

JC690 High- frequency Dynamic Pressure Transducer

●Product Overview



In military engineering, chemical explosion test, petroleum investigation and exploitation, petroleum well test, material, mechanics, civil engineering, geo-mechanics, traumatic medicine, hydraulic power mechanical test and other scientific tests as well as modern instruments and meters, undistorted measurement of some frequently -changing dynamic pressure form, amplitude, and effective value with fast and steep pressure waveform rise shall be made. This requires that the pressure sensors used have high intrinsic frequency, very short rise time, and wide and good response frequency band to ensure sufficient dynamic pressure measurement accuracy. JC690 high-frequency dynamic pressure

transducer is specially designed for this purpose. It adopts high – performance chip of a foreign company, using micro machining technology to enable small effective dimensions and high intrinsic frequency of the integrated silicon chip. It boasts good elastic mechanics characteristics and its comprehensive performance is better than that of piezoelectric dynamic pressure sensor. Thus, it is ideal for dynamic pressure measurement.

●Performance Parameters

Measuring range	-100KPa~0~1KPa...20KPa...100MPa		
Overload capacity	Two times FS pressure ((1.1 times FS pressure for 100MPa product)		
Pressure type	Gauge pressure or absolute pressure		
Measured medium	Gas or liquid compatible with 316 stainless steel		
Overall accuracy	±0.1 %FS	±0.25%FS	±0.5%FS
Intrinsic frequency	150KHz~700KHz	500KHz~1MHz	1MHz~2MHz
Band width of transducer	0~1KHz~3KHz	0~20KHz	0~200KHz
Rise time	0~0.2mS~75μS	0~12μS	0~1μS
Long-term stability	Typical: ±0.1%FS/ year		Maximum: ±0.2%FS/ year
Operating temperature	-40℃~85℃ generally		-10℃~250℃ specially
Zero point temperature drift	Typical: ±0.02%FS/℃		Maximum: ±0.05%FS/℃
Sensitivity temperature drift	Typical:±0.02%FS/℃		Maximum: ±0.05%FS/℃
Range of power supply	12~36VDC (24VDC generally)		±15VDC standard switching power supply
Signal output	4~20mA / 1~5 V DC / 0~5V DC		
Load resistance	≤(U-12)/0.02Ω		
Enclosure protection degree	Plug-in type (IP65); cable type (IP67)		
Vibration error	≤±0.01%FS(Axles X, Y, Z, 200Hz/g)		
Port and enclosure	Stainless steel 1Cr18Ni9Ti		
O-ring	Fluo rubber		
Sensor diaphragm	Stainless steel 316L or mono – crystalline silicon		
Safe explosion- proof	Ex ia IICT6		
Insulation resistance	100MΩ,500V DC		
Resolution	Infinite small (theoretical) 1 / 100000 (general)		

●Product Features

- *Stainless steel enclosure, with excellent corrosion resistance
- * Wide pressure measuring range
- * Intrinsic frequency up to 2MHz
- * Stable working
- * Strong interference immunity
- * Genuine imported module with stable performance
- * Small dimensions, light weight, a variety of types and high cost performance
- * Wide range of measured medium

●Product Application

- *Petroleum investigation and exploitation and petroleum well test
- *Chemical explosion test
- *Civil engineering
- *Geo-mechanics
- *Traumatic medicine
- *Military engineering
- *Hydraulic power mechanical test and other scientific tests
- *Mechanics

JC690	High-frequency Dynamic Pressure Transducer		
	Code	Pressure type	
	G	Gauge pressure (G, may not be indicated)	
	A	Absolute pressure (A)	
	Range	(0~ X KPa or MPa) Measuring Range	
		Code	Band width of transducer
		H1	0~1KHz~3KHz
		H2	0~20KHz
		H3	0~200KHz
		Code	Overall accuracy (linear + repeatability + lagging)
		1	±0.5%FS
		2	±0.25%FS
		3	±0.1%FS
		Code	Signal Output
		A1	4~20mA
		V1	1~5V DC
		V2	0~5V DC
		Code	Additional functions
		F1	M20x1.5 external thread
		F2	G1/4 external thread
		F0	Special
		W1	Cable type (IP67, 2m)
		W2	Socket type (IP65, DIN 43650)
		P	Flush diaphragm
		E	Intrinsically safe explosion-proof type Ex iaIICT5
		T1	Free field (specially used for blasting)
		T2	High - temperature resistant type: Up to 250 °C for balanced use,Up to 2000 °C for transient use
JC690 (0~500KPa) —H1 —1 —V2 —F1 —W1 —E - T2 High-frequency Dynamic Pressure Transducer			