

## Main Specifications

▼Type  
Standard / Multi-planar

▼Process connection  
Material: SS304  
1/4" -18" NPT  
Option: 1/2" -14" NPT  
Process adapter

▼Electric connection  
1/2" -14" NPT (F)  
G1/2" (Option)

▼Pressure range  
Please refer to the table

▼Pressure units  
kPa / kg/cm<sup>2</sup> / bar / psi / inH<sub>2</sub>O / mmH<sub>2</sub>O / inHg

▼Ambient temperature  
-40~85°C

▼Media temperature  
-40~120°C

▼Ambient humidity  
5~100%RH

▼Protection level  
IP67

▼Explosion-proof level (options)  
Flameproof Exd II CT6 / T5 / T4  
Intrinsic safety Exia II CT6

▼Accessories  
Angle / Flat type mounting bracket  
Material: SS304  
With U-bolt for 2" pipe

## Other Specifications

▼Case  
Aluminum alloy / SS316 (option)

▼Cover O-ring  
Viton / PTFE

▼Screen display (option)  
5-digit LCD display

▼Signal output  
Analog: 4-20mA (2-wire)  
Digital: HART communication

▼Power supply  
12-45VDC

▼Measuring elements  
Diaphragm  
Material: SS316L

▼Drain / vent valve  
Material: SS316

▼Bolt  
SS304

▼Loop load  
250 to 550Ω for HART comm.

▼Insulation  
500Vrms (707VDC)

▼Accuracy  
±0.075%

▼Stability  
±0.125% URL/3 year

▼Static pressure effect  
±0.1% of URL per 7MPa

▼Power supply effect  
±0.005% F.S./V

▼Weight  
3.9 kg (aluminum alloy)  
5.35 kg (SS316 case)

## Smart Differential Pressure Transmitter

### Model: SDPT-3100

### Introduction

SDPT-3100 is a microprocessor-based high performance transmitter, which has flexible pressure calibration and output, automatic compensation of ambient temperature and process parameters, configuration of various parameters, communication with HART protocol.



Due to the variety of customization, the picture is only for reference, please confirm the actual item with our sales. (If there is any change on specification, please take the latest version as standard.)

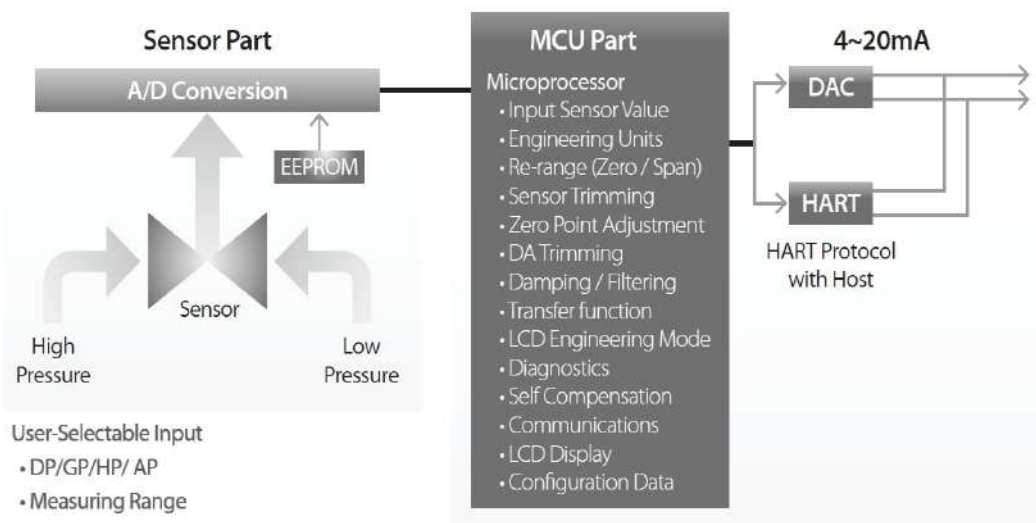
## Features

- Multi-planar type is suitable of being vertically installed without separate adaptor or various types of bracket regardless of the position of each fluid
- Analog / digital signal output:  
4-20mA / HART communication
- 5-digit LCD screen display (option)
- Adjustable zero / span and range setting
- Superior performance:  
Excellent accuracy, long-term stability, high flexibility and reliability
- Protection level: IP67
- Explosion-proof level (option):  
Flameproof Exd II CT6 / T5 / T4  
Intrinsic safety Exia II CT6

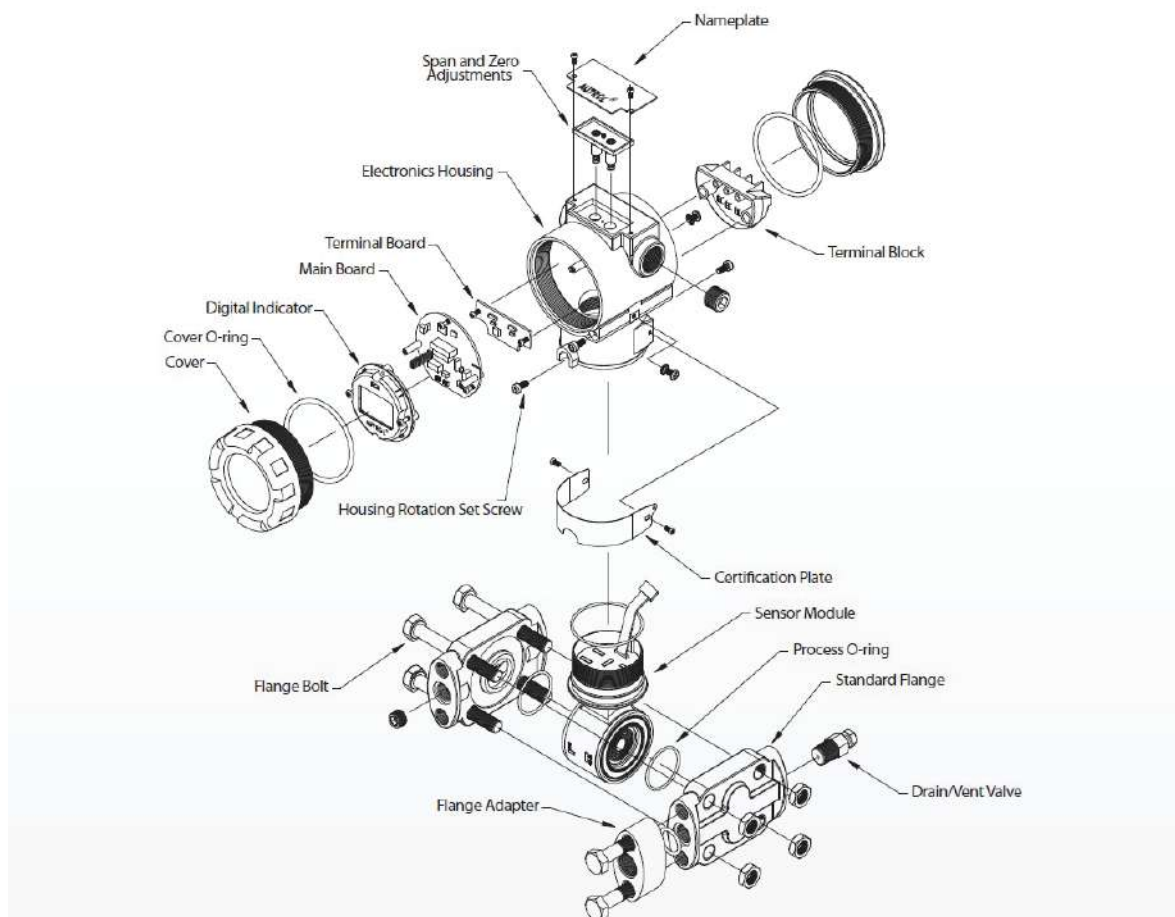
## Pressure range table

Code	Differential Pressure / Gauge Pressure / High Pressure					Absolute Pressure	
	Calibrated span (kPa)	Upper range (URL) (kPa)	Lower range (LRL) (kPa)			Calibrated span (kPa)	Range (kPa)
			D.P.	G.P.	H.P.		
1	0.075~1.5	1.5	-1.5	-1.5	NA	NA	NA
2	0.15~7.5	7.5	-7.5	-7.5	NA	NA	NA
3	0.373~37.3	37.3	-37.3	-37.3	-37.3	2.5~250	0~250
4	1.865~186.5	186.5	-186.5	-100	-186.5	15~1500	0~1500
5	6.9~690	690	-690	-100	-690	25~2500	0~2500
6	20.68~2068	2068	-2068	-100	-2068	NA	NA
7	68.95~6895	6895	-6895	-100	NA	NA	NA
8	206.8~20680	20680	NA	-100	NA	NA	NA
9	413.7~41370	41370	NA	-100	NA	NA	NA

## Function block diagram

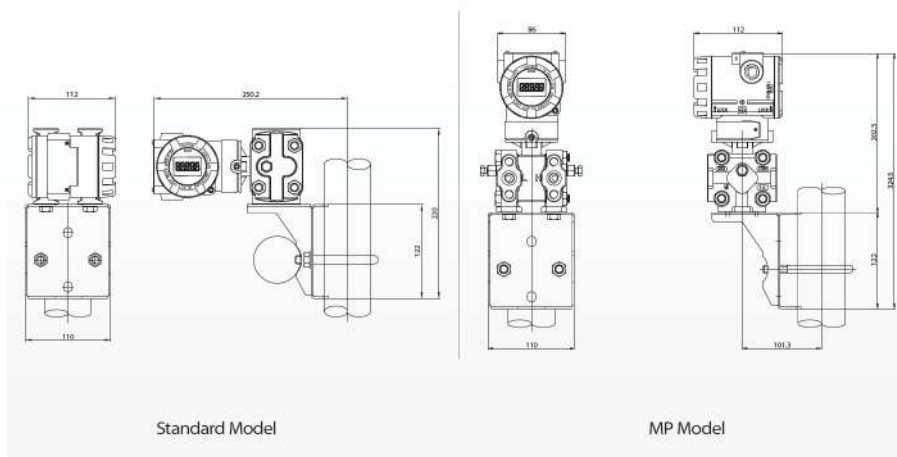


## Exploded drawing of SDPT-3100

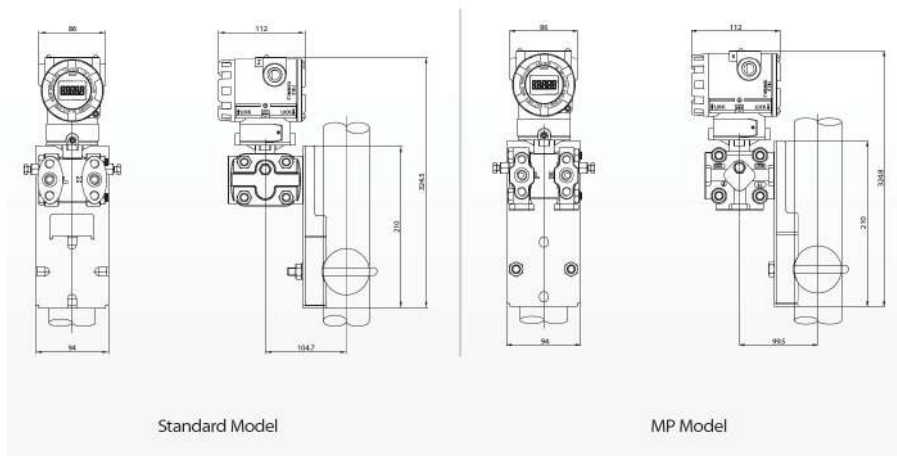


## Installation with mounting bracket

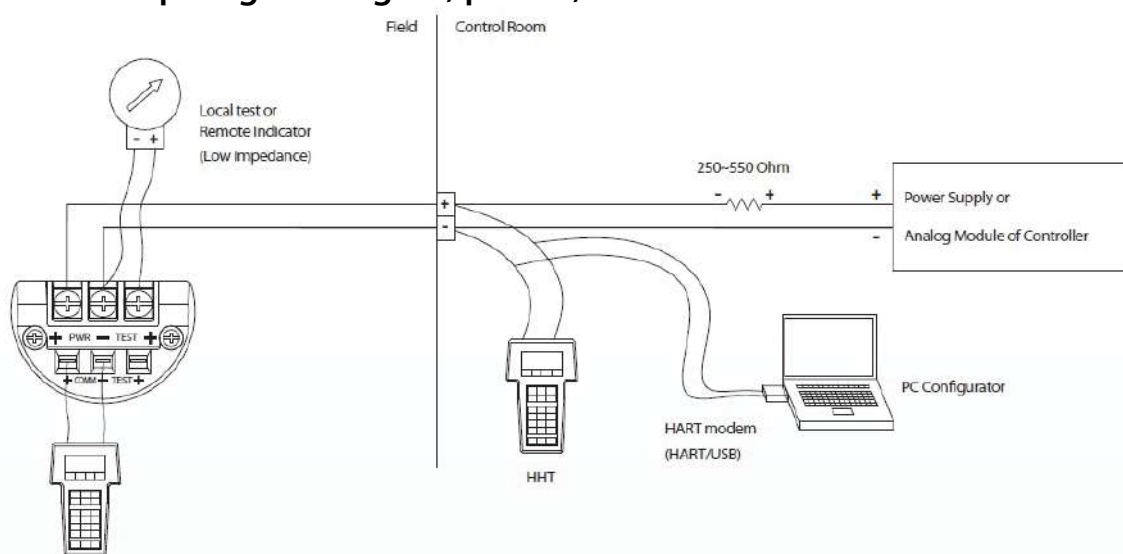
### 2" Pipe mounting bracket model angle type



### 2" Pipe mounting bracket model flat type



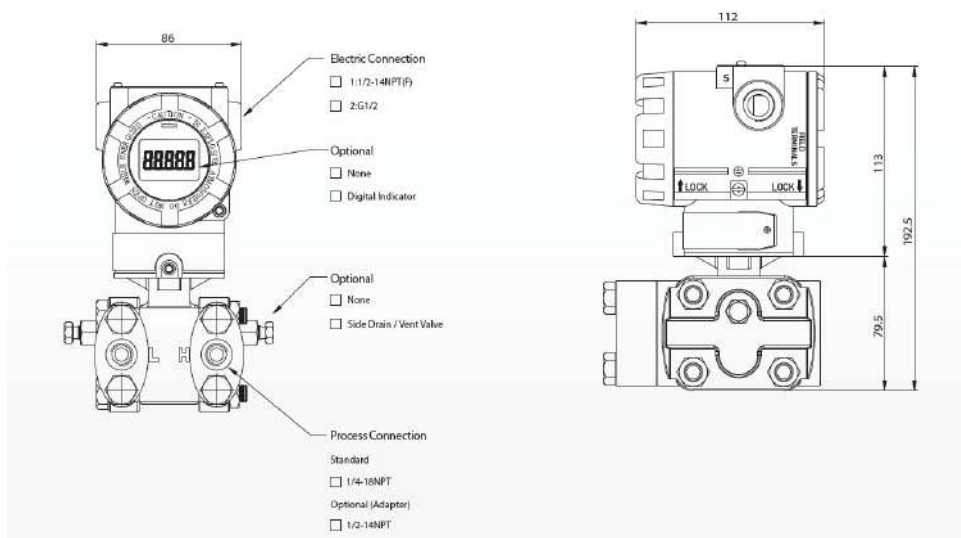
## Connection diagram of signal, power, HHT for transmitter



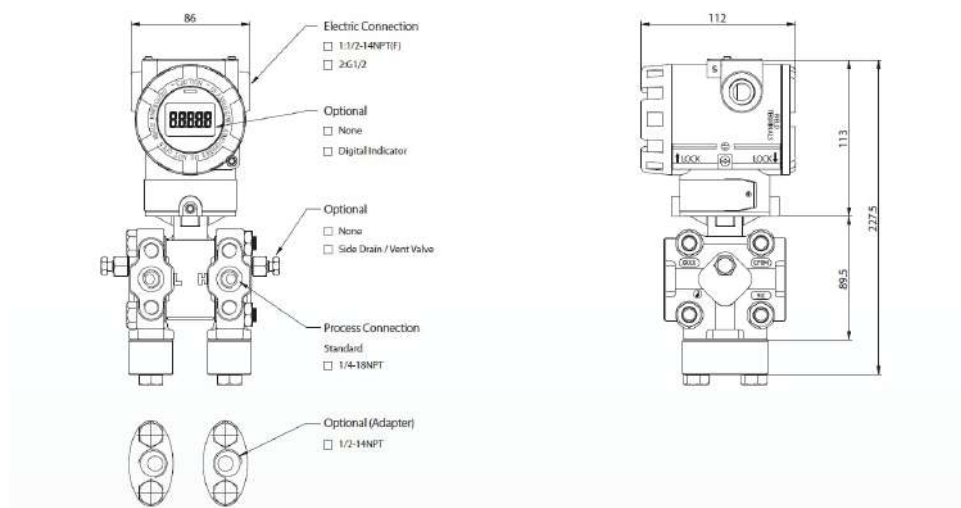
1. HHT(HART Communicator) or PC Configurator may connected at any termination point in the signal loop.
2. HART Communication requires a loop resistance between 250 and 550 ohm @ 24 Vdc
3. Power Supply
  - Voltage Range : 12 to 45 Vdc
  - Voltage Rating : 24 Vdc ±30%

## Dimension (Unit: mm)

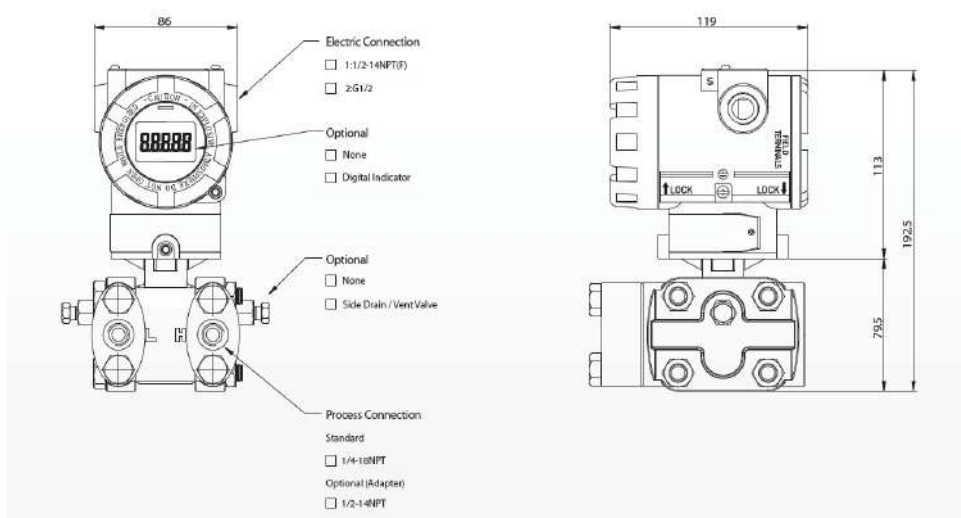
### Standard type



### Multi-planar type



### Intrinsically safe type



## How to order

SDPT-3100 Smart Differential Pressure Transmitter							
Std.	Spec.	Code	Item	Code	Item	Code	Item
S	Type	S	Standard	MP	Multi-planar	–	–
2N	Process connection	2N	1/4" -18" NPT	4N	1/2" -14" NPT with adapter	–	–
4N	Electric connection	4N	1/2" -14" NPT (F)	G4	G1/2"	–	–
Custom	Pressure range	Please refer to pressure range table					
A	Case	A	Aluminum alloy	SS	SS316	–	–
V	Cover O-ring	V	Viton	P	PTFE	–	–
/D	Other requests	/A	Third party notarized document				
		/B	Inspection report (issued by Re-Atlantis)				
		/C	Tag				
		/D	5-digit LCD display				
		/E	Flameproof Exd II CT4~6				
		/F	Intrinsic safety Exia II CT6				
		/G	Side drain / vent valve				

Order example: SDPT-3100 - S - 2N - 4N - 5 - A - V - /D