

DPS3051 SERIES SMART DIFFERENTIAL PRESSURE TRANSMITTER

FEATURES

- ◎ Various output signals
- ◎ High stability, low drift
- ◎ Isolation explosion-proof
- ◎ Monocrystalline silicon differential pressure sensor
- ◎ High static pressure, high overload protection
- ◎ Designed for high precision pressure, liquid level, density, flow measurement



INTRODUCTION

The DPS3051 Series Smart Differential Pressure Transmitter is a high-performance device designed for precision measurement in a wide range of industrial applications. Engineered for high accuracy and reliability, the DPS3051 is ideal for monitoring pressure, liquid level, density, and flow. It is commonly used in industries such as oil and gas, chemicals, power generation, and process control.

APPLICATION

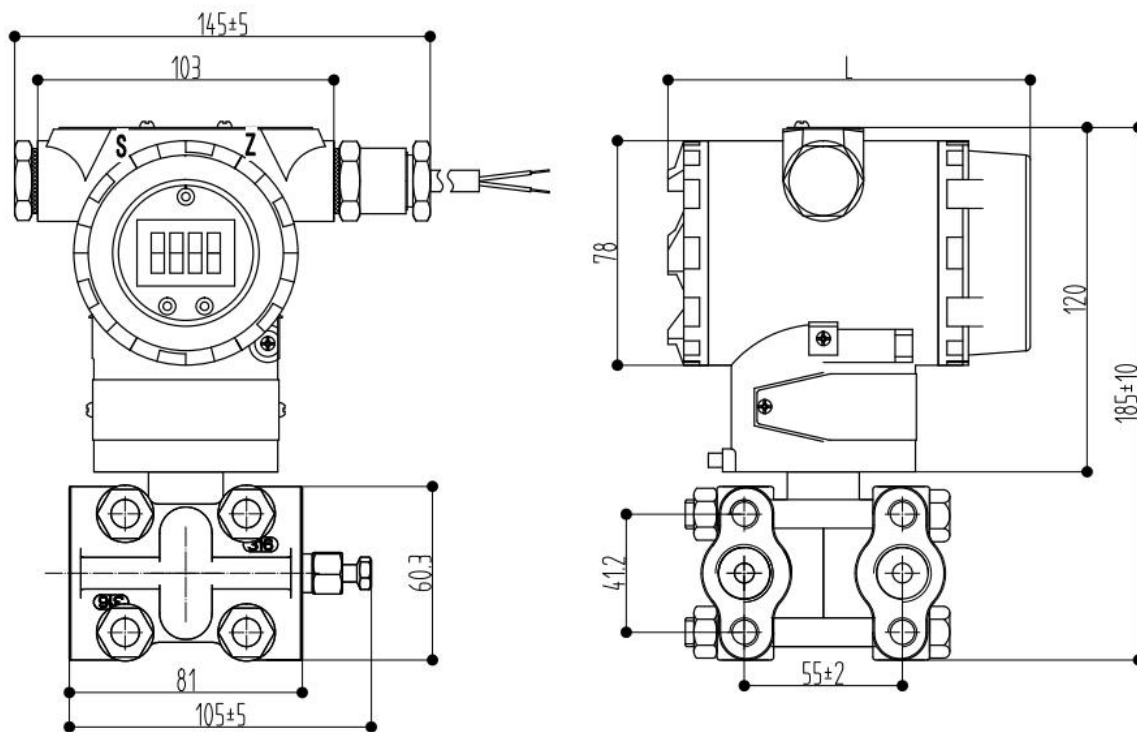
Process control fields across industries such as petroleum, chemicals, metallurgy, electricity, food production, papermaking, pharmaceuticals, machinery manufacturing, scientific research, and military aviation, among others.

SPECIFICATIONS

Pressure type	Differential pressure
Pressure range	-0.1MPa~0kPa~6kPa...3MPa
Power supply	12VDC ~ 32VDC (Standard 24VDC)
Output signal	4mA ~ 20mA+HART protocol
Accuracy	0.075%FS, 0.1%FS, 0.25%FS
Temperature drift	0.25%FS, 0.3%FS, 0.5%FS
Overload pressure	≤ 200%
Response time	≤ 10ms(10%~90%)
Media temperature	-40°C ~120°C
Diaphragm material	316L, Hastelloy C
Relief valve	304

O-ring	Silicone rubber (in contact with the measurement medium)
Sealing liquid	Silicon oil
Housing material	Shell die-casting aluminum alloy, painted with epoxy resin coating
Electrical connection	M20×1.5, NPT1/2
Static pressure range	±1kPa, ±6kPa, ±40kPa static pressure resistance 16MPa, ±100kPa, -100~250kPa static pressure resistance 25MPa, -0.1 ~ 1MPa, -0.1 ~ 3MPa static pressure resistance 40MPa
Measuring medium	Fluid compatible with 304 and 316L
Protection	IP67

MECHANICAL DIMENSION

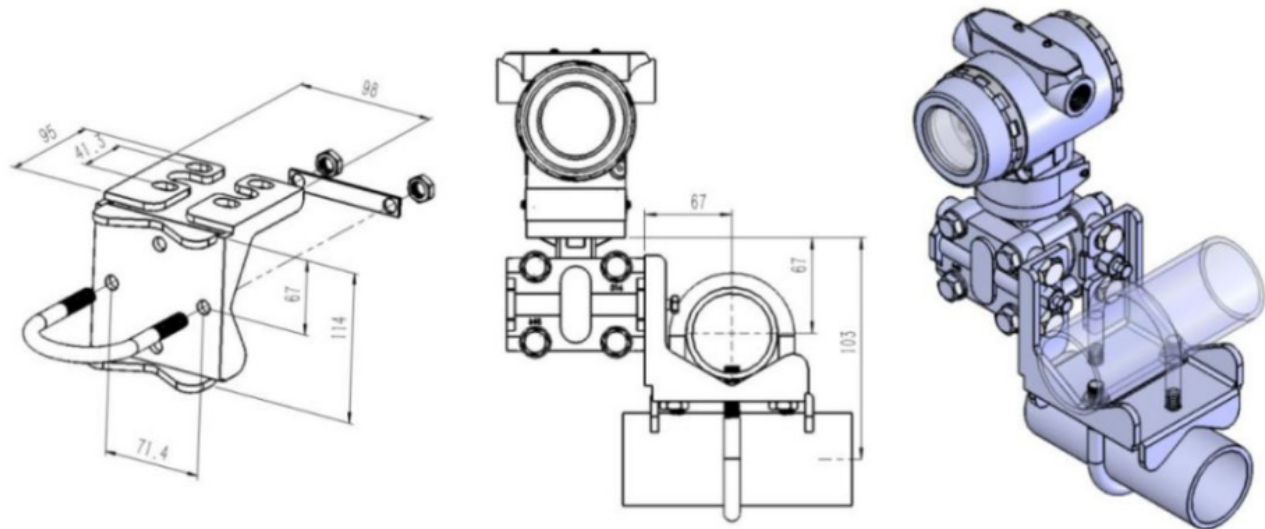


Note:

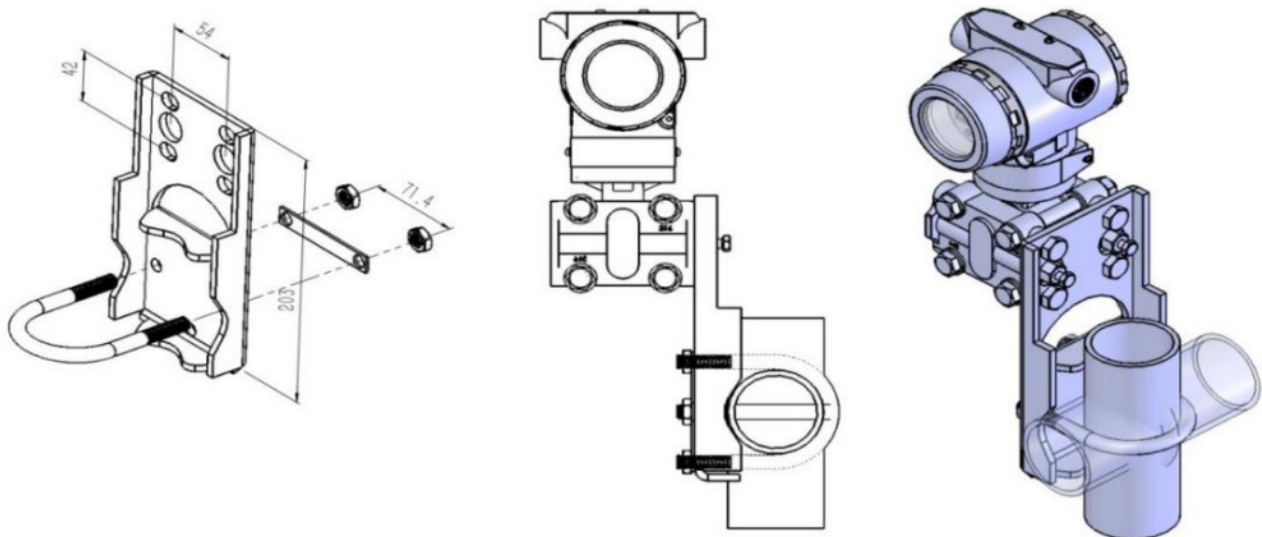
With display L=126±5mm

Without display L=108±5mm

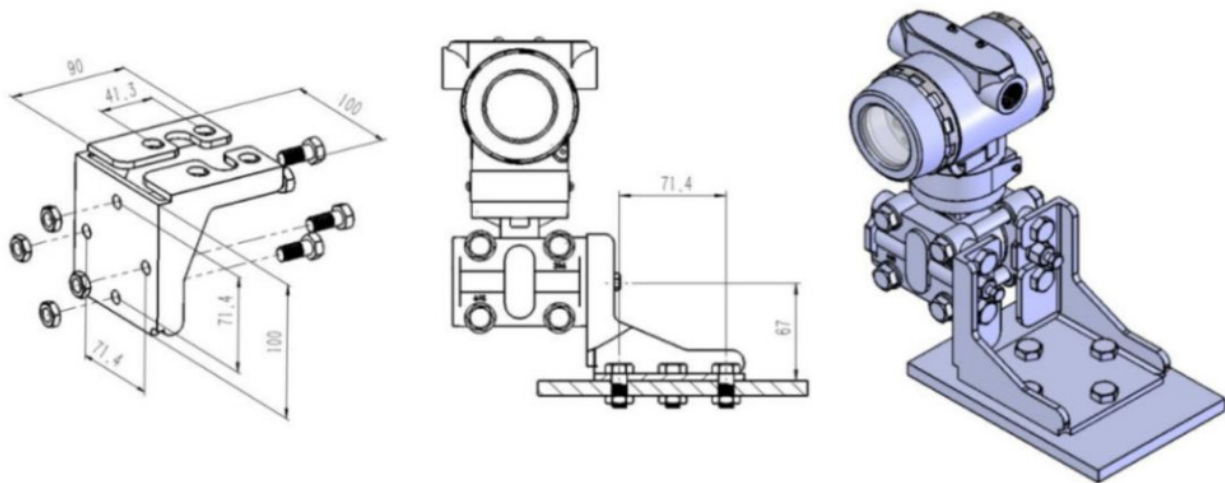
MOUNTING BRACKET OPTIONS



Pipe installation bending bracket: B1

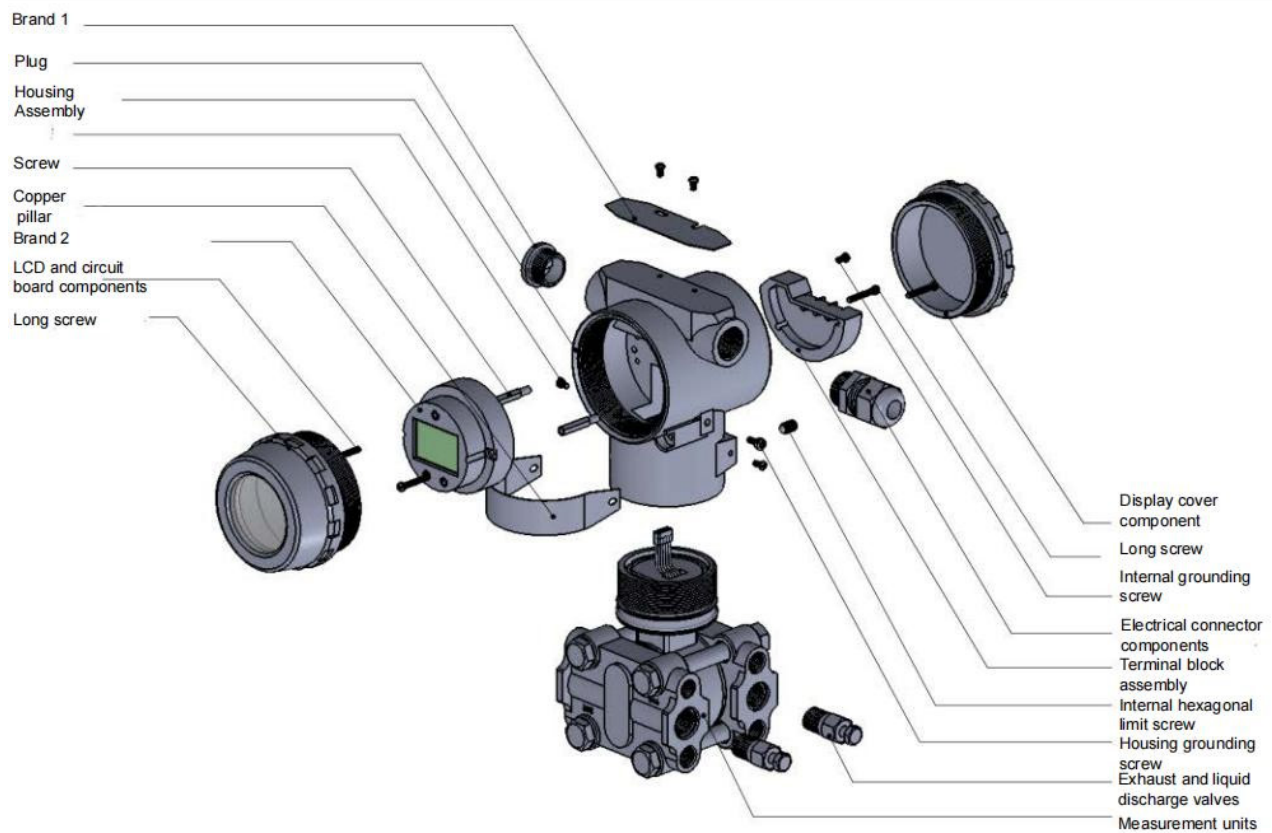


Pipe installation flat bracket: B3

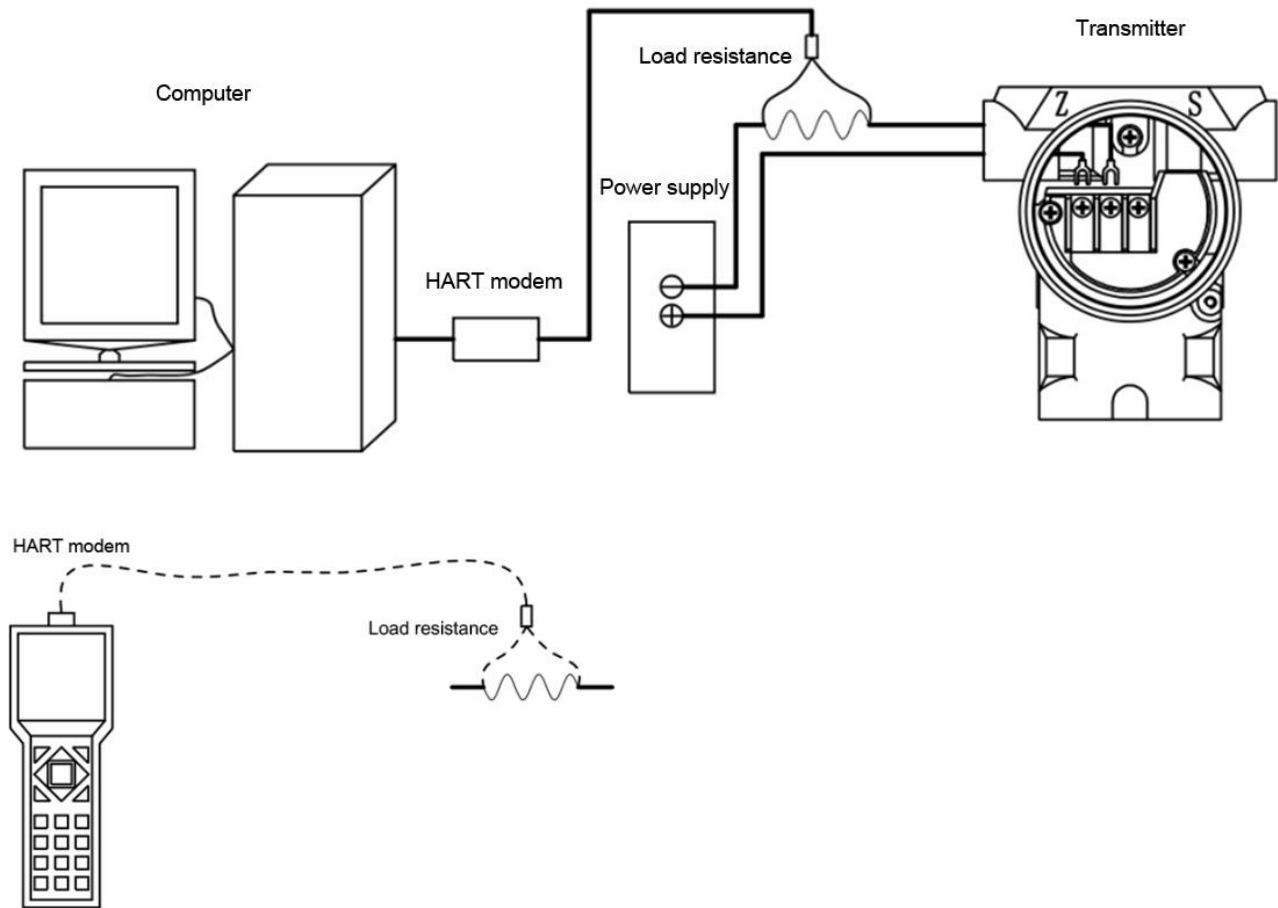


Board mounted bracket: B2

PRODUCTS DIAGRAM



HART COMMUNICATION DIAGRAM



ORDER FORMAT

DPS3051 - 6KPa - 3L - D1

Pressure Range	Code
0~Xbar	XBar
0~XKPa	XKPa
0~XMPa	XMPa
0~XPSI	XPSI

Code	Diaphragm material
HC	Hastelloy C
3L	316L

Code	Electrical connection
H1	Without Display (M20X1.5)
H2	Without display (NPT1/2 female)
D1	With display (M20X1.5)
D2	With display (NPT1/2 female)

Note:

DPS3051-6KPa-3L-D1,DPS3051 series smart differential pressure transmitter, pressure range $\pm 6\text{kPa}$, diaphragm material 316L, standard 4~20mA+HART output, 3051 housing with display (M20x1.5 electrical connection).