

Car Purpose Pressure Transducer/Switch

Advantages

- Low cost and qualified low pressure transducer for industrial applications
- Measuring ranges form 0 to 15kgf/cm²
- Compact design
- Voltage or switch output
- Wide operating temperature range
- MEMS technology for superior linearity and low hysteresis
- Excellent performance/price ratio
- Wide operating Voltage/DC 18~36V



Applications

The transducer can be used for a wide range of applications in process control, automatic machinery and hydraulic or pneumatic system design

- Standard hydraulic and pneumatic equipments
- Machine tools and automatic machinery
- Air and gas compressors
- Pump pressure control • ECAS system
- Process control • Industrial engines • Automotive systems

Description

Car Purpose series low cost Pressure transducer/Pressure switch are for measuring pressure of gases and liquids in industrial applications. It is also suitable for low pressure measurement and precise measurement. Piezoresistive resistors are attached to the cell and connected into a Wheatstone bridge configuration. The output signal of this bridge is converted into a standardized current or voltage output signal.

Specifications

Input		
Model	Transducer	Switch
Technology	Semiconductor pressure sensor	Semiconductor pressure sensor
Pressure ranges	0~10 to 0~15kgf/cm ²	0.3 to 6.1kgf/cm ²
Pressure reference	Absolute	Absolute

Output		
	Voltage Output	Switch Output
Electrical connection type	3-wire	3-wire
Zero measured output	0.18V/0.5V ±0.5%	
Full measured output	4.31V/4.5V ±0.5%	
Switch pressure point(Push off)		2.0~6.1kgf/cm ² ±0.2kgf/cm ²
Switch pressure point(Push on)		0.3kgf/cm ² ±0.1kgf/cm ²
	Other signals available on request	

Electrical Specifications

Excitation voltage	18~36V	
Output	0.18 to 4.31VDC/0.5 to 4.5VDC	Normal On or Normal Off
Consumption current	280mW below(at 10mA)	
Rated load		200mA below
Response time	< 5ms	
Power ripple	≤ 500mV P-P	
Insulation resistance	over 3Mohm(DC500V megger, at 15kgf/cm ²)	

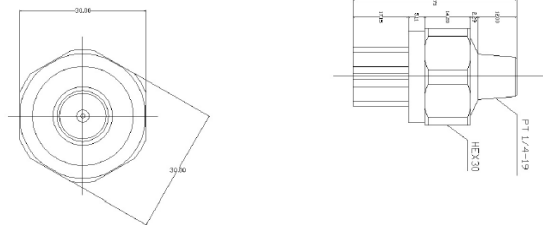
Performance Specifications		
Accuracy	±0.5%FSO	
Tolerance		±0.1kgf/cm ² ±0.2kgf/cm ²
Temperature effect	±0.2%FSO/°C	
Linearity/Hysteresis/Repeatability	±0.2~0.5%FSO typ.	±0.2~1%FSO typ.
Long term stability	±0.3% FSO per annum	±0.5% FSO per annum
Reference temperature	25°C	25°C
Compensated temperature range	-20~85°C	-20~85°C
Operating temperature range	-40~100°C	-40~100°C

Physical Specifications		
Proof pressure	2×full scale	3×full scale
Burst pressure	4×full scale	8×full scale
Pressure port	PT 1/4-19	
Mounting torque	Max 30Nm	
Pressure resistance	No defect after 10 seconds in 30kgf/cm ²	
Durability test condition	1,200,000 cycle	
Weight	Approx. (60g)	

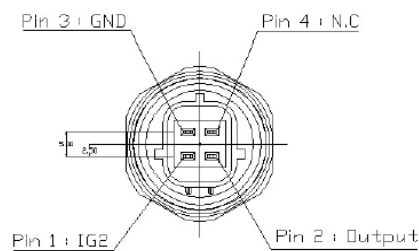
Note

- ① Available customer designed low pressure transduce/Switch on request
- ② Cable version: 0.2m standard length(AMP 174257-2), 4wire

Dimensions(mm)

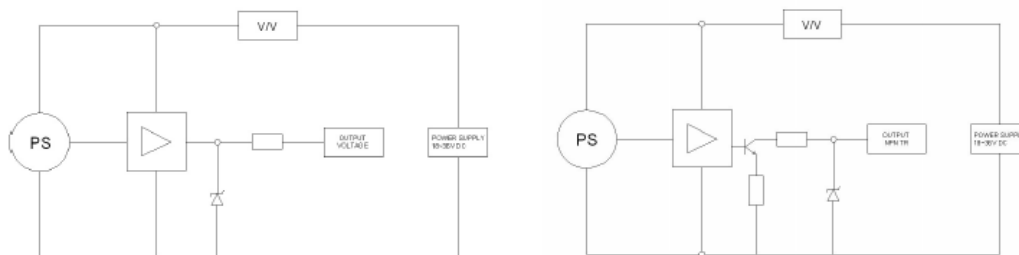


Electrical connection



Pin No	4wire	3wire
1	Input⊕	Input⊕
2	Output	Output
3	GND	GND
4	N/C(Signal)	

Internal Circuit Diagram



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