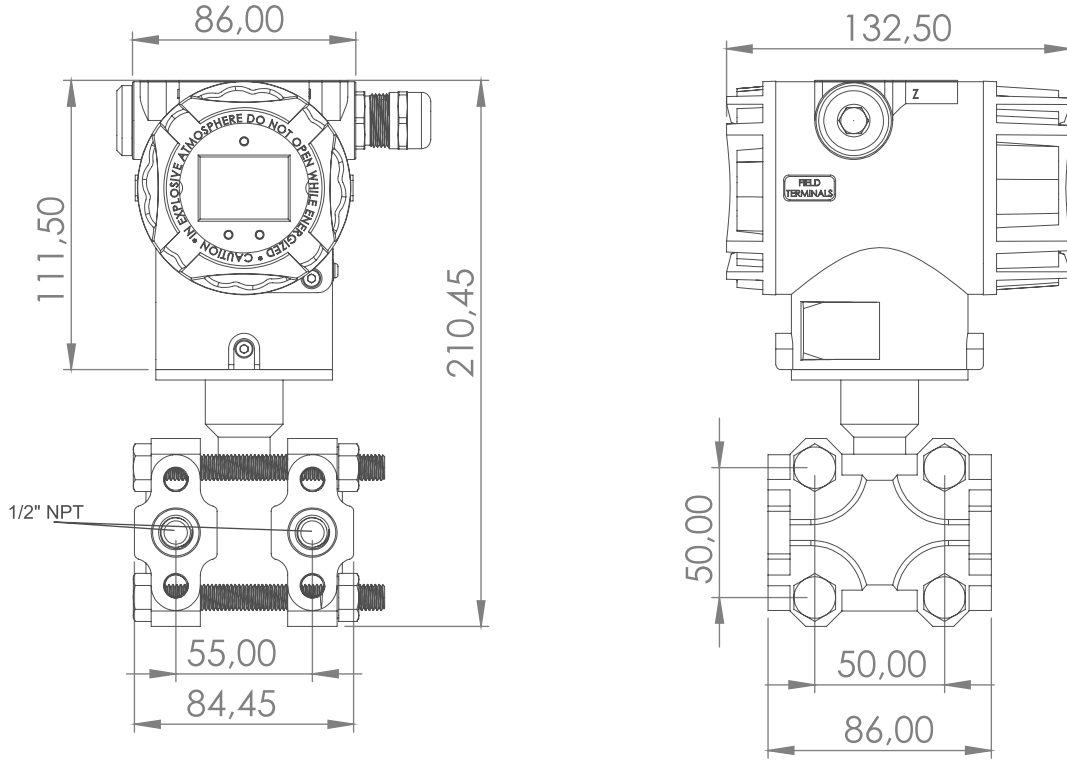
10.5-55 VDC power

Electrical Connection

M20x1.5 - Aluminium or AISI316SS as optional



TECHNICAL DRAWINGS AND DIMENSIONS



MEASURING RANGES

Code	Range (DIN Flange)	Unilateral Overpressure	Static Pressure
001	-10...+10 mbar	160 bar	160 bar
002	-60...+60 mbar	160 bar	160 bar
003	-400...+400 mbar	160 bar	160 bar
004	-1...+1 bar	160 bar	250 bar
005	-2,5...+2,5 bar	160 bar	250 bar
006	-10...+10 bar	160 bar	400 bar
007	-30...+30 bar	160 bar	400 bar



MSP3100-LFD

(For flush diaphragm seal and direct mount type transmitter)

**MSP3100-LED**

(For extended diaphragm seal and direct mount type transmitter)

**MSP3100-LFC**

(For flush diaphragm seal and capillary two remote type transmitter)

**MSP3100-LEC**

(For extended diaphragm seal and capillary two remote type transmitter)

**MSP3100-LFS**

(For flush diaphragm seal and capillary one remote type transmitter)

**MSP3100-LES**

(For extended diaphragm seal and capillary one remote type transmitter)



ORDERING

Model	
MSP3100L	Differential Pressure Transmitter

Type	
LFD	For flush diaphragm seal and direct mount type transmitter
LED	For extended diaphragm seal and direct mount type transmitter
LFC	For flush diaphragm seal and capillary two remote type transmitter
LEC	For extended diaphragm seal and capillary two remote type transmitter
LFS	For flush diaphragm seal and capillary one remote type transmitter
LES	For flush diaphragm seal and capillary one remote type transmitter

Approval	
N	For none-hazardous areas
Xi	II 1/2G Ex ia IIC T4 Gb(Ga)

Output	
H	4-20 mA + HART
M	RS-485 MODBUS

Display	
A	No display
L	LCD

Measuring Range	
XXX	Please see "Measuring range table"

Calibration	
1	Sensor range, mBar/Bar
2	Sensor range, kpa/Mpa
3	Sensor range, mmH2O/mH2O
4	Sensor range, psi

Diaphragm Material	
1	AISI 316
2	Alloy C-276
X	On request

Flange Rating	
AXX	ANSI flanged (Example; Class 150 = A150)
PXX	DIN flanged (Example; PN16 = P16)

Flange Size	
XXX	Please specify flange dimension in order as example ; DN50(2") = 50

Flange Material	
04	AISI304
16	AISI316
HC	Hastelloy C

Extended Length	
N	None
XX	Please specify in order as unit is mm (only for extended type transmitter)

Capillary Length	
N	None
XX	Please specify in order as unit is m (only for capillary type transmitter)

Fill Fluid	
2	Silicone 200 (-45~205°C)
7	Silicone 704 (0~300°C)
N	None

