

压差变换放大器

The differential amplifier

CY-008系列

本变换器是和电感式压差传感器CY3-8系列配套使用。将传感器输出的小交流电压信号变换成与差压成正比的直流电压信号输出，而其输出直流信号的正负号则是表明压差的方向，它由振荡器、相敏整流器、放大变换等部件组成，它采用密集安装硅胶灌封，所以结构简单，体积小，能经受各种恶劣环境条件。

性能指标

输入电源： $\pm 15\text{ V}$ (针对YA12-9-1、-3)， $\pm 21\text{ V}$ (针对YA12-9-2、-4)

输出零位： $2.5 \pm 0.1\text{ V}$ (针对YA12-9-1)或 $3.0 \pm 0.1\text{ V}$ (针对YA12-9-2)或 0.2 ± 0.1 (针对YA12-9-3、-4)

输给传感器的激励电源： $5 \pm 0.1\text{ V}$ 有效值
 $6000 \pm 300\text{ Hz}$

纹波电压： $\leq 10\text{ mV}$ (有效值)

输出阻抗： $< 1\text{ K}\Omega$

总误差： $\leq 2\%$ (包括非线性、电源、温度误差，不包括传感器误差)

环境温度： $-40 \sim +50^\circ\text{C}$

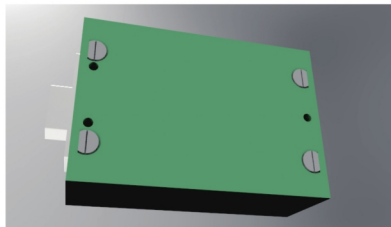
加速度： 15 g 三向

运输：三级公路1500Km 40Km/h

低气压： $5\text{ X}10^{-5} \sim 1.3\text{ X}10^4\text{ Pa}$

湿度：见图1

接点分配(J6-9 ZJ)



This converter is dedicated to supporting the use of inductive CY3-8 series of differential pressure sensor, the sensor output of the ac voltage signal transform into a dc voltage is proportional to the differential pressure of the signal output, And its output dc signal plus or minus is that the direction of the differential pressure, It consists of oscillator, phase-sensitive rectifier, enlarge transform and other parts, it uses intensive installation silicone potting, so it can endure various harsh environmental conditions with simple structure, small volume.

Performance Index

Power supply: $\pm 15\text{ V}$ (for YA12-9-1, -3), $\pm 21\text{ V}$ (for YA12-9-2, -4)

Zero potential output: $2.5 \pm 0.1\text{ V}$ (for YA12-9-1) or $3.0 \pm 0.1\text{ V}$ (for YA12-9-2) or 0.2 ± 0.1 (for YA12-9-3, -4)

Excitation power supply for sensor: $5 \pm 0.1\text{ V}$ effective value
 $6000 \pm 300\text{ Hz}$

Ripple voltage: $\leq 10\text{ mV}$ (effective value)

Output impedance: $< 1\text{ K}\Omega$

Overall error: $\leq 2\%$ (Including nonlinear, power supply, temperature error, not including the sensor error)

Environmental temperature: $-40 \sim +50^\circ\text{C}$

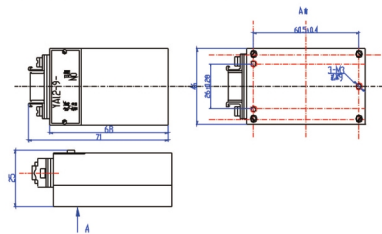
Accelerated speed: 15 g three-dimension

Transportation: tertiary highways1500Km 40Km/h

Low air pressure: $5\text{ X}10^{-5} \sim 1.3\text{ X}10^4\text{ Pa}$

Humidity: figure 1

Distribution of contact (J6-9ZJ)



1	2	3	4	5	6	7	8	9
正电源 positive- supply	传感器激 励电源正 Sensor excitation power supply positive	传感器激 励电源负 Sensor excitation power supply negative	电气地 Electrical earthing	输入信号端 The input signal	信号输出端 The output signal	机械地 machinery earthing	负电源 negative power source	空 null