UPC4 High Frequency Response Pressure Transducer

Description

Based on MEMS technology, UPC4 high frequency pressure transducer uses integrated silicon diaphragm as sensing element. UPC4's effective size is small, and because of the silicon's fine elasticity characteristic, in addition to the transducer's flush structure, therefore, UPC4's dynamic frequency response is extremely high (max. 1MHz), it may response to the lowest to zero frequency, highest to almost natural frequency, and the level rising time is only microsecond. UPC4 transducer's overall performance surpasses piezoelectric dynamic pressure transducer.

UPC4 series sensor has been widely applied in scientific experiments as military engineering, melt exploding experiment, petroleum, oil well logging, material, mechanics, construction engineering, soil and rock mechanics, the wound medicine, hydraulic pressure power generator experiments, and in the modernization instruments and meters, it is the first choice for dynamic pressure measurement.

Features

- Based on MEMS silicon chips
- High accuracy, high stability, high reliability
- Flush structure, good dynamic frequency response
- Wide measuring ranges

Specifications

dynamic frequency	max. 1MHz
pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~0.1bar...600bar
pressure type	gauge(G), sealed gauge(S)
overload pressure	⩾150%FS
output signal	80±20mV
accuracy	0.25%FS, 0.5%FS(standard)
zero offset	⩽±2mV
long-term stability	<0.2%FS/year
excitation	1.5mA or 10 VDC
compensated temperature range	-10~70℃
operating temperature range	-30~100℃
storage temperature range	-40~100℃
temperature coefficient of zero	0.3%FS/10℃
temperature coefficient of span	0.3%FS/10℃
input/output resistance	1~6kΩ
insulation resistance	100MΩ@50VDC
process connection	M20×1.5 or others
electrical connection	self-locking structure or other
material of wetted part	1Cr18Ni9Ti
material of housing	1Cr18Ni9Ti

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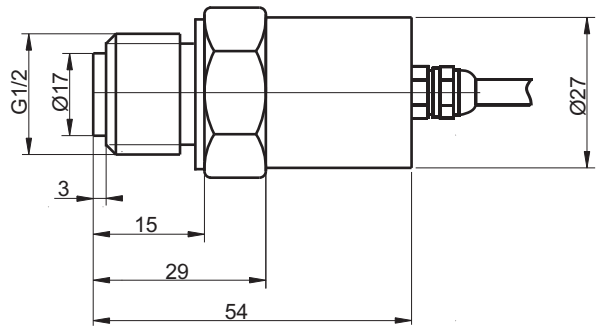
Electrical connection

connection	cable color
power“+”	red
power“-”	black
signal“+”	green
signal“-”	white

Dimensions



Ordering code

UPC4					
range	measuring range: 0~0.1bar...1000bar				
(0~X)bar	X: higher limit of actual measuring range				
	code	accuracy			
	C	0.25%FS			
	D	0.5%FS			
		code	process connection		
		P2	G1/2		
		P4	M20×1.5		
		P5	1/2NPT		
		Pz	customer request		
			code	electrical connection	
			E1	hirschmann connector	
			E2	aviation connector	
			E3	cable(lock nut)	
			Ez	customer request	
				code	power supply
				S1	1.5mA
				S2	10VDC
UPC4	(0~10)bar	D	P2	E2	S2

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