

# SP2088 Industrial Series

## Standard Pressure/Differential Pressure Transmitters

PARSEN Selection sample 2021.01

### Overview

SP2088 industry standard pressure transmitters use high-precision pressure transducer assemblies, with built-in circuitry that converts the sensor's pressurized output millivolts into standard current or voltage output signals. To ensure the stability, reliability and high performance of the product, high-quality sensors and transmitters are specially designed for amplification circuits, and all-stainless steel integrated welding process is used to ensure long-term stability of the product in harsh working conditions. The product is available in a variety of pressure and electrical connections and is suitable for use in a variety of inspection equipment and control systems.

### Applications

- Air pressure, hydraulic, pneumatic control system
- Level measurement and control system
- Power, environmental protection
- Petroleum, chemical industry
- Pipe network, storage tank control system
- Water supply
- Pure water cooling system
- Industrial process detection and control
- Laboratory pressure calibration, pressure test bench



2088 Series Pressure Transmitter

### Features

- Adopt advanced technology
- High precision, good long-term stability, reliable and durable

- Using a micro amplifier circuit, can output a variety of current, voltage signals
- Adopt all-stainless steel integrated welding structure
- Thread, electrical interface diversification, convenient installation of various working conditions
- Multiple range and pressure type selection
- Anti-vibration, anti-shock, lightning protection, anti-radio frequency interference
- Optional small integrated LCD display and watch head with switching output
- Product parameters adopt laser marking technology to ensure the traceability of products
- Customizable

## Specification

<b>Measurement medium</b>	Various liquids, gases or vapors compatible with 316 or 304 stainless steel
<b>Pressure Range</b>	Gauge pressure 0~0.01MPa to 0~250MPa, absolute pressure 0~0.1MPa to 0~250MPa, vacuum 0~-0.1MPa
<b>Overload pressure</b>	2 times full scale or 300MPa(take the smaller value)
<b>Output Signal</b>	4~20mADC(Two-wire system) 0~10VDC, 0~5VDC, 1~5VDC(three-wire system)
<b>Power Supply</b>	9~36VDC(two-wire system), 24±5VDC(three-wire system)
<b>Medium temperature</b>	-30~+85℃, -30~+150℃(plus loose tablets)
<b>Operating temperature</b>	-20~+85℃
<b>Storage temperature</b>	-40 ~ + 90℃
<b>Relative humidity</b>	≤95%(40℃)
<b>Response time</b>	≤5 ms ,up to 90% FS
<b>Accuracy</b>	0.5, 0.25 (combined error including nonlinearity, repeatability and hysteresis)
<b>Temperature drift</b>	± 0.05%FS / °C (temperature range -20~85℃, including zero point and range temperature effects)
<b>Temperature compensation</b>	0~70℃
<b>Long term stability</b>	Typical: ± 0.1% FS/year, Max: ± 0.2% FS/year
<b>Process Connection Material</b>	304 or 316 stainless steel

<b>Housing material</b>	304 or 316 stainless steel, when selecting industrial type, the housing is painted with aluminum alloy
<b>Installation</b>	Threaded mounting (flange/chuck mounting)
<b>Process Connection</b>	M20×1.5, M12×1, G1/4, G1/2, flange, chuck( customer tailor )
<b>Electrical connector</b>	Four core shielded cable, aviation plug, Hensman connector, etc

## Model number and naming

### Product line

SP2088 Industrial Series Standard Pressure/Differential Pressure Transmitters

### Output Signal

CR 4~20mA Current output

VA 0~ 5V Voltage output

VB 0~10V Voltage output

VC 1~ 5V Voltage output

### Product Type

BZ Standard

### Pressure Interface

A1	M20*1.5	B1	G1/2	C1	1/2"NPT	Y1	clamp φ50.5mm
A2	M16*1.5	B2	G1/4	C2	1/4"NPT	Y2	clamp φ64mm
A3	M14*1	B3	G1/8	C3	1/8"NPT	Y3	DN25 flange
A4	M12*1	B4	G3/8	C4	3/8"NPT	Y4	DN50 flange

D Non-standard thread (flange or chuck)

### Accuracy

A 0.5                      B 0.2

### Range

\*(Digital) Product range \* MPa

### Electrical Interface

CD*	cable line * m	G	industrial type	D	Hensman joint
				H	aviation plug
				F	waterproof junction box

### Display

S LCD display                      N non-display

### Other requirements

FZ	anti-vibration	FC	anti-impact	FG	anti-interference
GA	quadruple overvoltage protection	GK	waterproof, oil-proof protection	FL	lightning protection
GW	additional heat sink	QT	other requirements		

### Pressure type (product default)

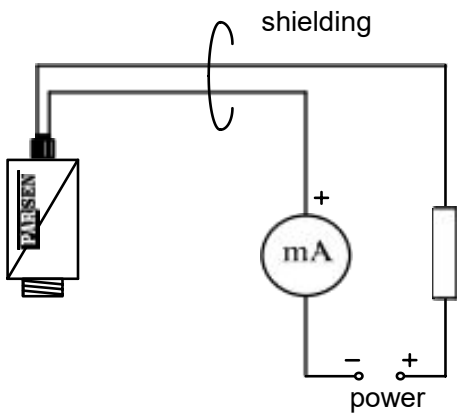
3 gauge pressure                      4 absolute Pressure                      5 sealed Pressure

### Selection example

SP2088-CR-BZ-A1-A-G-S

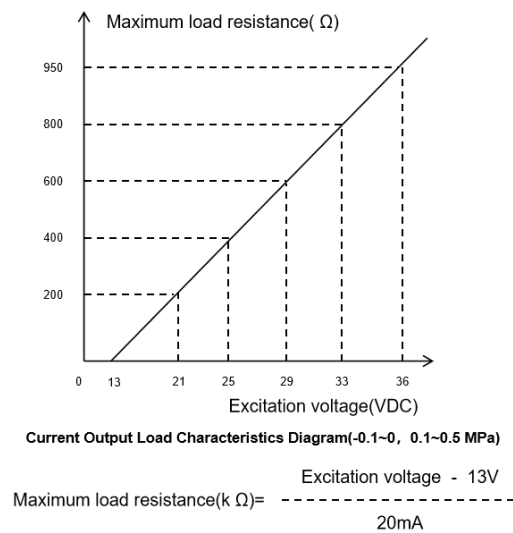
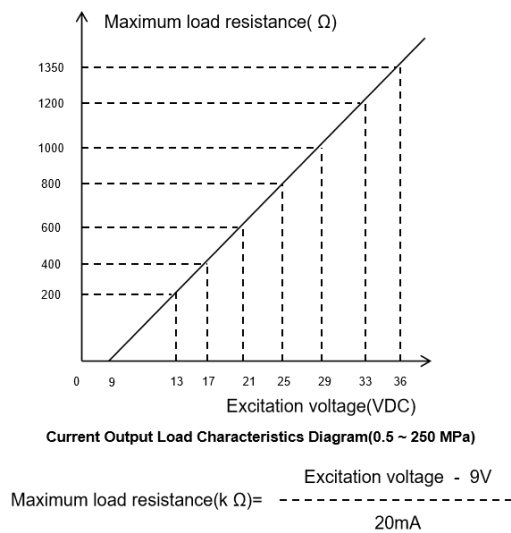
## Product wiring

### Current-type product wiring diagram

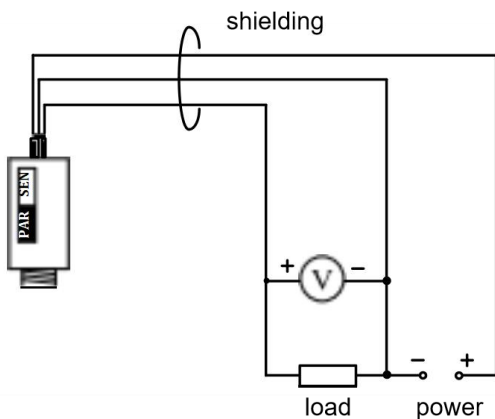


	Cable connection	Hersman joint connection	Aviation plug connection	Industrial-type
Power supply positive (V+)	red wire	first pin	first pin	OUT +
Signal output positive (OUT+)	black wire	second pin	second pin	OUT -
Ground connection (GND)	exposed line	ground pin	fourth pin	ground pin
Suspended	non	third pin	third pin	non
Test End (I +)	non	non	non	TEST +
Test End (I -)	non	non	non	OUT

### Current output load characteristic diagram



### Voltage type product wiring diagram



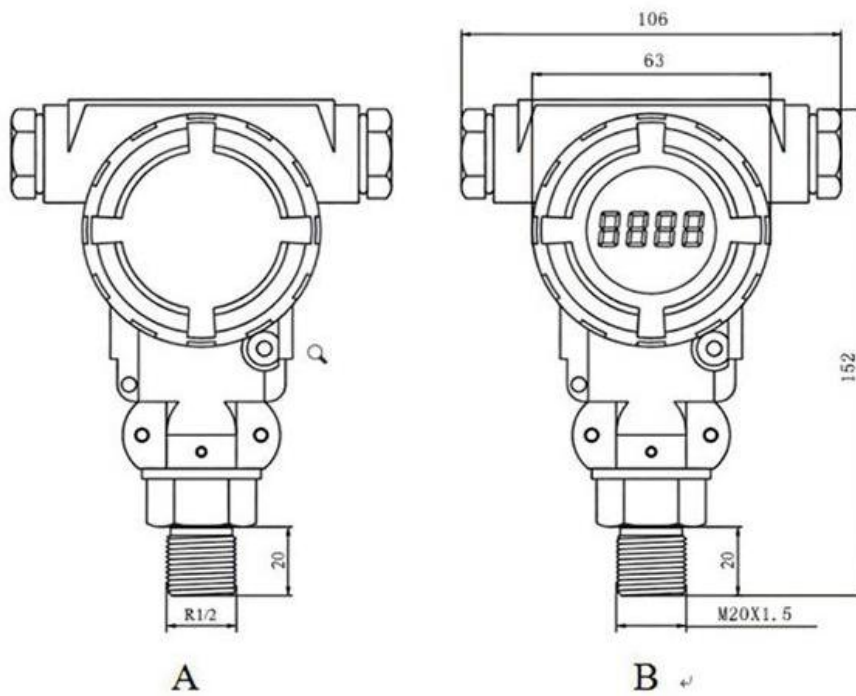
	Cable connection	Hersman joint connection	Aviation plug connection
Power supply positive (V+)	red wire	first pin	first pin
Power negative/signal negative (V-/OUT-)	black wire	second pin	second pin
Signal output	green wire	third pin	third pin
Ground (GND)	exposed line	ground pin	fourth pin

The supply voltage of the voltage type product is  $24 \pm 5\text{VDC}$ , and the load resistance should be greater than  $2000 \Omega$ .

## Exterior drawing and mounting square type

# 规格尺寸

Specification size



# 接线指导

Wiring Guidance

