

YX,YXC 系列电接点压力表

YX, YXC series pressure gauge with electric contact

用途说明 Application Description

电接点压力表适用于测量对铜合金无腐蚀、无爆炸危险、非结晶的各种液体、气体等介质的压力。仪表经与相应的电气器件配套使用，可达到对被测压力系统实现预先设定的最大或最小压力值的双位自动控制 and 发信(报警)的目的。

仪表具有测量控制功能，可任意设定上、下控制压力值，动作稳定可靠，在石油、化工、电站、冶金等工业企业及机电设备上广泛配套使用。

This gauge is suited for measuring the pressure of those gases or liquids which neither corrode copper alloys nor explode, nor crystallize. If the gauge is linked with the corresponding electric equipment, it will realize double controlling to the maximal pressure measurement and minimal pressure measurement.

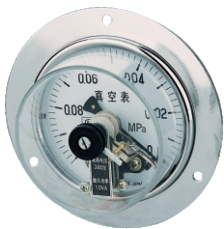
This gauge have the function of measuring and controlling, and can set the up limit and down limit pressure value. And the measurement was reliable. This gauge is well suited for the oil industry and chemical industry and power station and usually is link with the electric equipment.



YX-100



YXC-150



ZX-100ZT



YXC150

结构原理 Structure

仪表由测量系统、指示装置、磁助电接点装置、外壳、调节装置及接线盒等组成。

当被测压力作用于弹簧管时，其末端产生相应的弹性变形一位移，经传动机构放大后，由指示装置在度盘上指示出来。同时指针带动电接点装置的活动触点与设定指针上的触头(上限或下限)相接触的瞬时，致使控制系统接通或断开电路，以达到自动控制和发信报警的目的。

在电接点装置的电接触信号针上，装有可调节的永久磁钢，可以增加接点吸力，加快接触动作，从而使触点接触可靠，消除电弧，能有效地避免仪表由于工作环境振动或介质压力脉动造成触点的频繁关断。所以该仪表具有动作可靠、使用寿命长、触点开关功率较大等优点。

This gauge is made up of the measuring system, indicative setting, magnetic resistance electric contact setting, outer case, adjusting setting and junction case.

When the service medium pressure acted on flexibility parts and make it move, with the help of the stick, magnified by the gear setting, and the pointer point it out on the dial. When the active contact of the contact setting touch the contact of the pointer (up limit or down limit), so that control to open or close the switch of the electrocircuit of the system. and realize the auto-controlling and sending out alarm.

When install the adjustable magnetism on the electric contact signal pointer of the electric contact setting, the magnetism will be strengthened, and firm the touch of the contacts, and eliminate electrical sparkle, so that the frequent opening or closing of the contact caused by the environmental vibration or the pulsation of the medium will be avoided. So this gauge has the character of reliable operation, long life and the great contact switch power.

型号描述 Model Description

Y X C - □ □ ZT

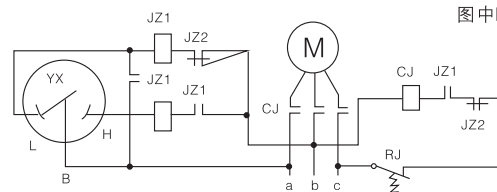
- 结构形式：轴向带边 Construction: back with flange
- 外壳材质 Shell material
- 仪表公称直径 Diameter
- 接点装置接触形式 Junction mounting: magnetic
- 磁助作用式 Magnetic aid
- 控制方式 Control way
- 缓行接点位式开关 Slow action acontacts position switch
- 仪表类别：压力仪表 Meter sort: pressure meter

接点装置电气参数及控制形式 Contact Setting Electric Data and Control Type

触头功率 Contact power	最高工作电压 Maximal voltage	最大工作电流 Maximal current	控制形式 Controlling type
30VA(阻性负载) 30VA(blocked load)	220V D.C或380V A.C 220V D.C or 380V A.C	1A	上下限、双上限、双下限 Lower and higher limit、doubt higher limit、doubt lower limit

Attention:when the current is 1 A,the voltage is no more than 40V.

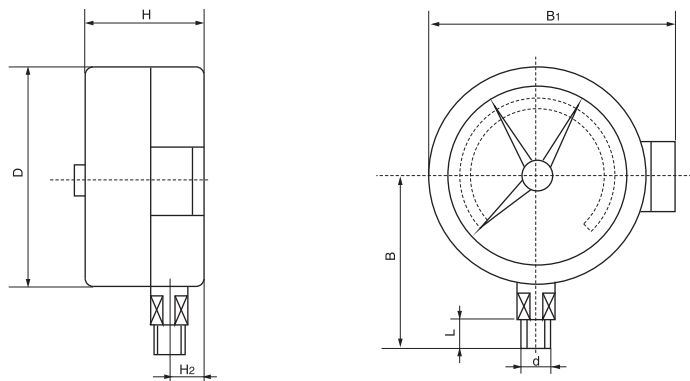
电气电路连接示意图 Electric Circuit Diagram



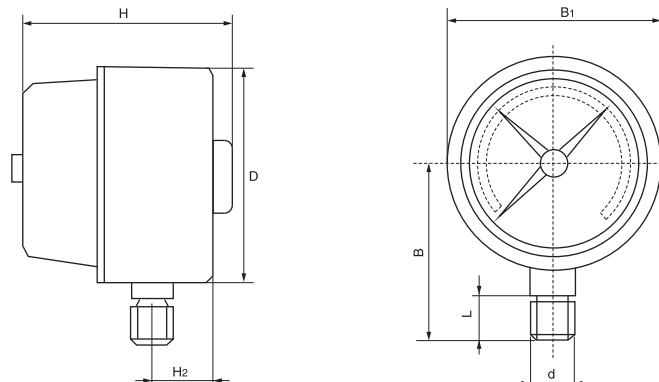
图中Detail: JZ1、JZ2—继电器及触点 Relay and contact spot
 CJ—接触器及触点 Contact machine and contact spot
 RJ—热继电器 Heat relay
 M—电机 Movement
 YX—电接点压力表 Junction pressine gauge
 L—下限接点(绿) Lower limit contact spot(green)
 H—上限接点(红) Higher limit contact spot(red)
 B—公共接点(黄) Public contact spot (yellow)

外形尺寸 Dimensions

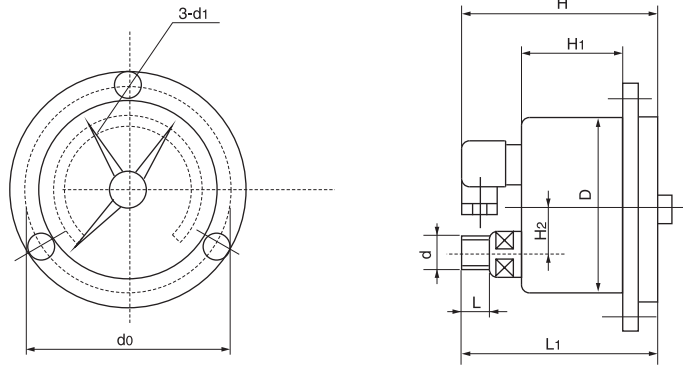
◇ YXC-100(1)、YXC-150(1)



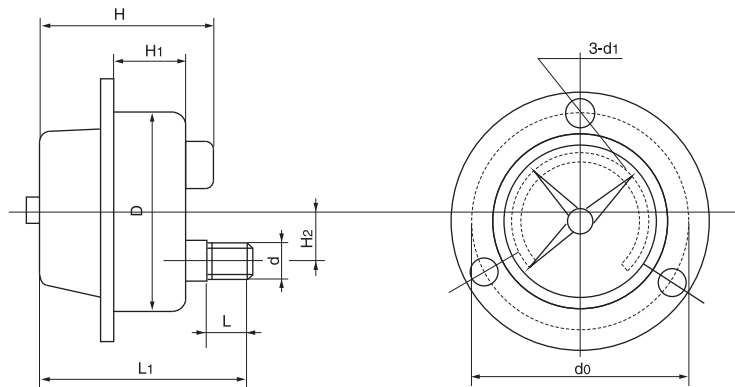
◇ YXC-100(2)、YXC-150(2)



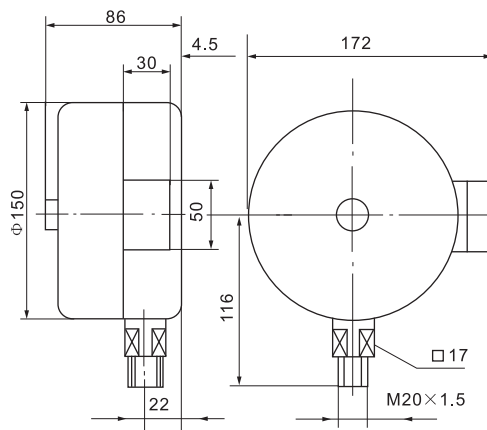
◇ YXC-100(1)ZT、YXC-150(1)ZT



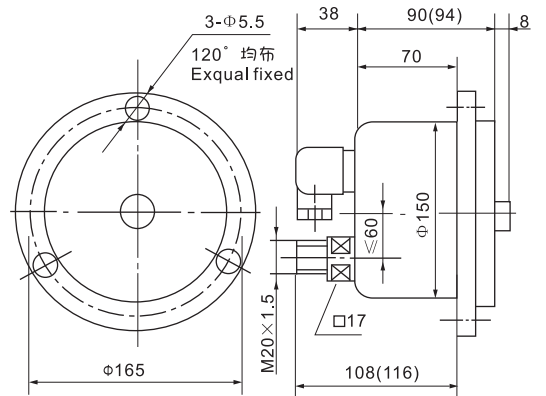
◇ YXC-100(2)ZT、YXC-150(2)ZT



◇ YXC-150、YXCA-150



◇ YXC-153



单位(Unit): mm

型号 Model	D	H	H ₁	H ₂	D ₀	d	d ₁	B	B ₁	L	L ₁
YXC-60	Φ60	46		13		M14×1.5		56	72	14	
YXC-100	Φ100	95		17		M20×1.5		87	121	20	
YXC-100ZT		96	33	30	118		5.5				115
YXC-150	Φ150	78		17	165	M20×1.5		113	150	20	
YXC-150ZT		78	40	30			100				

YX-160-B 防爆电接点压力表

YX-160-B explosion-proof pressure gauge with electric contact

用途说明 Application Description

防爆电接点压力表系按GB3836.1 83《爆炸性环境用防爆电气设备通用要求》和GB3836.2 83《爆炸性环境用防爆电气设备隔爆型电气设备“d”》的有关规定及相关标准进行设计，并经由国家指定的检验机构所审批的图样和技术文件进行制造。

仪表的防爆类别为II类隔爆型B级T4组，其标志为Exd II BT4。

仪表适宜在有爆炸危险的场所内用来测量非结晶、非凝固的爆炸性混合物或各种无爆炸性的介质压力。

仪表经与具有相应防爆性能或采取相应安全措施的电器器件(如继电器及接触器等)配套使用，便能对被控系统实现自动控制和发信(报警)的目的。

This explosion-proof electric junction prod pressure meter is designed according to GB3836.1.B83, the general requirement of the explosion-proof electric equipment on explosive environment, and GB3836.2.B3,the explosion-proof electric equipment and flame-proof electric equipment on explosive environment. Meanwhile,it is manufactured according to the chart and technique document approved by the identified testing organization.

The explosion-proof type of meters is II kind B grade T4 Group. The mark is Exd II BT4.

The meters can apply to measure pressure of non-crystal and non-concretion explosive intermixture or diversified novolatile medium.

The meters could automatic control and signal alarm if they work in the electric apparatus parts with explosion-proof or other safety(for example, relay , contactor ,etc.).



YX-160-B

主要技术指标 Main Technical Data

- ◇ 精确度等级：1.6
- ◇ 标度范围：0~0.16;0~0.25;0~0.4;0~0.6;0~1;0~1.6;0~2.5;0~4;0~6;
0~10;0~16;0~25;0~40;0~60;-0.1~0.06;-0.1~0.15;
-0.1~0.3;-0.1~0.5;-0.1~0.9;-0.1~1.5;-0.1~2.4MPa
- ◇ 控制方式：上、下限缓行接点开关
- ◇ 最高工作电压：DC 220V或 AC 380V;
- ◇ 触头功率：10VA
- ◇ 工作位置：垂直安装
- ◇ 使用环境条件：-10~50℃，相对湿度不大于80%，且爆炸性混合物应属于II B级T4组以下，工作振动和
被测介质的急剧脉动应对仪表触头的可靠动作无影响。
- ◇ 温度影响：示值不大于0.4%/10℃，设定点不大于0.6%/10℃(使用温度偏离20±5℃)。
- ◇ 绝缘强度：50Hz正弦交流电2000V历时一分钟
- ◇ 重量：6kg
- ◇ Precision grade: 1.6.
- ◇ Scale range: 0-0.16,0-0.25,0-0.4,0-0.6,0-1.0,0-2.5,0-4,0-6,0-10,
0-16,0-25,0-40,0-60,-0.1-0.06,-0.1-0.15,-0.1-0.3,
-0.1-0.5,-0.1-0.9,-0.1-1.5,-0.1-2.4MPa.
- ◇ Control mode: upper and lower limit slow action junction switch.
- ◇ Maximal working voltage: DC220V or AC380V.
- ◇ Contact power: 10VA.
- ◇ Working position: vertical setting.
- ◇ Permissible condition: -10-50℃, relative humidity not exceed 80%, the explosive intermixture should
lower than II kind B grade T4 Group, working oscillation and the medium pulsation should have no
effect on meter action.
- ◇ Temperature effect: displayed value will not exceed 0.4%/10℃, setting point will not exceed 0.6%/10℃
(working temperature deviates from 20±5℃).
- ◇ Insulating strength: 50Hz sine alternating current 2000V is lasting for one minute.
- ◇ Weight: 6Kg.

◇ 隔爆接合面型式及其基本参数

Flam-proof connection type and basic parameters

外壳容积 Case volume V(L)	> 0.5	
接合面型式 Connection cover type	平面 Plane	圆筒(可动部份) Cylinder(movable)
隔爆接合面的最小有效长度 Lmm The min effective length of flam-proof connection cover Lmm	15	
螺钉通孔边缘至隔爆接合面最小有效长度L1 The Min effective length from bolt hole edge to flam-proof connection L1	8	
隔爆接合面最大间隙或直径差Wmm The Max interspale of flam-proof connection or Diameter dispersion Wmm	0.15	
隔爆接合面的表面粗糙度Ra FalM-proof connection cover coarseness range Ra	3.2	1.6

注：隔爆接合面的有效长度和间隙宽度的范例可参见隔爆外壳结构示意图

Comments: length and dispersion width referring to Flam-proof case chart

◇ 隔爆外壳及导压系统等零件和材质

Flam-proof shell and accessory of the conducting pressure system

零件名称 Accessory designation	材料牌号或名称 Material brand or designation	零件名称 Accessory designation	材料牌号或名称 Material brand or designation
驱壳盖出线盒 Shell cover outlet box	ZL102(或ZL-102,ZL-101) ZL102(or ZL-102,ZL-101)	薄垫圈 Thin gasket	L3
		接头 Connector	20
轴套 Axisis cover	QAI9-2	弹簧管 Spring	3J53
观察窗 Watching window	有机玻璃 PMMA		

注：观察窗的材质其抗冲击强度不小于4J。观察窗一旦损坏，则不准使用。

Comments: concussion intension of watching window material is not over 4J.If watching window is broken,it can't be used anylong

结构原理 Structure

仪表由隔爆外壳、测量系统、电接点组、调节装置和出线盒等组成。

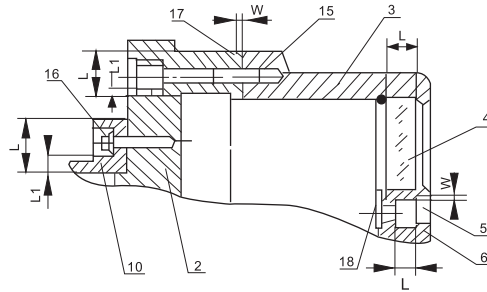
仪表的隔爆外壳具有良好的隔爆性能，因此对在正常工作过程中由于火花或电弧的影响，除了能承受壳体内部的爆炸性气体混合物在一旦引起爆炸时产生的爆炸压力外，并能有效地阻止由此产生的热能向外顺利传播，而只能在壳体内部沿着隔爆接合面的微小缝隙处缓慢地向外扩散。这时，传至壳体外部的瞬间温度已降低到爆炸性气体混合物的燃点温度以下，故不会导致传爆。

仪表的工作原理是基于检测元件(测量系统中的弹簧管)的弹性变形，通过机械传动使之带动电接点组中的触头产生相应的动作(闭合或断开)以使控压系统中的电路得以接通或断开，从而实现自动控制报警和现场指示的目的。

The meter is composed of flame-proof shell, measuring system,electric junction group, adjusted device and outlet box.

The flame-proof shell of the meter has favorable flame-proof performance. It can not only stand the explosion pressure of the explosive intermixture in the shell but also prevent the heat energy form diffusing. The energy can only gradually and slowly diffuse along the cranny of the explosion-proof connection.The instant temperature transmitted to the outside has been reduced to under the ignition point of the explosive gas intermixture. So the explosion will not happen.

The working principle of the meter base on measuring the flexibility of the component, drive the contact in the electric junction group act through the mechanical transmission (open or close) in order to turn-on or break the circuit of the controlling pressure system. So it can realize automatic control alarm and spot indication.

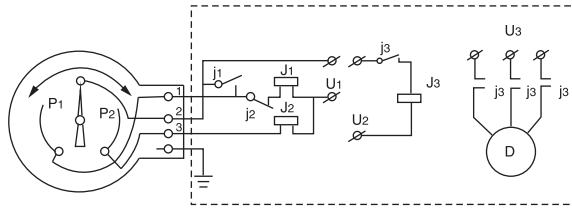


隔爆外壳结构示意图

Explosion-proof case constriction sketch map

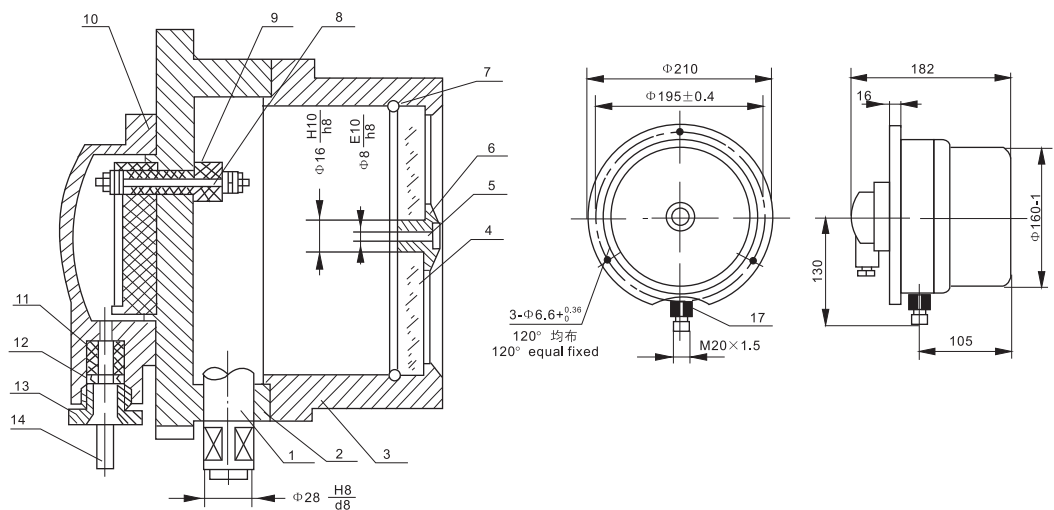
- | | | |
|-------------------|--------------------------|--|
| 1、接头 Connector | 7、弹簧圈 Spring circle | 13、压紧螺栓 Impacted |
| 2、驱壳 Case | 8、导电螺钉 Lead bolt | 14、引入导线(四芯电缆线) Imported lead(four cores cable) |
| 3、盖 Cover | 9、绝缘套管 Insulated bushing | 15、圆柱头内六角螺钉 Columned six angles bolt |
| 4、表玻璃 Glass | 10、出线盒 Outlet box | 16、圆柱头内六角螺钉 Columned six angles bolt |
| 5、调节柱 Adjust pole | 11、密封垫圈 Hermetic gasket | 17、薄垫圈 Thin gasket |
| 6、轴套 Axis | 12、垫圈 Gasket | 18、调节杆 Adjustable staff |

电气电路连接示意图 Electric circuit diagram



外形尺寸 Dimensions

单位(Unit): mm



YXC 特种磁助电接点压力表

YXC series special pressure gauge with magnetic resistance electric contact

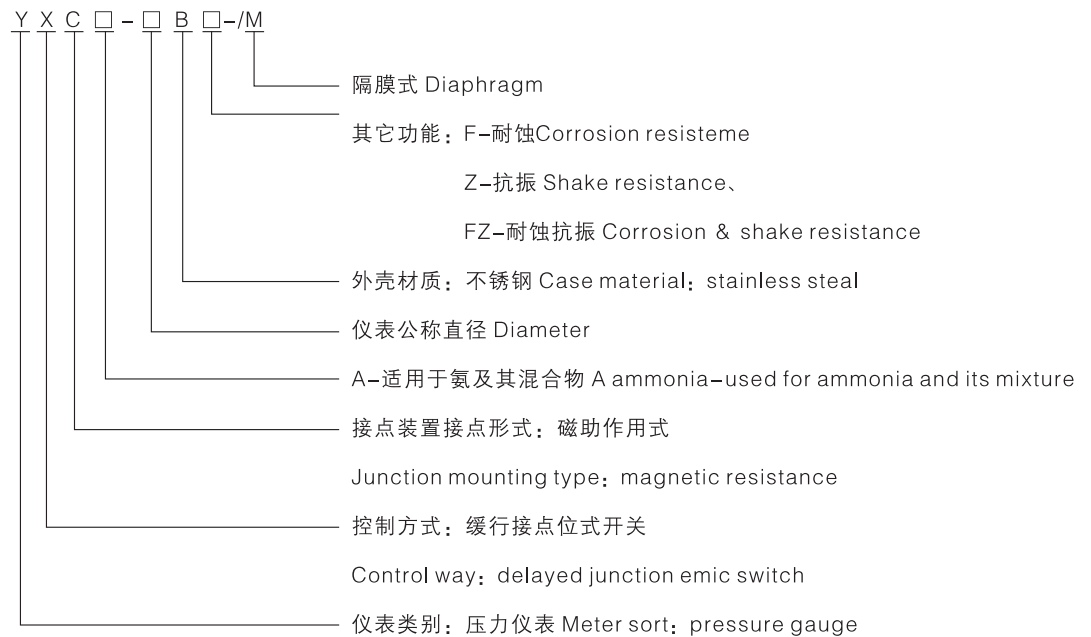
用途说明 Application Description

特种磁助电接点压力表是根据使用工况的不同要求，在普通型磁助电接点压力表的基础上，研制了具有耐震、耐蚀、氨用、耐蚀耐震及带有隔膜隔离器等功能的多种类型的产品。广泛应用于石油、化工、电站、冶金等工业部门，在环境较为恶劣和有耐腐要求的场合中测量无爆炸危险的各种流体介质的压力。仪表经与相应的电气器件配套使用，可达到对被测压力系统实现自动控制和发信(报警)的目的。

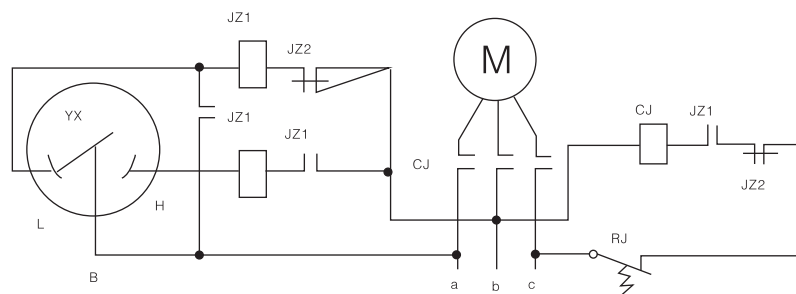
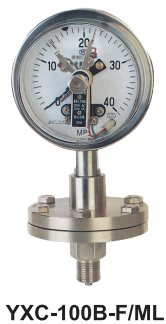
This gauge is designed to have the function of shake resistance, corrosion resistance, ammonia measuring and attached the diaphragm on the base of the normal pressure gauge with magnetic resistance electric contact. And is well suited for the oil industry chemical industry, power station and metallurgical industry, this gauge can measure the pressure of all kinds of service medium which has no explosion when the environment is bad and situation which is corrosive. If this gauge is link with the corresponding equipment, it will realize auto-controlling to the service medium pressure system and send out alarm.



型号描述 Model Description



电气电路连接示意图 Electric circuit diagram



主要技术指标及功能 Main Technical Data and Function

◇ 标度范围、精确度等级及接头螺纹尺寸

Scale range, accuracy class and connection thread

类型 Category	型号 Model	名称 Name	标度范围 Scale range	精确度等级 Accuracy			接头螺纹尺寸 connection dimension
				指示 setting value	设定值 indicate		
					接通 opening	断开 closing	
专用型 Special	YAXC	磁助电接点氨压力表 Ammonia pressure gauge with magnetic resistance electric contact	0~0.16至60及-0.1~0.06至2.4系列 0-0.16 to 60 and -0.1-0.06 to 2.4 series	2.5	2.5	4	M20 × 1.5
抗振型 Shake resistance	YXC-Z	抗振型磁助电接点压力表 Shake resistance pressure gauge with magnetic resistance electric contact	0~0.6至60及-0.1~0.5至2.4系列 0-0.6 to 60 and -0.1-0.5 to 2.4 series	1.6	1.6	5	
耐蚀型 Corrosion resistance	YXC-B-F	耐蚀型磁助电接点压力表 Corrosion resistance pressure gauge with magnetic resistance electric contact	0~0.16至60及-0.1~0.06至2.4系列 0-0.16 to 60 and -0.1-0.06 to 2.4 series	1.6	1.6	4	
耐蚀抗振型 Shake & corrosion resistance	YXC-B-FZ	耐蚀抗振型磁助电接点压力表 Shake & corrosion resistance pressure gauge With magnetic resistance electric contact	0~0.6至60及-0.1~0.5至2.4系列 0-0.6 to 60 and -0.1-0.5 to 2.4 series	1.6	1.6	5	
隔膜式普通型 Diaphragm & common	YXC-/M	隔膜式磁助电接点压力表 Diaphragm pressure gauge with magnetic resistance electric contact	0~0.16至60及- 0.1~0.06至2.4系列 0~0.16 to 60 and - 0.1~0.06 to 2.4 series	1.6	1.6	4	各类隔离器 All kinds of diaphragm
隔膜式耐蚀型 Diaphragm & corrosion resistance	YXC-B-F/M		0~0.6至60及- 0.1~0.5至2.4系列 0~0.6 to 60 and - 0.1~0.5 to 2.4 series	1.6	1.6	5	
隔膜式抗振型 Diaphragm & shake resistance	YXC-Z/M						
隔膜式耐蚀抗振型 Diaphragm & shake and corrosion resistance	YXC-B-FZ/M						

◇ 使用环境条件 Environmental condition

类型 Category	工作温度范围 Temperature Range		相对湿度 Relative Humidity	抗工作振动性能 Performance against the vibration
	介质 Service Medium	周围环境 Ambient Environment		
专用型 Special	-40~70℃		不大于85% Not over 85%	V.H.3级 class
耐蚀型 Corrosion resistance	-40~70℃		不大于90% Not over 90%	V.H.3级 class
抗振型、耐蚀抗振型 Shake resistance、Shake & corrosion resistance	-25~55℃			V.H.4级 class
隔膜式普通型 Diaphragm common	150℃以下 below	-40~70℃		V.H.3级 class
隔膜式耐蚀型 Diaphragm & corrosion resistance	-40~70℃			V.H.4级 class
隔膜式抗振型、耐蚀抗振型 Diaphragm & shake resistance、Shake & corrosion resistance	150℃以下 below	-25~55℃		V.H.4级 class

◇ 温度影响：示值不大于0.4%/10℃，设定点不大于0.6%/10℃(使用温度偏离20±5℃)。

◇ 接点装置电气参数及控制形式与YXC系列磁助电接点压力表相同。

◇ Temperature effect: the showing value is no more than 0.4%/10℃, setting point is more than 0.6%/10℃. Environmental temperature deviates from 20 ± 5℃.

◇ The electric data of the connection equipment and the controlling type is as the same as the YXC pressure gauge with magnetic electric contact.

YXCH系列磁簧式电接点压力表 YXCHK系列抗震磁簧式电接点压力表

**YXCH magnetic spring electric contact pressure gauge
 YXCHK shake resistance magnetic spring electric contact pressure gauge**

产品概述 Product Overview



YXCH-100

YXCH磁簧电接点继承了传统电接点压力表指示直观、调节方便、触点无需外加电源的优点，同时克服了传统电接点触点外露易于氧化而造成接触不良的缺点，将触点改进为真空磁簧器件。具有响应快速灵敏、工作安全可靠、使用寿命长的特点。亦能与PC板或其它电子电路配接。

YXCHK抗震压力表在保留了磁簧电接点压力表各项优点的基础上，通过在仪表内部设置阻尼装置和灌充阻尼液等措施，显著提高了仪表的抗震性能。故能在激烈介质脉动和强烈机械振动的条件下稳定可靠的工作。

YXCH magnetic spring electric contact pressure gauge possesses the advantages of electric contact pressure gauge, including easy reading, convenient adjusting, no need for outside power. Meanwhile, it overcomes the disadvantage that traditional exposed electrical contact can be easily oxidized, which contributes to bad contact. Therefore, the contact point is improved to be vacuum magnetic spring component, which responses quickly, functions safely. Its life length can be quite long. Also it can be connected to PC board and other electric circuits.

Based on various advantages of magnetic spring electric contact pressure gauge, YXCHK shake resistance pressure gauge obviously enjoys better shake resistance through damping device and filling damping liquid inside the gauge. Therefore, it can function sustainably and reliably under fierce media pulsation and intense mechanical shaking.

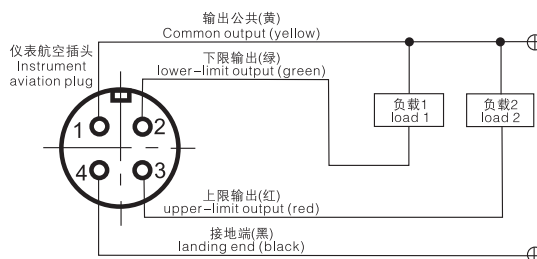
技术参数 Technical parameters

公称直径 Diameter(unit: mm)	φ 100、φ 150
测量范围 Scale range	-0.1~0~-0.1~2.4MPa, 0~0.1~0~60MPa
精度等级 Accuracy class	1.6%
使用环境 Working environment	温度Temp:-10~55℃, , 相对湿度: relative humidity:≤80%
负载能力 Load capacity	250mA, DC50V
接口螺纹 Connection thread	M20×1.5, G1/2, ZG1/2, NPT1/2
控制方式 Controlling ways	全量程可调节上下限、双上限、双下限 Upper and lower limit, double upper limit, double lower limit can be adjusted

接线方式 Ways of connecting

接线盒或航空插座 Junction box or air outlet	输出接线 Output connection
1	输出公共端(黄)Common end of output(yellow)
2	下限输出端(绿) Lower limit output end(green)
3	上限输出端(红)Upper limit output end(red)
4	接地(黑)Landing(black)

参考接线图 Wiring diagram referenced



YXCG系列磁固电接点压力表 YXCGK系列抗震磁固电接点压力表

**YXCG magnetic fixation electric contact pressure gauge
YXCGK shake resistance magnetic fixation electric contact pressure gauge**

产品概述 Product Overview



YXCG-100

YXCG磁固电接点压力表是在磁簧电接点压力表的基础上扩展而来，它继承了磁簧电接点压力表的诸多优点，另外又采用交流固态器件作输出元件，因此具有较强的交流负载能力，可直接带动小型交流接触器，为使用该仪表的用户简化了设置和线路，节约了成本。

YXCGK抗震磁固电接点压力表在保留了磁固电接点压力表各项优点的基础上，通过在仪表内部设置阻尼装置和灌充阻尼液等措施，显著提高了仪表的抗震性能。故能在激烈介质脉动和强烈机械振动的条件下稳定可靠的工作。

YXCG magnetic fixation electric contact pressure gauge is developed from magnetic spring electrical contact pressure. It carries forward many advantages of the latter one. Besides, with alternating solid device as output component, it can well endure alternating load and thus it can directly drive small alternating connecting device in convenience of simplifying setting and circuit and saving cost for the customers who use it.

Based on many advantages of the former one, YXCGK shake resistance magnetic fixation electric contact pressure gauge obviously enjoys better shake resistance through damping device and filling damping liquid inside the gauge. Therefore, it can function sustainably and reliably under fierce media pulsation and intense mechanical shaking.

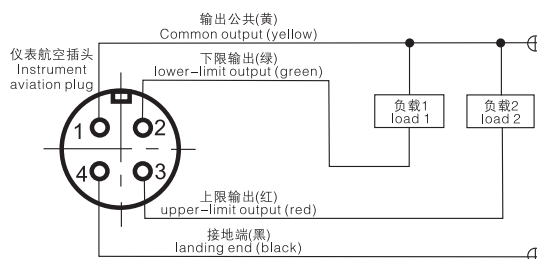
技术参数 Technical parameters

公称直径 Diameter(unit: mm)	φ 100、φ 150
测量范围 Scale range	-0.1~0~-0.1~2.4MPa, 0~0.1~0~60MPa
精度等级 Accuracy class	1.6%
使用环境 Working environment	温度Temp:-10~55℃, 相对湿度relative humidity: ≤80%
电源电压 Voltage of power	AC220V
负载能力 Load capacity	2A AC220V
接口螺纹 Connection thread	M20×1.5, G1/2, ZG1/2, NPT1/2
控制方式 Controlling ways	全量程可调节上下限、双上限、双下限 Upper and lower limit, double upper limit, double lower limit can be adjusted

接线方式 Ways of connecting

接线盒或航空插座 Junction box or air outlet	输出接线 Output connection
1	输出公共端(黄)Common end of output(yellow)
2	下限输出端(绿) Lower limit output end(green)
3	上限输出端(红)Upper limit output end(red)
4	接地(黑)Landing(black)

参考接线图 Wiring diagram referenced



YXCM系列磁敏电接点压力表 YXCMK系列抗震磁敏电接点压力表

YXCM magnetic sensitive electric contact pressure gauge
YXCMK shake resistance magnetic sensitive electric contact pressure gauge

产品概述 Product Overview



YXCM-100

YXCM磁敏电接点压力表采用了磁感应集成电路采集信号，具有无机械触点、无火花抗干扰、响应快速灵敏、寿命长、可靠性高等特点，能和单片机、程序控制器、TTL集成电路、光耦等电子器件方便接口。

YXCMK抗震磁敏电接点压力表在保留了磁敏电接点压力表各项优点的基础上，通过在仪表内部设置阻尼装置和灌充阻尼液等措施，显著提高了仪表的抗震性能。故能在激烈介质脉动和强烈机械振动的条件下稳定可靠的工作。

YXCM magnetic sensitive electric contact pressure gauge adopts magnetic induction integrated circuit to gather information. It possesses advantages such as no mechanical touch, no spark, anti-interference, quick response, long life length, high reliability and so on. It can be connected to electrical device, including SCM, programming controller, TTL integrated circuit, optical coupler and so on.

Based on many advantages of the former one, YXCMK shake resistance magnetic sensitive electric contact pressure gauge obviously enjoys better shake resistance through damping device and filling damping liquid inside the gauge. Therefore, it can function sustainably and reliably under fierce media pulsation and intense mechanical shaking.

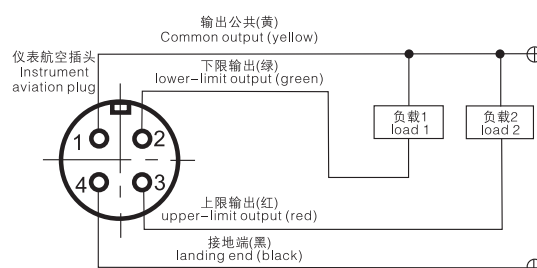
技术参数 Technical parameter

公称直径 Diameter(unit: mm)	φ 100、φ 150
测量范围 Scale range	-0.1~0~-0.1~2.4MPa, 0~0.1~0~60MPa
精度等级 Accuracy class	1.6%
使用环境 Working environment	温度Temp:-10~55℃, 相对湿度relative humidity:≤80%
电源电压 Voltage of power	DC5~24V
负载能力 Load capacity	DC25mA(可扩展至250mA can be improved to 250mA)
接口螺纹 Connection thread	M20×1.5, G1/2, ZG1/2, NPT1/2
控制方式 Controlling ways	全量程可调节上下限、双上限、双下限 Upper and lower limit, double upper limit, double lower limit can be adjusted

接线方式 Ways of connecting

接线盒或航空插座 Junction box or air outlet	输出接线 Output connection
1	输出公共端(黄)Common end of output(yellow)
2	下限输出端(绿) Lower limit output end(green)
3	上限输出端(红)Upper limit output end(red)
4	接地(黑)Landing(black)

参考接线图 Wiring diagram referenced



YXCJ系列磁继电器触点压力表 YXCJK系列抗震磁继电器触点压力表

**YXCJ magnetic relay electric contact pressure gauge
YXCJK shake resistance magnetic relay electric contact pressure gauge**

产品概述 Product Overview



YXCJ-100

YXCJ磁继电器触点压力表是在磁敏和抗震磁继电器触点压力表的基础上扩展而来，它继承了磁敏继电器触点的信号采集无触点的优点，又采用高灵敏继电器作输出元件，因此具有输入输出相隔离、负载交直流均可、负载能力强等特点，克服了磁簧电触点压力表和磁敏电触点压力表只能运用在低电压、小电流、小功率的工况下的缺点，可直接拖带小型接触器。

YXCJK抗震磁继电器触点压力表在保留了磁继电器触点压力表各项优点的基础上，通过在仪表内部设置阻尼装置和灌充阻尼液等措施，显著提高了仪表的抗震性能。故能在激烈介质脉动和强烈机械振动的条件下稳定可靠的工作。

YXCJ/YXCJK为本公司特别推荐和推广应用的优质通用型产品。

YXCJ magnetic relay electric contact pressure gauge is developed from shake resistance magnetic sensitive electric contact pressure gauge. It possesses the latter one's advantage of gathering information without touching. It also adopts highly sensitive electrical relay as output device and therefore the product has the advantages of separate output and input, AC/DC loading, strong loading capacity. And it overcomes the disadvantages of magnetic spring electrical contact pressure gauge that can only work under condition of low voltage, low current and low power. It can directly carry small connecting device.

Based on various advantages of the former one, YXCJK shake resistance magnetic relay electric contact pressure gauge obviously enjoys better shake resistance through damping device and filling damping liquid inside the gauge. Therefore, it can function sustainably and reliably under fierce media pulsation and intense mechanical shaking.

As the product of good quality for common use, YXCJ/YXCJK is highly recommended by our company

技术参数 Technical parameters

公称直径 Diameter(unit: mm)	φ 100、φ 150
测量范围 Scale range	-0.1~0~-0.1~2.4MPa, 0~0.1~0~60MPa
精度等级 Accuracy class	1.6%
使用环境 Working environment	温度 Temp:-10~55℃, 相对湿度 Relative humidity: ≤80%
电源电压 Voltage of power	DC24V(亦可选定5V、6V、9V、12V、15V、18V等)或AC220V(订货时请注明) DC24V(also 5V, 6V, 9V, 12V, 15V, 18V...) or AC220V(please specify in order)
负载能力 Load capacity	5A AC220V; 5A DC30V
接口螺纹 Connection thread	M20 × 1.5, G1/2, ZG1/2, NPT1/2
控制方式 Controlling ways	全量程可调节上下限、双上限、双下限(均可加常闭端口) Upper and lower limit, double upper limit, double lower limit can be adjusted

注：若带有常闭端口的航空插头改用七芯插头。

接线方式 Ways of connecting

接线盒航空插座 Junction box or air outlet	输出接线 Output connection	注：输出接线还可有常闭端口 Plus: output connection also can have normally closed port	
1	输出公共端(黄) Common end of output(yellow)	航空插座 Air outlet	输出接线 Output connection
2	下限输出端(绿) Lower limit output end(green)		
3	上限输出端(红) Upper limit output end(red)	6	下限常闭输出(白) Lower limit normally closed output(white)
4	DC电源负极(黑)或AC220V DC negative terminal of power(black) or AC220V	7	上限常闭输出(紫) Upper limit normally closed output(purple)
5	DC电源正极(棕)或AC220V DC positive terminal of power(brown) or AC220V		

参考接线图 Wiring diagram referenced

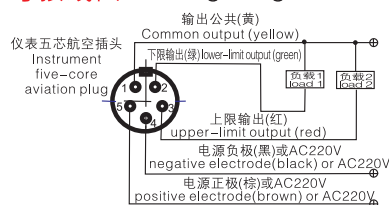


图1 YXCJ型磁继电器触点压力表
PIC1 YXCJ magnetic relay electric contact pressure gauge

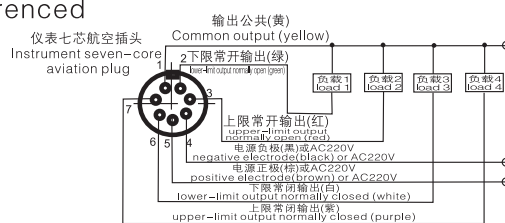


图2 带常闭端口的接线参考图 PIC2 the referenced wiring diagram with the end normally closed
YXCJK型抗震磁继电器触点压力表 Pressure of the YXCJK type magnetic relay contact surface seismic

YXD-100、150系列光电电接点压力表 YXD-100、150-Z系列耐震光电电接点压力表

YXD-100,150 photoelectric electric contact pressure gauge
YXD-100,150-Z shake resistance photoelectric electric contact pressure gauge

产品概述 Product Overview



YXD-100



YXD-100F
(全不锈钢)

仪表适用对铜或铜合金无腐蚀作用的液体、气体等介质的压力测量，除指示功能外，还具有上下限（或双上限、双下限）二位可调信号控制。能适应特殊场所各种工作条件，广泛应用于石油、化工、机械、冶金、核能技术及开关频繁的工艺流程。

仪表采用非接触式电接点，其设定接点上应用了光电传感器，构成无接点信号切换装置。通过控制电路，经高灵敏继电器输出，故仪表灵敏度极高，响应快速，控制精度高，无滞后、跳跃现象。仪表指示清晰、稳定、电信号切换可靠。

YXD-Z型光电耐震电接点压力表具有抗环境振动、介质脉动和冲击载荷特性。在低电压工作时，一般接点式装置浸没于阻尼液中，其接点附着油膜，增大接触电阻，使接点不能有效工作，电流大时烧蚀严重。采用光电无触点信号切换，无电弧，无接点蚀损现象，故使用寿命长，开关特性优良，低于24V工作电压时仍能安全可靠工作。

This gauge is suitable for pressure measurement of liquid, gas which has no corrosive effect on copper alloy. Besides the function of indicating, it has adjustable signal control of upper and lower limit (or double upper, double lower limit). It can be adapted to various special working conditions and widely used in oil industry, chemical industry, mechanical industry, nuclear technology and manufacture process of frequently switching on and off.

The gauge adopts non-touching electrical contact. Photo-sensor is employed on its prescribed contact, which forms non-contact signal shifter. Through controlling circuit to highly sensitive electric relay output, the gauge possesses high sensitivity, quick response, accurate controlling, non-lagging and non-jumping. The gauge indicates clearly and sustainably and electric signals switching is reliable.

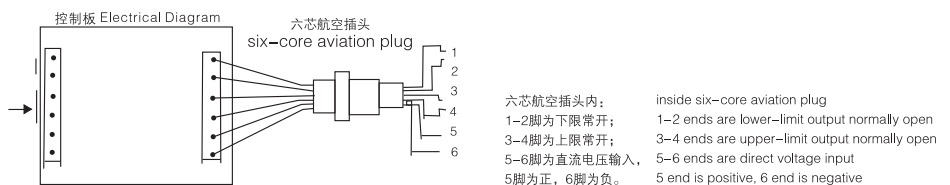
YXD-Z shake resistance photoelectric electric contact pressure gauge can resist environment shaking and pulsation and impulsiveload of media. Under low voltage condition, immersed in damping liquid with oil slick adhering to its contact, common electrical contact device increases contacting electrical resistance, which prevents contact from functioning effectively. Thus it results in bad erosion in high voltage. While YXD-Z adopts photoelectric non-contacting switching, with no arc or contact erosion, so its life length is long and good quality in switching on and off. It can still function safely and reliably under working voltage less than 24V

技术参数 Technical parameters

指示仪表 Indicating pressure gauge	安装形式及外形尺寸 Mounting pattern and dimensions	YXD-100、150同YXC100、150 YXD-100、150-Z同YXCF/YXC FN100/150	
	测量范围 Scale range	-0.1~0~-0.1~2.4MPa, 0~0.1~0~60MPa	
	精度等级 Accuracy class	1.6%	
	使用环境 Working environment	温度 Temp: -10~55℃ 相对湿度 Relative humidity: ≤80%	
	使用压力上限 Upper limit	1/2 ~ 2/3	
控制器 Controller	输出触点 阻性负载 Output contact resistance loading	最大开关电压 Maximum switch voltage	30V
		最大开关电流 Maximum switch current	50mA
		最大控制容量 Maximum control capacity	1.5W
		负载能力 Loading capacity	AC250V
	电气寿命 Life length of the device	50万次	
工作条件 Working condition	输入电压 Output voltage	AC220V, DC12~24V	
	使用环境 Working environment	温度 Temp: -10~40℃ 相对湿度 Relative humidity: ≤75%	
其它 Others	接口螺纹 Connection thread	M20×1.5, G1/2, ZG1/2, NPT1/2	
	控制方式 Ways of control	全量程可调节上下限、双上限、双下限 Upper and lower limit, double upper limit, double lower limit can be adjusted	

参考接线图 Wiring diagram referenced

YXD型光电式电接点电气图
 YXD type photoelectric type electric contact electrical diagram



YGK光电控制系列接点装置

YGK photo electric control series contacts setting

用途说明 Application Description

光电控制接点装置是采用光电偶件的开关原理实现控制功能的，光电信号经执行机构放大后控制内部继电器工作，从而带动主控电路工作。

其结构特点是集成化程度高，结构紧凑，外置型主控线路板安装在接线盒内，内置型安装在表壳罩内，安装方便，操作简单。

其优点是：反应速度快，灵敏度高，工作可靠，负载功率大，接驳不产生火花，各项指标均优于触点式电接点装置，是今后压力表电接点装置更新换代的理想产品。

现研发YGK100、YGK150外置、内置两个系列常开式、常闭式多个品种。

Photo electric control contacts setting is adopt the switch principle of the photo electric sensitive parts to realize the control function. The photo electric signal magxified by the executive structure to control the inside relay working, the make the main control circuit working.

Its structure has the character of high integration degree, impact seructure. The outer-fixed main control circuit is mounted in terminal box. The inside fixed is mounted in the case cover, which make mounting conveniently and easy operation.

The advantages: fast responding speed, high sensitivity big loading power, connecting will not bring out spark, and every index is much better than the touching type electric contacts setting, in the future, it will be ideal product for pressure gange electric contacts setting derelopment.

At present, we have developed out ygk100, ygk150, outer-set and inner set two series, and various type of N-O and N-C.

主要技术指标 Main Technical Index

- 1、功率：50VA($I \leq 2A$)。
- 2、电压：
 - a. 工作电源YGK-II(基本型)交流220V 50Hz，随客户需要供110V, 36V, 24V交流，36V, 24V, 6V直流。
 - b. 控制电压 $\leq 380^\circ$ V交流、直流。
- 3、工作环境：温度 $-20^\circ\text{C} \sim 60^\circ\text{C}$ ，湿度 $\leq 80\%$ 。
- 1、Power: 50VA($I \leq 2A$).
- 2、Voltage:
 - a. Working power YGK-II (fundamental type) AC 220V 50Hz, we can also supply 110V, 36V, 24V(AC), 36V, 24V, 6V(DC).
 - b. Control voltage $\leq 380V$, AC, DC.
- 3、Working enviroment: temperature $-20^\circ\text{C} \sim 60^\circ\text{C}$, humidity $\leq 80\%$.
- 4、When order the product, please remark the working power, and matched instrument specification.

外置型接线图 Outer-Set wire Connecting Drawing

- 1、接线端子排(信号输出)
 - 1号C1、上限信号输出，红色线(常开)
 - 2号A、中线接线，黄色线
 - 3号C2、下限信号输出，绿色线对强度比(常开)
 - ||、接地线白色或黑色
 - B1、B2为常闭输出。
- 2、电源接线端子
 - U1、U2为装置工作电源，基本型(YGK-II)为220V交流，没火、零线之分。



3、插线接线端子排(光电信号线)

下限：a橙色线 b红色线 c棕色线

上限：D灰色线 E白色线 F黑色线

1、Terminal line (signal output).

No.1 C1、uplimit signal output,red wire(N-O).

No.2 A、neutral wire,yellow.

No.3 C2、down limit output,green wire(N-O).

—|I|, grounded line,white or black.

B1、B2 are N-C output.

2、Power sources terminal line.

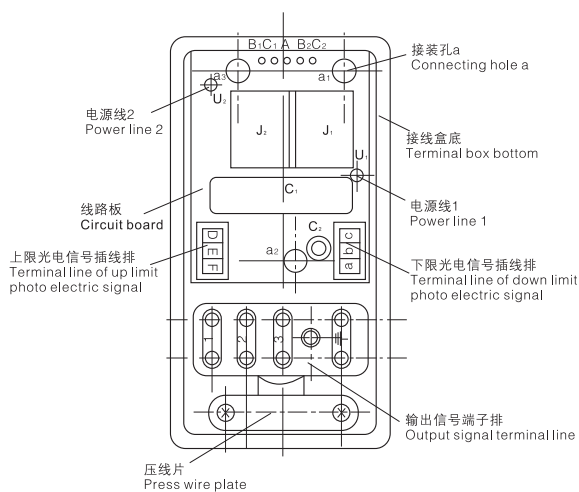
U1、U2 are working power for setting, fundamental type (YGK- II) is A.C.220V,

No live wire and static wire difference.

3、Plug-in terminal line (Photo electric signal line) .

down limit: a-orange wire, b-red wire, c-brown wire.

D-grey wire, E-white wire, F-black wire.



警告：该装置在调校过程中使用36V以上非安全电源时，须使用触漏电保护装置，以保证安全。

Warning: in the adjusting process, this setting must use with the leakage protect or to ensure safety when use the unsafe power more than 36V.

YXCF/YXCFN 不充液/充液系列特殊电接点系列压力表

Special electrical contact series pressure gauge specification YXCF/YXCFN, no oil-filled/oil-fill

产品概述 Product Overview

电接点压力表广泛用于石油、化工、冶金、电站等工业企业及机电设备配套中，测量各种气体与液体等介质的压力。仪表经与相应的电气器件配套使用，可达到对被测压力系统实现自动控制和发信报警的目的。

Electrical contact pressure gauge is widely used in industrial enterprises, such as oil industry, chemical industry, metallurgy and power station and electromechanical equipments, measuring various kinds of media, i.e., gas, liquid and so on. With corresponding electrical devices, the pressure gauge can automatically control the pressure of measured media system and launch warnings.



YXCF-100Z

仪表原理 Structure

被测介质通过仪表接头进入测压系统，作用于测压元件弹簧管，其管端产生相应的位移，通过齿轮传动机构带动表针及动触头与设定指针上的定触头(上限或下限)相接触，使控制电路接通或断开，以达到自动控制和或发信报警的目的。

Measured media runs into measuring system through connect and acts on pressure measuring component, the bourdon tube, whose end thus twists. Then gear turns and drives indicator and movable contact touches the fixed contact of prescribed contacts(upper and lower limit). The gauge thus can automatically control and launch warnings when the control circuit is switched on or off.



技术参数 Technical Parameters

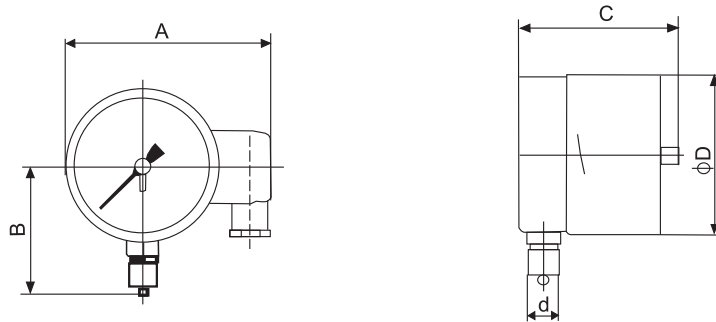
- ◇ 执行标准：JB/T9273-1999
- ◇ 仪表直径：φ63/100/150/160(mm)
- ◇ 精度等级：φ63 2.5%；φ100(≤0.1MPa) 2.5%；
φ100/150/160 1.6%，设定精度4%
- ◇ 测量范围：-0.1-0~-0.1-2.4MPa，0-0.1~0-100MPa
- ◇ 防护等级：标准不充油型IP54；充油型IP65
- ◇ 工作环境温度：-20~70℃
- ◇ 温度影响：使用温度偏离20±5℃时其设定点误差变化不大于0.6%/10℃
- ◇ 最高工作电压：AC380V或AC220V
- ◇ 最大电流：1A
- ◇ 触头功率：30VA
- ◇ 接点材质：≥110V银镍合金，≤36V黄金
- ◇ 接点数量：1个或2个可选
- ◇ 仪表外壳：不锈钢
- ◇ 仪表接头：SUS304(可选SUS316)
- ◇ 波登管：SUS316
- ◇ 仪表机芯：SUS304
- ◇ 仪表玻璃：普通玻璃、防爆双层安全玻璃可选
- ◇ 表针：黑色铝
- ◇ 表盘：铝白底黑刻度字 MPa(可选bar/psi.....)
- ◇ 耐震型充液：专业填充油
- ◇ 连接方式：M20×1.5或约定的特殊要求

- ◇ Executive standard: JB/T9273-1999
- ◇ Diameter: 63/100/150/160(mm)
- ◇ Accuracy class: $\phi 63$ 2.5%; $\phi 100(\leq 0.1\text{MPa})$ 2.5%;
 $\phi 100/150/160$ 1.6%, prescribed accuracy 4%
- ◇ Scale range: -0.1-0~-0.1-2.4MPa, 0-0.1~0-100MP
- ◇ Ingress protection: standard on liquid-filled type IP54; liquid-filled type Ip65
- ◇ Permissible temperature: -20~70°C
- ◇ Temperature effect: When temperature deviates from $20 \pm 5^\circ\text{C}$, the prescribed point changes less than 0.6%/10°C
- ◇ Maximum working voltage: AC380V or AC220V
- ◇ Maximum current: 1A
- ◇ Contact power: 30VA
- ◇ Connecting point material: $\geq 110\text{V}$ silver-nickel, $\leq 36\text{V}$ gold
- ◇ Number of connecting point: either 1 or 2
- ◇ Case: stainless steel
- ◇ Gauge connector: SUS304(or SUS316)
- ◇ Bourdon tube: SUS316
- ◇ Movement: SUS304
- ◇ Gauge glass: either common glass or double-layer explosion-proof safety glass
- ◇ Pointer: black aluminum
- ◇ Dial: white aluminum, black lettering MPa(or bar/psi...)
- ◇ Liquid filling of shake resistance type: specialized filling oil
- ◇ Connect type: M20*1.5 or special connection

工作压力及使用范围 Working pressure and scope of application

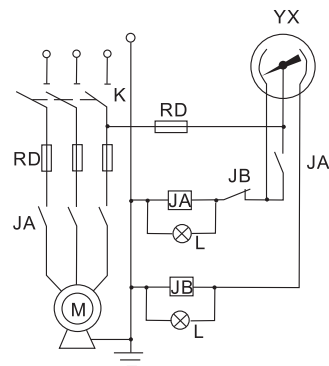
- | | |
|---|---|
| ◇ 表圆 $\phi 63\text{mm}$:
静压: 3/4X满量程
动压: 2/3X满量程 | ◇ 表圆 $\phi 100/150/160\text{mm}$:
静压: 3/4X满量程
动压: 2/3X满量程
瞬时: 1.3X满量程 |
| ◇ Diameter: 63mm
Steady: 3/4* full scale value
Fluctuating: 2/3* full scale value | ◇ Diameter: 100/150/160mm
Steady: 3/4* full scale value
Fluctuating: 2/3* full scale value
Short time: 1.3* full scale value |

外形尺寸 Dimension (mm)



尺寸 Size		A	B	C	D	d
表径 Diameter	公称直径Diameter ϕ 63	25	59	78	64	G1/4"
不带安装环 Without mounting circle	公称直径Diameter ϕ 100	136	90	95	101	M20 \times 1.5 或其它规格 or other specifications
	公称直径Diameter ϕ 150	190	120	95	149	
	公称直径Diameter ϕ 160	193	125	98	161	

参考接线图 Wiring diagram referenced



YX: 电接点压力表

YX: Electrical contact pressure gauge

M: 发电机

M: Dynamo

JA: 接触器及其触点

JA: Connect device and its connecting point

JB: 中间继电器及其触点

JB: Middle electric relay

K: 组合开关

K: Combination switch

L: 指示灯

L: Indicator lamps

RD: 熔断器

RD: Fuse

接线方式 Mode of connecting wire

