

Pressure Sensor

General information about ADIP-613DS

Diezo-resistive Pressure Sensor

Introduction

- ✓ ADIP-613DS series is a 14-bits digital output pressure sensor, supporting I²C interface protocol.
- ✓ The external pressure is passed to sensitive elements through 316L stainless steel diaphragm and internal silicon oil. this device can be used to measure all pressure media compatible with stainless steel.
- ✓ The series sensor realizes pressure and temperature calibration and compensation via a specially customized integrated circuit.
- ✓ It outputs 10%-90% digital signal as well as digital output of temperature signal.

Applications:

- Automation control
- Pressure instruments
- Level measurement
- Pressure transmitters



Features:

- SPI, I²C, 0-5V, 0-10V communication
- OEM, ODM & Customization service
- Suited for pressure range: 0-40Kpa...7Mpa
- Wide temperature compensation range: total error<1%
- Measurable of corrosive media (media compatible with 316L)
- Standard mounting size

Technical specification of the device:

Parameters		Min.	Typical	Max.	Notes
Interface Type		I ² C (ADDR, 0X28H)			SPI (optional)
Accuracy(%FS)	40Kpa		±0.20	±0.30	combined linearity, hysteresis and repeatability.
	>40Kpa		±0.10	±0.20	
Total Error Band (%FS)		-1		1	includes calibration errors and temperature effects over the compensated range.
Output Type		10% — 90% (A type)			5%-95%(B type) Optional
Zero Pressure Output			666		Count Hex
Full Scale Pressure Output(FS)			399A		
Resolution–Pressure(%FS)		0.008			14bits
Temp. Accuracy(°C)		-1.5		1.5	over the compensated temperature range
Resolution–Temp.(°C)			0.1		8~11bits
Operating Temp.(°C)		-40		125	
Compensated Temp.(°C)	40Kpa	0		50	
	≥100Kpa	-10		70	
Input Voltage(V)		2.7	3.3	5.5	
Supply Current (mA)			3.0		
Load Resistance (KΩ)		10			
Insulation Resistance (MΩ/50V)		50			
Response Time (ms)			0.5		
Pressure Range		0-40Kpa...7Mpa			See ordering information
Overpressure	≤4Mpa	2X			
	7Mpa	1.5X			
Media–Pressure		Liquids and gases compatible with 316L Stainless Steel			

