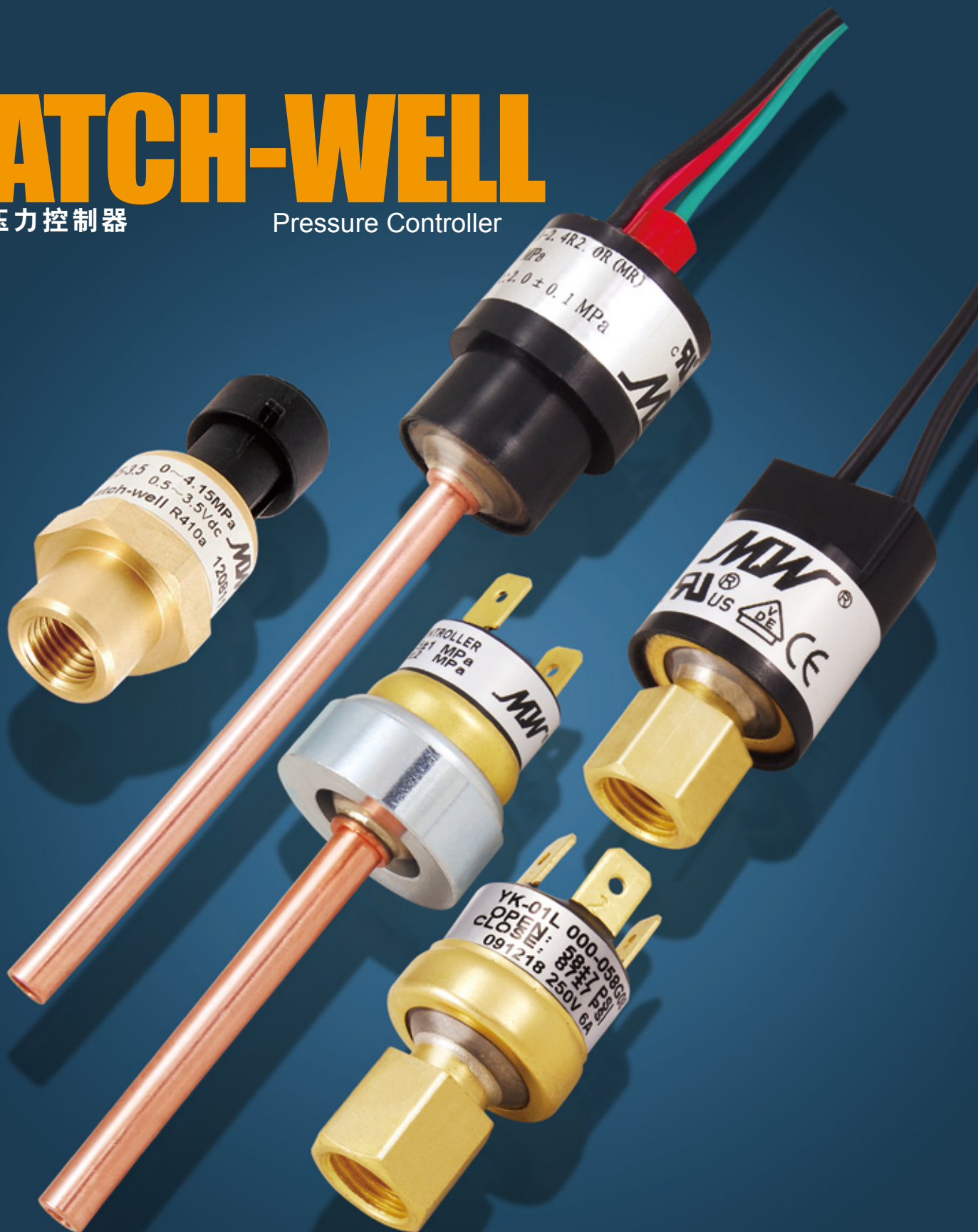


MATCH-WELL

曼淇威压力控制器

Pressure Controller



常州曼淇威压力控制技术有限公司
Changzhou Match-Well Pressure Control Technology Co., Ltd.



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Attention 郑重申明

本公司是常恒牌压力控制器唯一合法生产者和销售者.其它任何单位和个人生产和销售常恒商标的压力控制器均属假冒违法行为!
Our company is the only legitimate producer and seller of Changheng brand pressure controller. Any other entities or individuals producing and selling pressure controller under Changheng brand name are imitated and illegal!



企业简介



常州曼淇威压力控制技术有限公司始建于1994年，位于常州高新技术开发区内，是开发生产压力控制器的专业化生产企业，产品主要用于家用空调、商用空调、制冰机等各类制冷设备和空压机、气动工具等工业设备中的高、低压力保护，现生产能力已超过600万只以上，产品已远销北美、欧洲、中东和亚洲，是目前中国最大的压力控制器生产企业。

以质量创名牌，以技术创新求发展是企业发展战略。企业通过ISO9002质量保证体系认证，2010年又通过ISO9001:2008版质量保证体系认证，全部产品均通过了CQC、UL、C-UL、VDE、CE、TUV、PED等国际国内认证，全部产品及所用材料和零部件均满足“ROHS”和“REACH”指令要求。

争创一流企业是我公司的奋斗目标。公司压力控制器独立生产基地建筑面积8000平米，具有国际先进生产设备和检测设备，生产环境、规模、产品质量和技术水平具有国际同类产品先进水平。“质量第一、信誉第一、用户至上”是我们的服务宗旨，“成为您最有价值的供应商”是我们的承诺。热忱欢迎国内外广大用户选用“曼淇威”品牌压力控制器！万分诚挚地邀请广大用户到我公司来考察指导！您的意见和建议永远是我们最宝贵的财富！

BRIEF INTRODUCTION

Changzhou Match-Well Pressure Control Technology Co.,Ltd.was established in 1994. It is located in Changzhou High-tech Development Zone and specialized in developing and manufacturing pressure controls. The products are mainly used for the high-low pressure protection of residential and commercial air-conditioners, auto air-conditioners and some other industrial equipment. The annual production capacity is 6 million pieces, among which , the pressure controls for air-conditioners has 80% of the China market share of the same kind.With the expanding of the business and the improvement on the quality management and technology, the products have been accepted by North American, European and Asian customers. The quality and technology of the products have become the world class among the products of the same kind.

The enterprise's development strategy is to pursue technical innovation and create famous brand by quality.The enterprise took the lead in passing ISO9002 Quality Assurance System in the same line of business in 1996. In 2002 , the enterprise was also approved by ISO9001:2000 Version Quality Assurance System. All of the products have been authenticated by CQC , UL, C-UL,VDE, CE,TUV and PED,and the products have also passed the SGS inspection in answer to the RoHS and REACH standard.

Our struggling target is to strive for the top class enterprise. The tenet of our service is: Quality first , Reputation first and Customer first. We promise to be your most valuable supplier. Customers from all over the world are warmly welcomed to choose Changheng and Match-Well brands pressure control. You are cordially invited to visit us and your valuable comments and suggestions will always be highly appreciated!



Always Persist in Its Value Ideal 曼淇威一直坚持的价值理念

团结进取 1+1大于2是我们的团队价值观，不断进取是我们实现卓越的价值精神

创新发展 不断创新我们的技术和产品，满足客户不断增长的需要，是我们高速发展之动力

诚信满意 诚信是我们实现价值之根本，顾客满意是我们价值之源泉

回馈社会 社会给予我们实现价值的机会，回馈社会是体现我们价值的良心

Unite to Make Progress our team has the value outlook that means one plus one being larger than two and continuous progress is our value spirit to realize excellence.

Innovative Development we'll continuously innovate our technique and products to meet customer's ever-growing demand and they are also the power motive for us to make speedy development.

Being Trustworthy to Satisfy Customer it is our root to be trustworthy to realize our value and it is our source of value to satisfy customers.

Feed Back to the Society The society gives us opportunity to realize our value and it is our conscience of the value to feed back to the society.

完善的质量保证体系



Quality Policy
质量方针

恪守诚信 追求卓越
Persist in honesty and faith to pursue excellence
持续改进 顾客满意
Satisfy customers with Continuous Improvement

YK系列单刀单掷自动复位压力控制器

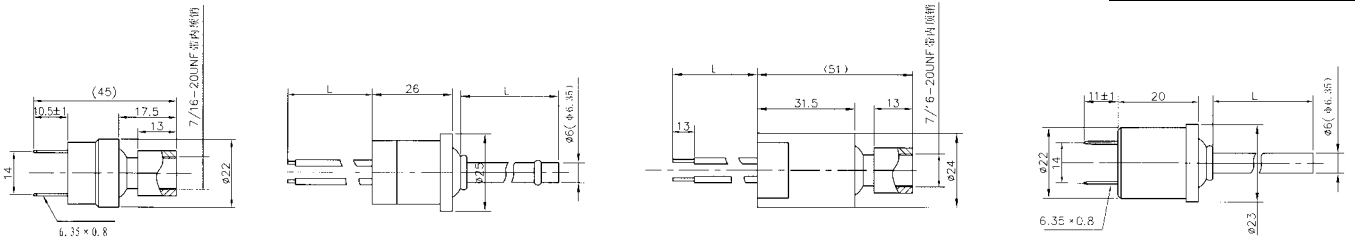
YK Series Single Cut Single Thrower Auto-Reset Pressure Control
(YK-01H YK-02H YK-03H YK-01L YK-02L YK-03L)

产品特点 Product Specifications

采用英制管螺纹快速接头或铜管焊接式安装结构，使用方便，安装灵活，无须特殊的安装固定。
插片式或导线式连接方式可供用户任意选择。
单刀单掷型开关方式，常开式或常闭式开关接点结构可供任意选择。
熔焊密封式不锈钢压力感应器和全密封开关结构安全可靠。
在3~800PSI(0.02~5.5 Mpa)压力范围内可根据用户要求任意选定压力值进行制造。
产品在出厂前其压力参数在工厂已按要求设定好，无需再设定，可直接使用。
Adopting Eng. thread quick connector (copper flare connection) or brass tube welding fitting structure, flexibly setting, easy to use and no special need for mounting and fixing .
Plugging or wiring connection designed to customers' choice.
SPST connection, normal open or normal close structure to customers' choice.
Security and reliability by adopting fusion welding stainless steel pressure inductor and full air-tight connection.
Any pressure value within 3~800 PSI (0.02~5.5MPa) can be made based on customers' requirement.
Pre-set pressure parameter before delivery allows direct use without resetting on the customers' site.



典型外形图 Typical Outline Drawing



工作原理 Operating Principle

该系列压力控制器主要利用内置的不锈钢可翻转动作膜片在感应到一定压力后可向反方向翻转的特性进行制造。当膜片动作时，会通过一个导杆带动电气触点的吸合或打开。当感应压力降低至恢复值以下时，开关即可自动复位。
The series of pressure control are made based on the theory that an inside reversible stainless steel motion diaphragm turns over when inducing certain pressure. The electric contact opens or closes with the leader when the diaphragm moves. The switch resets automatically when induced pressure reduces below rated value.

用途 Application

该系列产品主要用于家用、商用、汽车空调、制冰机等制冷系统中的高、低压力保护控制，也可适用于各种空压机、设备工具、农用机械的液压和汽压的控制系统中。
The series of pressure control are used to the high, low pressure protection of some refrigeration system like residential, commercial, automobile air-conditioner and ice maker etc. It can also be used to hydraulic pressure and steam pressure control system of all kinds of air compressor, equipment or tool and agricultural machine.

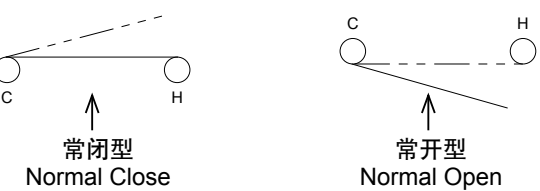
设计参数 Designed Parameter

工作压力范围：3~800PSI (0.02~5.5MPa)
爆破压力：5000PSI
环境温度：-30℃~+80℃
系统介质温度：-50℃~+120℃
额定电流下的寿命次数：30,000次，50,000次，100,000次可供选择
电气规格：24Vac 时常规电气容量125VA
120/240Vac时常规电气容量375VA
抗电强度：断开触点间为AC700V/S，端子对外壳为AC2000V/S
安全耐压：压力控制器可承受的不影响动作设定值的压力。

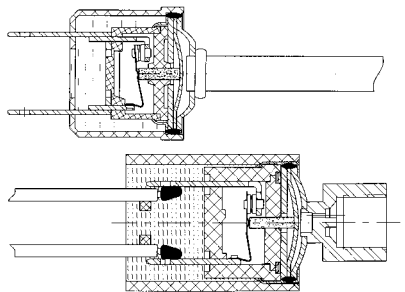
- ◆ Working pressure range: 3~800PSI (0.02~5.5MPa)
- ◆ Burst Pressure: 5000PSI
- ◆ Ambient temperature: -30℃~+80℃
- ◆ System medium temperature: -50℃~+120℃
- ◆ Life cycles under the rated electric current: 30,000 times, 50,000 times and 100,000 times optional
- ◆ Electrical Rating: At 24Vac, normal electric capacity: 125VA
At 120/240Vac, normal electric capacity: 375VA
- ◆ Dielectric Strength: Between disconnected contacts: AC700V/S
Terminal to outer shell: AC2000V/S
- ◆ Safety proof pressure: The pressure that the control can endure while not affects the rated motion value

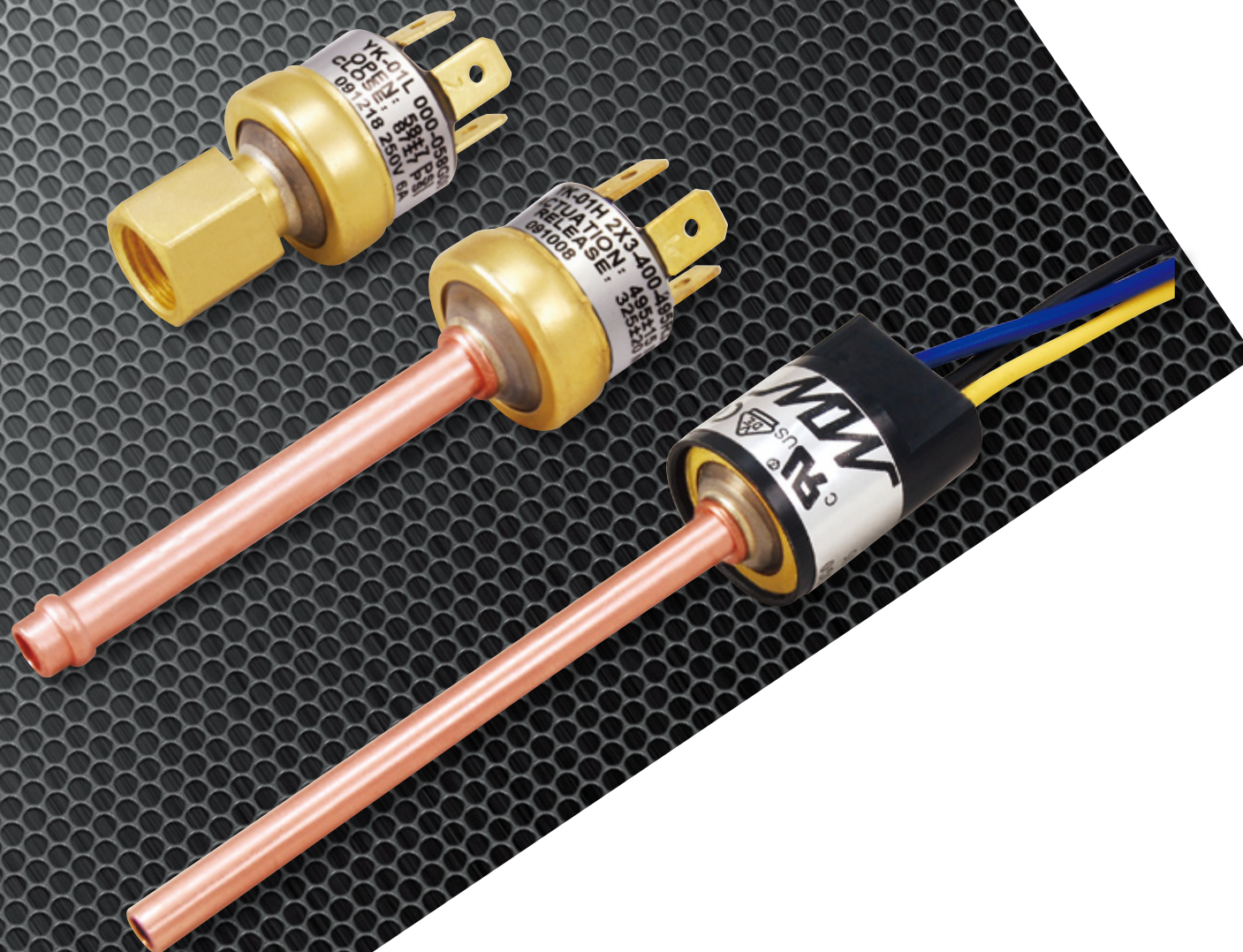
最高工作压力范围 The highest range of working pressure	安全耐压 Safety proof pressure
<145PSI(1MPa)	250PSI(1.7MPa)
145PSI(1MPa)~400PSI(2.75MPa)	600PSI(4.1MPa)
>145PSI(2.75MPa)	800PSI(5.5MPa)

电气原理图 Electric Theory Drawing



典型结构图 Typical Structure Drawing





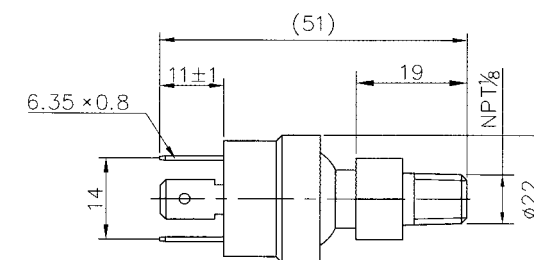
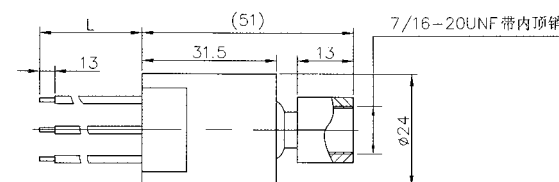
YK系列单刀双掷自动复位 压力控制器

YK Series Single Cut Double Thrower Auto-reset Pressure Control
(YK-01H YK-02H YK-03H YK-01L YK-02L YK-03L)

产品特点 Product Specifications

- ◆ 单刀双掷型开关方式，双电路自动转接。
- ◆ 熔焊密封式不锈钢感应器，全封闭开关结构安全可靠。
- ◆ 英制管螺纹快速接头或铜管焊接式安装结构可供选用。
- ◆ 插片或导线连接方式可供任意选择。
- ◆ 在3~800PSI(0.02~5.5 MPa)压力范围内可根据用户要求的压力值进行制造。
- ◆ 产品在出厂前其工作压力参数已在工厂按要求设定好，使用时无需再设定。
- ◆ Single cut double thrower switch mode, double circuits commutate automatically
- ◆ Security and reliability by adopting fusion welding stainless steel pressure inductor and full air-tight connection.
- ◆ Adopting Eng. thread quick connector (copper flare connection) or brass tube welding fitting structure
- ◆ Plugging or wiring connection designed to customers' choice.
- ◆ Any pressure value within 3~800 PSI (0.02~5.5MPa) can be made based on customers' requirement.
- ◆ Pre-set pressure parameter before delivery allows direct use without resetting on the customers' site.

典型外形图 Typical Outline Drawing



工作原理 Operating Principle

- ◆ 该系列压力开关主要利用内置不锈钢膜片在感应到一定压力后可向相反方向翻转的特性制造。当膜片动作时，会通过一个导杆推动电气触点(H)断开，同时接通电气触点(L)。当系统压力降低时，膜片瞬时复位，电气触点在开关簧片的作用下自动从触点L断开并与触点H闭合。
- ◆ The series of pressure switches are made based on the theory that an inside reversible stainless steel motion diaphragm turns over when inducing a certain pressure. The electric contact (H) opens and electric contact (L) closes simultaneously when the diaphragm moves. When the system pressure reduces, the diaphragm resets instantly, with the function of which, the electric contact disconnects from contact (L) and connects with contact (H) automatically.

用途 Application

- ◆ 该系列产品主要用于空调制冷系统和精密压力控制系统中，也可用于各种设备工具的精确高低压力保护。
- ◆ The product is mainly used in refrigeration system of air-conditioner and precise pressure control system; It can also be used as the precise high-low pressure protection of variety of equipments and tools.

设计参数

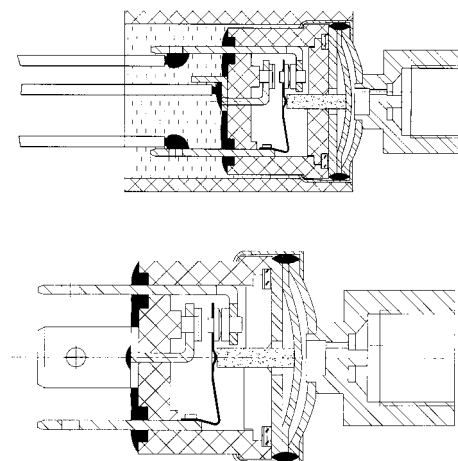
- ◆ 工作压力范围：3~800PSI(0.02~5.5MPa)
- ◆ 爆破压力：5000PSI
- ◆ 环境温度：-30℃~+80℃
- ◆ 系统介质温度：-50℃~+120℃
- ◆ 额定电流下的寿命次数：30,000次，50,000次，100,000次可供选择
- ◆ 电气规格：24Vac时常规电气容量125VA
120/240Vac时常规电气容量375VA
- ◆ 安全耐压：断开触点间为AC700V/S，端子对外壳为AC2000V/S
- ◆ 安全耐压：压力控制器可承受的不影响动作设定值的压力。

最高工作压力范围 The highest range of working pressure	安全耐压 Safety proof pressure
<145PSI(1MPa)	250PSI(1.7MPa)
145PSI(1MPa)~400PSI(2.75MPa)	600PSI(4.1MPa)
>145PSI(2.75MPa)	800PSI(5.5MPa)

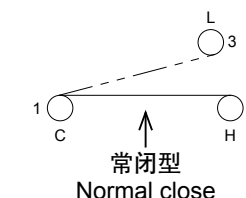
Designed Parameter

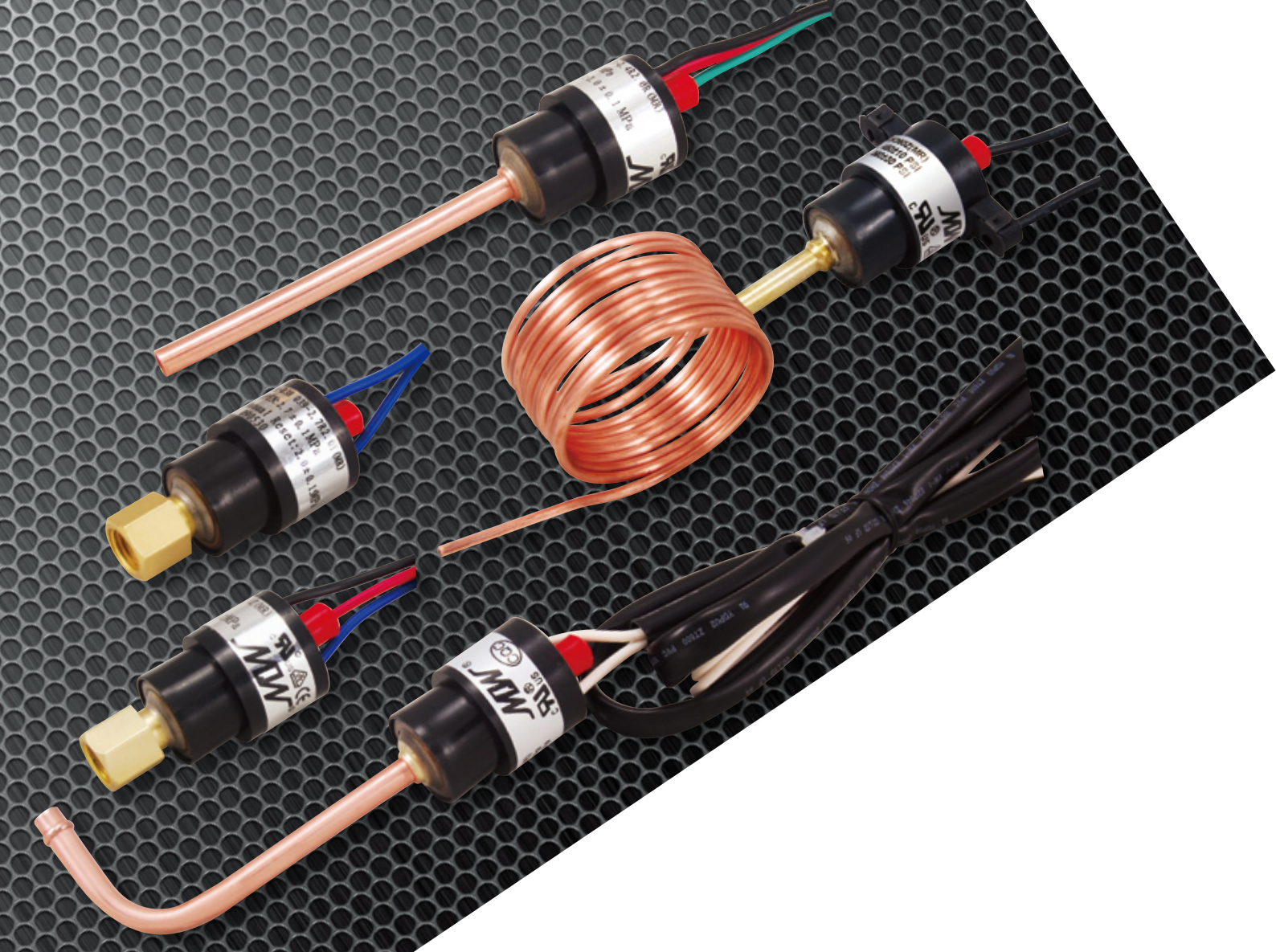
- ◆ Working pressure range: 3~800PSI (0.02~5.5MPa)
- ◆ Burst Pressure: 5000PSI
- ◆ Ambient temperature: -30℃~+80℃
- ◆ System medium temperature: -50℃~+120℃
- ◆ Life cycles under the rated electric current: 30,000 times, 50,000 times and 100,000 times optional
- ◆ Electrical Rating: At 24Vac, normal electric capacity: 125VA
At 120/240Vac, normal electric capacity: 375VA
- ◆ Dielectric Strength: Between disconnected contacts: AC700V/S
Terminal to outer shell: AC2000V/S
- ◆ Safety proof pressure: The pressure that the control can endure while not affects the rated motion value

典型结构图 Typical Structure Drawing



电气原理图 Electric Theory Drawing





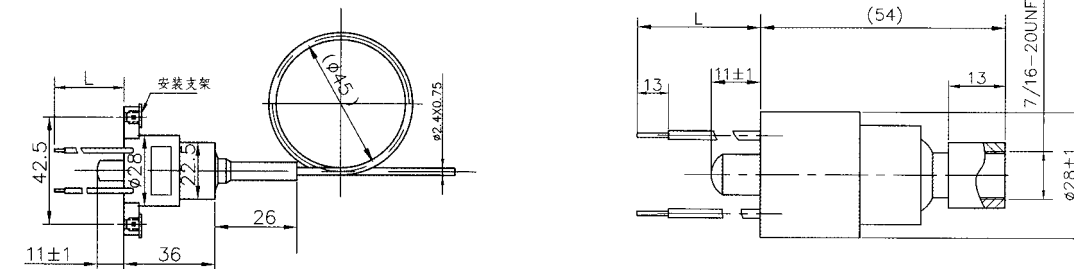
YK系列手动复位压力控制器

YK Series Manual Reset Pressure Controls

产品特点 Product Specifications

- ◆ 采用英制管螺纹快速接头或铜管(含毛细管)焊接式连接结构, 安装方便, 可满足不同的需要。
- ◆ 外壳采用板装式(自带安装耳)或线装式(无需另外固定)两种安装方式, 可供用户任意选择。
- ◆ 密封式双保险碟片不锈钢感应器, 确保在压力作用下自动快速断开开关接头, 并切断开关接头与系统内压力的联系, 确保系统不因意外接通开关启动机器而导致机器损坏, 特别安全可靠。
- ◆ 独立的自动断开和手动复位双结构设计, 极大地提高了压力保护的安全性和可靠性。
- ◆ Adopt Eng. thread quick connector (copper flare connection) or brass tube (incl. capillary) welding connecting structure, easy to mount for different needs.
- ◆ Board-assembly (with mounting ears) or wire-assembly (no need for separate fixing) can be chosen for outer shell assembly.
- ◆ The air-tight bi-security disc and stainless steel sensor ensure that the switch opens instantly automatically under the pressure and cuts off the connection between the switch contact and the pressure inside the system. The system will not be able to start up the machine by accidentally actuating the pressure switch, which is safe and reliable enough to prevent the machine from damaging.
- ◆ The independent structure design of auto switching off and manual resetting enhances the maximum security and stability for the pressure protection.

典型外形图 Typical Outline Drawing



工作原理 Operating Principle

- ◆ 当系统内压力高于额定的安全压力时, 感应器内压力感应碟片瞬时发生动作, 通过推杆推动保险碟片达到锁定位置, 同时经保险碟片通过连接导杆推动开关断开。当压力降低时, 感应碟片自动复位, 因保险碟片已处于锁定位置而不能自动复位, 开关不能接通。只有当按动外部按钮, 强制推动保险碟片解除锁定达到开关接头接通状态时, 系统才能恢复正常工作状态。
- ◆ When pressure inside the system is higher than rated safe pressure, the sense disc starts to function instantly, resulting in pushing the security disc to the lock position by the rod and cutting off the switch by security disc through connecting rod at the same time. When the pressure reduces, the sense disc resets automatically while the security disc can't reset because it is at the lock position, hence the switch can't cut in. The system will reset to normal status only when pressing the outside button to push the security disc forcibly to unlock in order to cut in the switch.

用途 Application

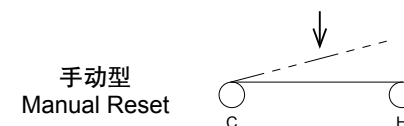
- ◆ 该系列压力开关适用于对压力保护有特殊要求的各类空调制冷系统及各种设备、工具压力系统超压保护作用的广泛场合。该压力开关可直接安装在管路上, 或根据设备要求安装于设备面板上。
- ◆ The series of switches are used to all air conditioning and refrigeration systems that require special pressure protection and broad range of extra-high pressure protection for the pressure systems of variety of tools and equipments. They can be directly installed on the pipeline or on the control panel based on the equipments situation.

设计参数 Designed Parameter

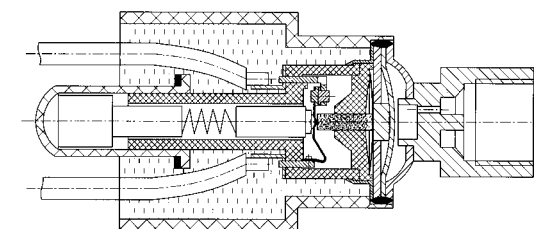
- ◆ 工作压力范围: 145~800PSI (1~5.5MPa)
- ◆ 爆破压力: 5000PSI
- ◆ 环境温度: -30°C ~ +80°C
- ◆ 系统介质温度: -50°C ~ +120°C
- ◆ 电气规格: 24Vac时常规电气容量125VA
120/240Vac时常规电气容量375VA
- ◆ 抗电强度: 断开触点间为AC700V/S, 端子对外壳为AC2000V/S
- ◆ 安全耐压: 压力控制器可承受的不影响动作设定值的压力。
- ◆ Working pressure range: 145~800PSI (1~5.5MPa)
- ◆ Burst Pressure: 5000PSI
- ◆ Ambient temperature: -30°C ~ +80°C
- ◆ System medium temperature: -50°C ~ +120°C
- ◆ Electrical Rating: At 24Vac, normal electric capacity: 125VA
At 120/240Vac, normal electric capacity: 375VA
- ◆ Dielectric Strength: Between disconnected contacts: AC700V/S
Terminal to outer shell: AC2000V/S
- ◆ Safety proof pressure: The pressure that the control can endure while not affects the rated motion value

最高工作压力范围 The highest range of working pressure	安全耐压 Safety proof pressure
145PSI(1MPa)~400PSI(2.75MPa)	600PSI(4.1MPa)
>400PSI(2.75MPa)	800PSI(5.5MPa)

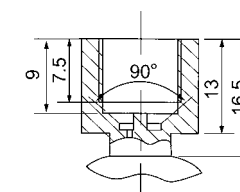
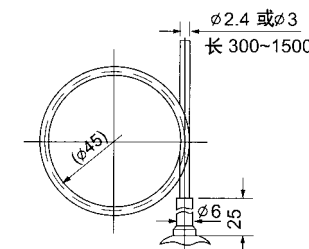
电气原理图 Electric Theory Drawing



典型结构图 Typical Structure Drawing



典型接口图 Typical Connector Drawing



1/4" Female Flare With Deflator
7/16"-20内螺纹接头

YK Series Vacuum Pressure Control

采用英制管螺纹快速接头或铜管焊接式安装结构，使用方便，安装灵活，无须特殊的安装固定。
 插片式或导线式连接方式可供用户任意选择。
 单刀单掷型开关方式，常开式或常闭式开关接点结构可供任意选择。
 熔焊密封式不锈钢压力感应器和全密封开关结构安全可靠。
 真空压力值最低可达到15in.Hg(英寸汞柱)
 在15 in.Hg~8PSI(-0.1~0.05 MPa)压力范围内可根据用户要求任意选定压力值进行制造。
 产品在出厂前其压力参数在工厂已按要求设定好，无需再设定，可直接使用。
 Adopting Eng. thread quick connector (copper flare connection) or brass tube welding fitting structure.
 flexibly setting, easy to use and no
 special need for mounting and fixing .
 Plugging or wiring connection designed to customers' choice.
 SPST connection, normal open or normal close structure to customers' choice.
 Security and reliability by adopting fusion welding stainless steel pressure inductor and full air-tight
 connection.
 The minimum vacuum pressure can be 15in.Hg
 Any pressure value within 15in.Hg~8PSI (-0.1~0.05MPa) can be made based on customers' requirement.
 Pre-set pressure parameter before delivery allows direct use without resetting on the customers' site.

Technical drawings of three types of ball valves, showing dimensions in millimeters (mm).

1. Ball Valve with Flange (Type 1):

- Overall length: L
- Flange diameter: $\phi 22$
- Flange thickness: 14
- Ball diameter: $\phi 10.5 \pm 1$
- Ball length: 17.5
- Ball width: 13
- Stem diameter: $\phi 6.35$
- Stem length: 26
- Stem end diameter: $\phi 6.35$
- Connection: $7/16-20UNF$ (Right Hand Thread)
- Bottom connection: 6.35×0.8

2. Ball Valve with Flange (Type 2):

- Overall length: L
- Flange diameter: $\phi 22$
- Flange thickness: 14
- Ball diameter: $\phi 10.5 \pm 1$
- Ball length: 17.5
- Ball width: 13
- Stem diameter: $\phi 6.35$
- Stem length: 26
- Stem end diameter: $\phi 6.35$
- Connection: $7/16-20UNF$ (Right Hand Thread)
- Bottom connection: 6.35×0.8

3. Ball Valve with Flange (Type 3):

- Overall length: L
- Flange diameter: $\phi 22$
- Flange thickness: 14
- Ball diameter: $\phi 10.5 \pm 1$
- Ball length: 17.5
- Ball width: 13
- Stem diameter: $\phi 6.35$
- Stem length: 26
- Stem end diameter: $\phi 6.35$
- Connection: $7/16-20UNF$ (Right Hand Thread)
- Bottom connection: 6.35×0.8

该系列压力控制器主要利用内置的不锈钢可翻转动作膜片在感应到一定压力后可向反方向翻转的特性进行制造。当膜片动作时，会通过一个导杆带动电气触点的吸合或打开。当感应压力降低至恢复值以下时，开关即可自动复位。

The series of pressure control are made based on the theory that an inside reversible stainless steel motion diaphragm turns over when inducing certain pressure. The electric contact opens or closes with the leader when the diaphragm moves. The switch resets automatically when induced pressure reduces below rated value.

主要用于其保护压力值为负压（低于正常大气压）的各种制冷设备低压系统的保护，也可用于气动、液压、润滑油系统的控制。
These pressure controller are used to protect the low pressure system of the refrigeration equipment which pressure is negative.(under normal atmospheric pressure). It can also be used for control of pneumatic, hydraulic, lubricating oil system.

工作压力范围: 15in.Hg~8PSI (-0.1~0.05MPa)
 爆破压力: 2500PSI
 环境温度: -30℃~+80℃
 系统介质温度: -50℃~+120℃
 额定电流下的寿命次数: 30,000次, 50,000次, 100,000次可供选择
 电气规格: 24Vac 时常规电气容量125VA
 120/240Vac时常规电气容量375VA
 抗电强度: 断开触点间为AC700V/S, 端子对外壳为AC2000V/S
 安全耐压: 压力控制器可承受的不影响动作设定值的压力。

- ◆ Working pressure range: 15in.Hg~8PSI (-0.1~0.05MPa)
- ◆ Burst Pressure: 2500PSI
- ◆ Ambient temperature: -30℃~+80℃
- ◆ System medium temperature: -50℃~+120℃
- ◆ Life cycles under the rated electric current:
30,000 times, 50,000 times and 100,000 times optional
- ◆ Electrical Rating: At 24Vac, normal electric capacity: 125VA
At 120/240Vac, normal electric capacity: 375VA
- ◆ Dielectric Strength: Between disconnected contacts:
AC700V/S
Terminal to outer shell: AC2000V/S
- ◆ Safety proof pressure: The pressure that the control can endure while not affects the rated motion value

The diagram shows two valve symbols. The left symbol, labeled 'Normal Close', consists of a circle with a horizontal line extending to the right, ending in another circle. A dashed line branches off the horizontal line at an angle upwards. Below it is the text '常闭型' and 'Normal Close'. The right symbol, labeled 'Normal Open', consists of a circle with a horizontal dashed line extending to the right, ending in another circle. A solid line branches off the horizontal line at an angle downwards. Below it is the text '常开型' and 'Normal Open'.

The image contains two technical drawings of a mechanical assembly. The top drawing is a cross-sectional view of a housing or casing, showing internal components like a bearing and a shaft. The bottom drawing is a detailed view of a shaft and bearing assembly, showing the shaft, bearing, and housing details.



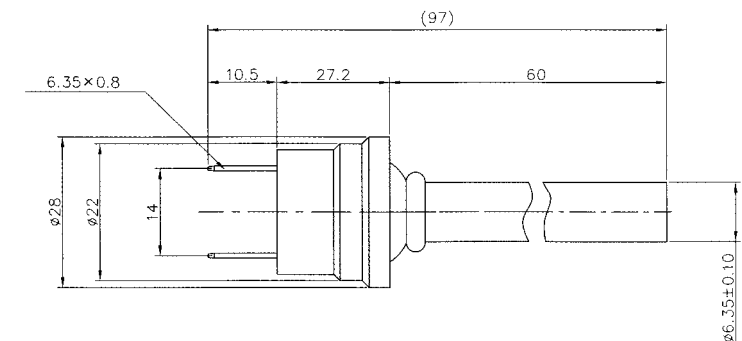
YK系列超高压自动复位 压力控制器(CO₂冷媒用)

YK Series Extra-High Pressure Auto-reset Pressure Control

产品特点 Product Specifications

- ◆ 采用英制管螺纹快速接头或铜管焊接式结构，使用方便，安装灵活，无需特殊的安装固定；
- ◆ 插片式或导线式连接方式可供用户任意选择；
- ◆ 单刀单掷型开关方式，常开式开关接点结构；
- ◆ 熔焊密封式不锈钢压力感应器外加钢制防爆外壳，安全可靠；
- ◆ 在1305PSI~2610PSI(9~18MPa)压力范围内可根据用户要求任意选定压力值进行制造；
- ◆ 产品在出厂前其压力参数在工厂已按要求设定好，无需再设定，可直接使用；
- ◆ Adopt Eng. thread quick connector (copper flare connection) or brass tube welding structure, easy to use and no special installing requirement.
- ◆ Plugging or wiring connection designed to customers' choice.
- ◆ Single cut single thrower switch mode and normal open structure..
- ◆ Security and reliability by adopting fusion welding stainless steel pressure inductor covered by burst-proof outer shell made of steel.
- ◆ Any pressure value within 1305PSI~2610PSI (9~18MPa) can be made based on customers' requirement.
- ◆ Pre-set pressure parameter before delivery allows direct use without resetting on the customers' site.

典型外形图 Typical Outline Drawing



工作原理 Operating Principle

- ◆ 该系列压力开关主要利用内置的不锈钢可翻转动作膜片在感应到一定压力后可向反方向翻转的特性进行制造。当膜片动作时，会通过一个导杆带动电气触点的打开。当在感应压力降低至恢复值以下时，压力开关即可自动复位。
- ◆ The series of pressure control are made based on the theory that an inside reversible stainless steel motion diaphragm turns over when inducing certain pressure. The electric contact opens with the leader when the diaphragm moves. The switch resets automatically when induced pressure reduces below rated value.

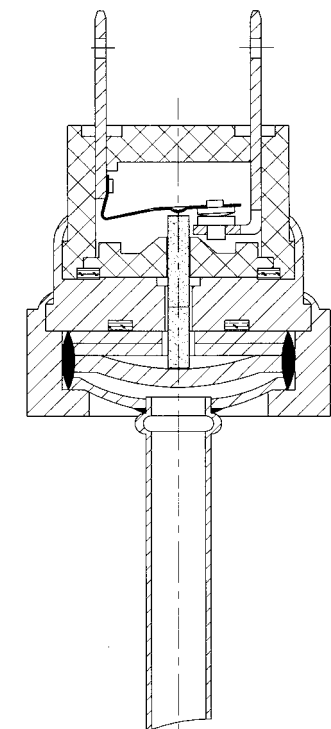
用途 Application

- ◆ 该系列产品是专门针对使用二氧化碳作为制冷剂的制冷设备，其制冷系统压力大大高于常规制冷剂压力的特殊要求而设计制造，用于系统的高压保护；同时也适用于各类系统高压保护压力大于800PSI(5.5MPa)的设备及工具。
- ◆ The series of products are specially designed and manufactured for the refrigeration equipment using CO₂ as refrigerant, the pressure of this kind of refrigeration system is much higher than that of the normal system. The product also applies to all equipments and toolings with the high protection pressure over 800PSI(5.5 MPa).

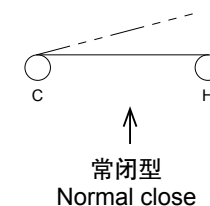
设计参数 Designed Parameter

- ◆ 工作压力范围：1305~2610PSI(9~18MPa)
- ◆ 爆破压力：10440PSI(72MPa)
- ◆ 环境温度：-30℃~+80℃
- ◆ 系统介质温度：-50℃~+120℃
- ◆ 电气规格：24Vac时常规电气容量125VA
120/240Vac时常规电气容量375VA
- ◆ 抗电强度：断开触点间为AC700V/S，端子对外壳为AC2000V/S
- ◆ Working pressure range: 1305-2610PSI(9~18MPa)
- ◆ Burst Pressure: 10440PSI(72MPa)
- ◆ Ambient temperature: -30℃~+80℃
- ◆ System medium temperature: -50℃~+120℃
- ◆ Electrical Rating: At 24Vac, normal electric capacity: 125VA
At 120/240Vac, normal electric capacity: 375VA
- ◆ Dielectric Strength: Between disconnected contacts: AC700V/S
Terminal to outer shell: AC2000V/S

典型结构图 Typical Structure Drawing



电气原理图 Electric Theory Drawing



DYK系列电子压力传感器 DYK Series Electronic Pressure Sensor

概述 Brief Introduction

本系列压力传感器采用高精度、高稳定性的干式陶瓷压阻式压力敏感元件和高可靠性的放大芯片，将被测介质的压力转换成标准电信号。采用全自动贴片和激光调较技术及先进的装配工艺，确保了该产品的品质。是一种具有国际先进技术水平的新型压力传感器。特别适用于汽车和空调制冷设备的压力控制。具有电压输出型和电流输出型供客户选择。

The series of pressure sensor adopts dry ceramic piezoresistive pressure sensitive components with high precision and good stability, and reliable Amplifier chip. It can change the pressure of tested medium into standard signal. Automatic SMD, laser adjustment technology and advanced assembly process are applied to guarantee its high quality. The series of pressure sensor is a new type with international advanced technology, which is applicable to pressure control for automobiles and HVAC&R Equipments. Voltage output or electrical current output can be designed to customers' choice.

产品特点 Features

◆ 采用先进的整体化芯片技术,精度高、一致性好、稳定性好、响应速度快。

Adopt advanced integration chip technology, with high precision, good consistency, perfect stability and quick response.

◆ 过压、过流及方向保护功能,使用安全可靠。

Integrate the function of over-voltage and over-current protection and reverse protection, safe to use.

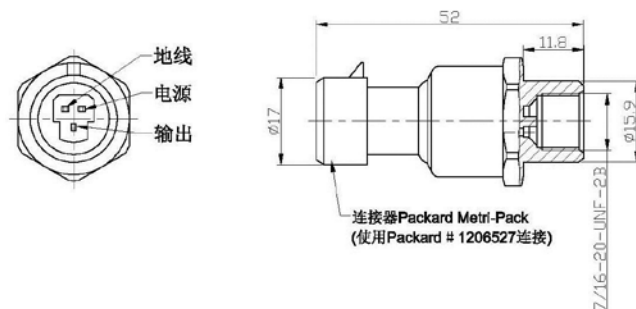
◆ 通过EMC试验、抗电磁干扰能力强。

Pass EMC test and have strong resistance to electromagnetic interference.

◆ 采用标准化和成本优化设计,产品体积小,安装方便,性价比特高。

With standard and cost-optimized design, the product is in smart size, easy to assemble, and with good quality at competitive price.

典型外形图 Typical Outline Drawing

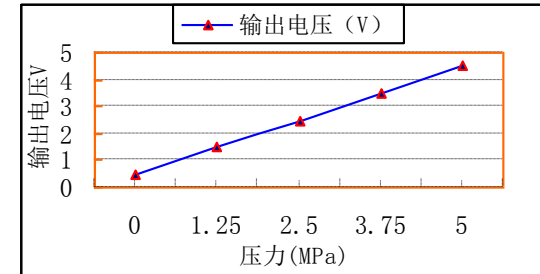


设计参数 Designed Parameter

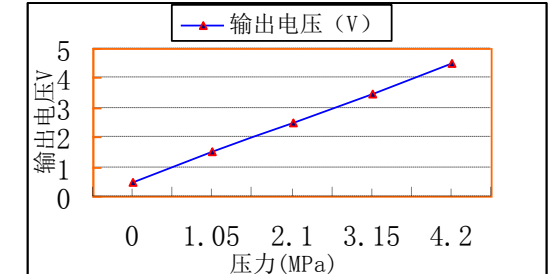
1. 量程范围: 0~50bar
 2. 供电电压:
电压输出型: $5 \pm 0.25\text{VDC}$ (电压型);
16V正向过载保护, -14V方向保护
电流输出型: 8~30VDC; 带反极性保护
 3. 输出方式:
电压输出型: 比例电压输出0.5~4.5V标准信号输出
电流输出型: 4~20mA标准信号输出
 4. 综合精度: $\pm 2.5\%\text{FS}$
 5. 工作温度: $-40 \sim 125^\circ\text{C}$
 6. 响应时间: $< 1\text{ms}$
 7. 温度漂移: $\pm 0.02\%\text{FS}/^\circ\text{C}$
 8. 线性、迟滞、重复性: $< \pm 0.5\%\text{FS}$
 9. 稳定性: 优于0.15%FS/年
 10. 外壳材料: 铜
 11. 外壳防护等级: IP67
 12. 螺纹接口: 7/16-20UNF (内螺纹) 用户可自选
 13. 电器连接: 标准Packard Metri-Pack连接器
 14. 接线方式: 三线制电压: 红(+), 黑(地), 绿(输出)
1. Measurement range: 0~50 bar.
 2. Voltage of power Supply:
◆ Voltage Output: $5 \pm 0.25\text{VDC}$ (voltage type) . Positive overload protection at 16V and reverse protection at -14V.
◆ Current Output: 8~30VDC; with reverse polarity protection
 3. Output mode:
◆ Voltage Output: Proportional voltage output 0.5~4.5V standard signal output.
◆ Current Output: 4~20mA standard signal output.
 4. Comprehensive Precision: $\pm 2.5\%\text{FS}$
 5. Working temperature: $-40 \sim 125^\circ\text{C}$
 6. Response time: $< 1\text{ms}$
 7. Temperature shift: $\pm 0.02\%\text{FS}/^\circ\text{C}$
 8. Linearity, delay and repeatability: $< \pm 0.5\%\text{FS}$
 9. Stability: better than 0.15% FS/year
 10. Shell material: copper
 11. Protection level of the shell: IP67
 12. Thread connection: 7/16-20UNF (female flare type), designed to customers' choice.
 13. Electrical connection: standard Packard Metri-Pack Connector.
 14. Wire connection: three-wire voltage, red (+), black (ground) and green (output)

典型型号传感器输入压力与输出信号关系图

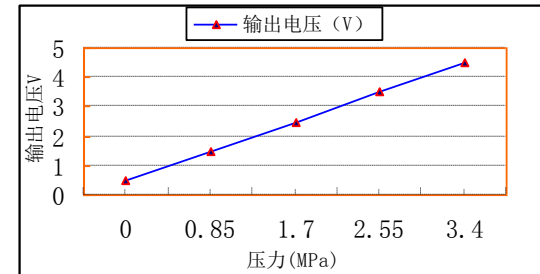
Typical relationship chart between Input Pressure and Output Signal of the pressure sensor



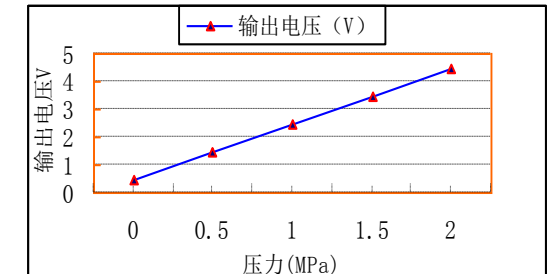
DYK BA050DV5-4.5



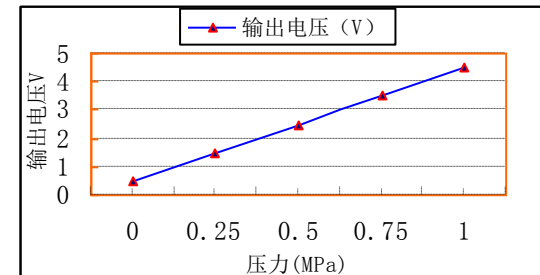
DYK BA042DV5-4.5



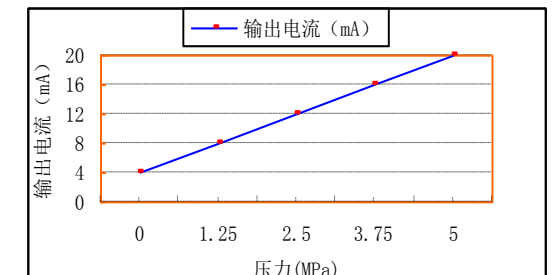
DYK BA034DV5-4.5



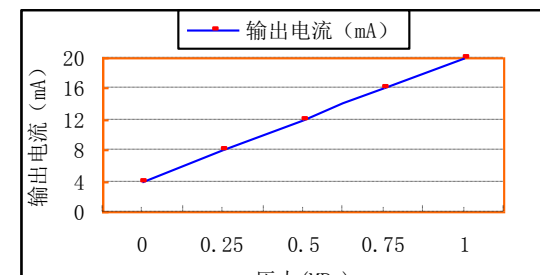
DYK BA020DV5-4.5



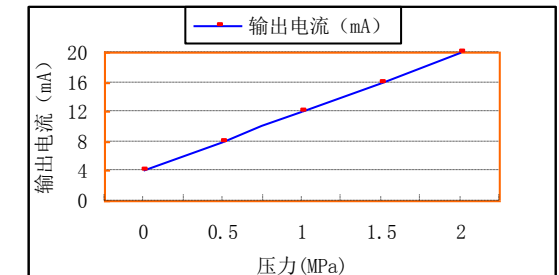
DYK BA010DV5-4.5



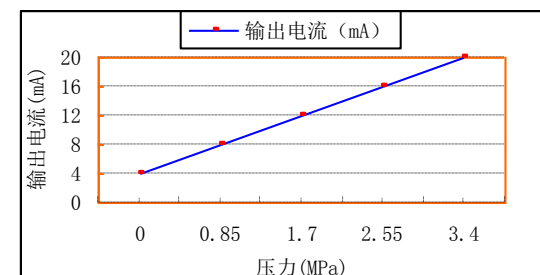
DYK BA050DV8-20I



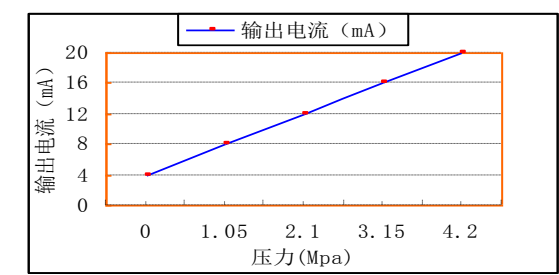
DYK BA010DV8-20I



DYK BA020DV8-20I



DYK BA034DV8-20I



DYK BA042DV8-20I

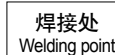
Operation Instruction of YK series Pressure Control

- ◆ 对于工作压力在145PSI(1MPa)至800PSI(5.5MPa)的压力控制器在检验和使用时应有限压装置，避免大于800PSI (5.5MPa) 的高压冲击。
- ◆ 对于工作压力低于145PSI(1MPa)的压力控制器在检验和使用时，应有限压装置（减压器），避免大于250PSI (1.72MPa) 的高压冲击。

- ◆ A pressure reducer must be used when testing and operating the pressure control with working pressure ranging from 145PSI(1Mpa)to 800PSI(5.5Mpa) to avoid high pressure punch over 800PSI (5.5Mpa).
- ◆ A pressure reducer (reductor) must be used when testing and operating the pressure control with working pressure below 145PSI (1Mpa) to avoid high pressure punch over 250PSI (1.72Mpa).

◆ 对于铜管焊接式产品在装配时应采用水冷焊接工艺, 避免高温损伤。

◆ When assembling brass tube products, water-cool welding process must be used to avoid injury caused by over temperature.



动作压力值(Psi) Working pressure (PSI)	高低压比(%) Hi-Low pressure dif.ratio(%)	最小公差(±)(Psi) Minimum tolerance(±)(PSI)
3-29	50~70	3
30-80	45~60	5
81-160	50~70	7
161-240	60~75	10
241-350	60~70	15
351-450	65~80	15
451-500	65~80	20
501-800	70~80	25

压力单位换算: 1MPa = 145PSI = 10bar = 10.2Kg/cm²
Pressure unit conversion: 1MPa = 145PSI = 10bar = 10.2Kg/cm²

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The model number instruction of YK series Pressure Controls



MATCH-WELL

曼淇威压力控制器

Pressure Controller



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