

GP-2301 Hygienic Flush Diaphragm Pressure Sensor

Instruction

The GP-2301 is a flush diaphragm pressure sensor designed for sanitary applications. The pressure interface part and the diaphragm are made of 1.4435 stainless steel with polished surface and filled with AK100 safety silicone oil. The built-in MEMS chip is temperature compensated, and output corrected by laser resistance to the sensor, so it guarantees good performance.



Parameters

Items	Parameters
Power supply	$\leq 2.0\text{mADC}$
Electric connection	6-pin Kovar or 110mm Wires
Range	0~0.35~100 bar
Pressure Type	Gauge, Absolute
Input impedance	$3\text{k}\Omega \sim 8\text{k}\Omega$
Output impedance	$3.5\text{k}\Omega \sim 6\text{k}\Omega$
Response (10% ~ 90%)	$< 1\text{ms}$
Insulation resistor	$100\text{M}\Omega$, 100VDC
Overpressure	1.5 times FS
Metal material	1.4435 (NTS20)
Surface	Mirror polishing (contact medium parts)
Filled oil	AK100 (NTS2)
Pin material	Kovar
Orientation effect	Deviate 90° from any direction, zero change $\leq 0.05\%\text{FS}$
Shock	No change at 10gRMS , (20 ~ 2000)Hz condition
Impact	100g, 11ms
Standard Condition	Media temperature: $25 \pm 1^\circ\text{C}$ Environment temperature: $25 \pm 1^\circ\text{C}$ Humidity: $50\% \pm 10\%\text{RH}$ Environment pressure: 86 ~ 106kPa Power supply: $1.5 \pm 0.0015\text{mA DC}$

Range List

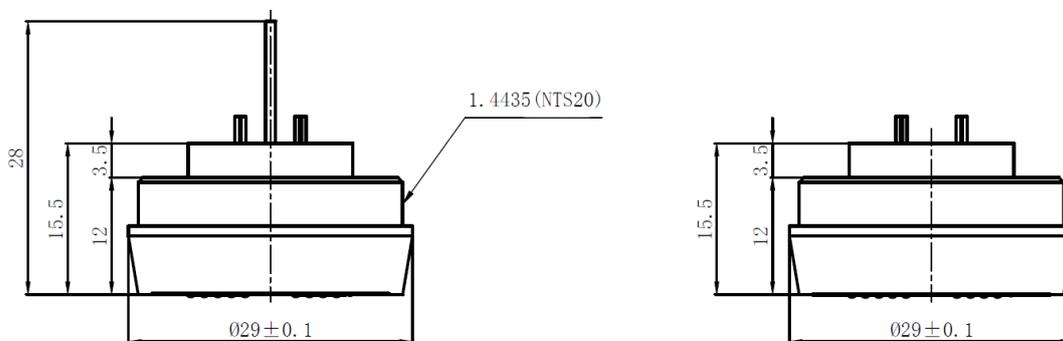
Range	Over Pressure	Range	Over Pressure
0~150mbar	300mbar	0~1 bar	3 bar
0~200mbar	500mbar	0~2.5 bar	8 bar
0~350mbar	500mbar	0~5 bar	15 bar
0~700mbar	1.5bar	0~10 bar	30 bar

Specification

Specification*	Typ.	Max.	Unit
Non-linearity	±0.15	±0.25	%FS, BFSL
Repeatability	±0.05	±0.05	%FS
Hysteresis	±0.05	±0.05	%FS
Zero output		±2	mV DC
FS output		≥60	mV DC
Zero thermal error	±0.75	±1.0	%FS, @25°C
Span thermal error	±0.75	±1.0	%FS, @25°C
Thermal hysteresis		±0.1	%FS
Long-term stability		±0.2	%FS/year
Compensated temperature	0 ~ 70		°C
Working temperature	-40 ~ 125		°C
Storage temperature	-40 ~ 125		°C
*Testing at standard condition			

Dimensions (mm)

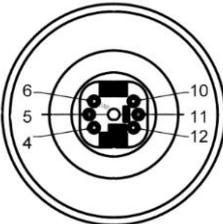
Parts in contact with the measuring medium are mirror-polished



Pressure Range ≤ 3.5 MPa

Pressure Range ≥ 7 MPa

Electrical Definition

	Pin	Wire Color	Definition	Wire Length
	4	Red	OUT +	110mm
	10	Blue	OUT -	110mm
	11	Yellow	IN -	110mm
	12	Black	IN +	110mm

Order Guide

GP-2301		Flush Pressure Sensor	
Code1	Pressure Range		
150mbar	0~150mbar		
200mbar	0~200mbar		
350mbar	0~350mbar		
700mbar	0~700mbar		
1bar	0~1 bar		
2.5bar	0~2.5 bar		
5bar	0~5 bar		
10bar	0~10 bar		
	Code2	Pressure type	
	G	Gauge	
	A	Absolute	
		Code3	Electric output
		1	Pins
		2	100mm Wires

Example: GP-2301-2.5bar-G-2