



Senson Things and industrial a

Shanghai Ziasiot Technology Co., Ltd.

6th floor,18th Building, No.615, Lianying Road, Songjiang District, Shanghai, China. 201611 Tel:021-37635502 021-64930577 400-821-0137

Fax: +86-21-37635507 Email: info@ziasiot.com Web: http://www.ziasiot.com

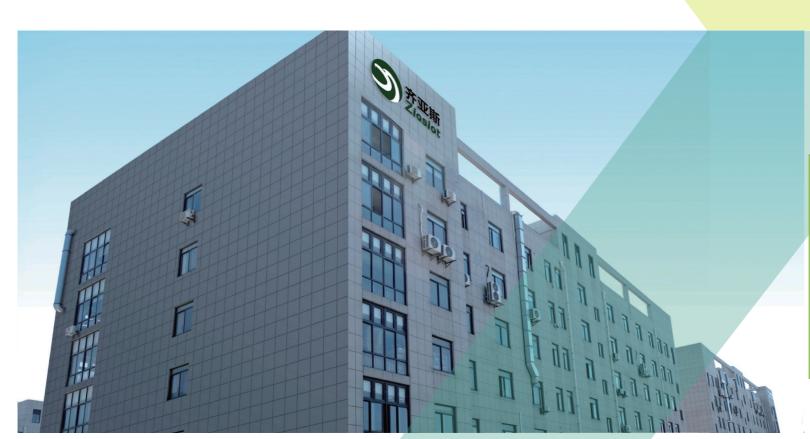
Melt Pressure and Temperature Measurement for Extrusion and Polymer Processing Industries



profile Company

As a global technology brand, Ziasiot can provide a variety of sensor products for different industries, and provide professional, reliable and high-performance IOT and digital solutions for the ever-changing intelligent environment. We strive to innovate, advocate environmental protection, adhere to the concept of high quality and integrity, and strive to develop into a global technology manufacturing group with sensor, Internet of Things and urban digital system solutions.

Sensors are vital for urban digitization, Internet of Things, intelligent manufacturing, sensors are vital, and Ziasiot can provide comprehensive application solutions for different industry sectors, including fire, transportation, automotive, industrial, medical, environmental sanitation, household appliances, energy, aviation, aerospace, military, industrial and commercial transportation. Our team members have many years of industry experience and professional knowledge, established a customer-oriented organizational structure, constantly innovating technology, and obtained a number of national patents, which makes us in the field of sensors, Internet of things and urban digital system solutions have been an innovator role. The Ziasiot Technical team has developed an environmentally friendly high temperature melt pressure sensor that redefines the system solution for high temperature melt pressure measurement.



Enterprise >> certificate

《Pressure Transmitter》,《Pressure Transducer》etc Drafting company of National Metrology Verification Regulations and National Metrology Technical Specifications Type Evaluation Outline

Not only the role of an innovator, we are more concerned about every production process......











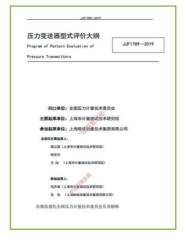


































Product Line __

Redefine/

/ Pressure and Temperature Measurement and Control

Safety Relay Melt Pressure Transmitter / Transducer	01
Alloy Filling Melt Pressure Transmitter / Transducer	02
Remotely Autozero Melt Pressure Transmitter / Transducer	03
Remotely Autozero & Magnetic zero Melt Pressure Transmitter / Transducer -	04
Explosion Proof Melt Pressure Transmitter	05
Digital Display Melt Pressure Transmitter	06
Capillary-Exposed Melt Pressure Transmitter	07
Standard Melt Pressure Transmitter / Transducer	80
Economical Melt Pressure Transmitter / Transducer	09
Mechanical Melt Pressure Gauge	10
Digital Melt Pressure Gauge	11
Melt Temperature Transmitter / Transducer	12
Bust Plugs / Rupture Disk	13
Intelligent Digital Process Indicator	14
Intelligent PID Controller	15

Safety Relay Series PL'c'

>> Melt Pressure Transmitter / Transducer /

—PT190/PT192/PT193



PT190 Rigid Stem

PT192 Rigid+Flexible St

PT193 with Thermocoupl

Description

This series adapts TI series high-performance digital chips, the circuit design is based on SIL2, PL'c' safety performance standards. The range limit is controlled through the relay output to ensure the safety of the extrusion equipment and production line, and effectively reduce the impact of damage and unpredictable personal safety accidents on the equipment due to pressure overload.

Product Feature

- SIL2 and PL'c' rating Auto zero via shorting 2pins together
- Digital-analog integrated circuit design, super anti-interference

Technical Data

PT190/PT192/PT193			
Pressure Range	0~35bar;0~2000b	ar	0~100bar;0~2000bar
Accuracy	±0.5%F	S. ±0.25	5% F.S
Over load Pressure		1.5FSO	
Bridge Resistance	350ΩWh	neatstone	bridge
Power	15 ~ 36Vdc		6 ~ 12Vdc
Output Signal	4 ~ 20mA		3.33mV/V
Relay Contact Performance	5 ~ 220Va	dc, 1A, 0).2%FSO
Relay Output	Open Outpu	t percent	10%,20%100%
Load Resistance (Ω)	< 500Ω		
Calibration	80%FSO		
Process Connection	M14×1.5、1/2-20UNF、M18×1.5		
Insulation Resistance (50Vdc)	1000ΜΩ		
Diaphragm Material	17-4PH、inconel718、C276		
Diaphragm max temp	400°C		
Film Material	TiAIN		
E-connection	7-pin connector(Standard), 8-pin connector		
Electrical Environment temp	-20°C ~ 85°C		
Thermocouple	J Type,E Type,K Type,pt100		
Protection Degree	IP65		
Installation torque	< 30Nm		
Filling Material	Alloy-fillin	g or Mercu	ury filling



Alloy Filling Series

>> Melt Pressure Transmitter / Transducer /

—PT170/PT172/PT173



PT170 Rigid Stem

PT172 Rigid+Flexible Stem

PT173 with Thermocouple

Description

This series adopts patented environmentally friendly alloy filling medium and upgraded version of AFT vacuum filling technology, which are safe and non-toxic, high temperature resistance, and stable performance. It is suitable for basic process control of clean materials such as sheet, composite material, film, pipe, food packaging, medical packaging, etc.

Product Feature

- Max temp 400°C
- SIL2,CE and RoHS
- AFT technology environment-friendly alloy medium filling
- One-key to reset zero, easy on-site debugging; auto-zero optional

Technical Data

PT170/PT172/PT173			
Pressure Range	0 ~ 35bar;0 ~ 2000bar		
Accuracy		±0.5%F.S、±0.25	%F.S
Over load Pressure		1.5FSO	
Bridge Resistance		350ΩWheatstone b	ridge
Output Signal	4 ~ 20mA	0 ~ 10Vdc、 0 ~ 5Vd	dc 3.33mV/V
Power	9 ~ 36Vdc (Standard24Vdc)	18 ~ 36Vdc	6 ~ 12Vdc (Standard10Vdc)
Load Resistance (Ω)	< (U-9) /0.02	> 10K	
Calibration	80%FSO		
Process Connection	M14×1.5、1/2-20UNF、M18×1.5		
Insulation Resistance(50Vdc)	1000ΜΩ		
Diaphragm Material	17-4PH、inconel718、C276		
Diaphragm max temp	400°C		
Film Material	TiAIN		
E-connection	6-pin connector (Standard)、8-pin connector(Standard)		
Electrical Environment temp	-25℃ ~ 85℃		
Thermocouple	J Type,E Type,K Type,pt100		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material	Alloy-filling		

Remotely Autozero Series

>> Melt Pressure Transmitter / Transducer /

—PTED/PTER/PTES



PTED Rigid Stem

PTER Rigid+Flexible Stem

PTES with Thermocouple

Description

PTED/PTER/PTES series adopt imported stainless steel materials, core elements and digital mode circuit design. Realizing sensor linear compensation through digital program. Remote autozero via shorting two pins together. Comply with SIL2, CE safety performance standards. High precision, high stability, low temperature drift and other performance characteristics.

Product Feature

- Several amplified signal output are optional
- Remotely autozero
- Good stability and anti-interference ability
- Internal 80%

Technical Data

PTED/PTER/PTES			
Pressure Range	0~35bar;0~2000bar 0~100bar;0~2000bar		
Accuracy	±0.5%F.S、±0.25°	%F.S	
Over load Pressure	1.5FSO		
Bridge Resistance	350ΩWheatstone b	ridge	
Power	12~36Vdc (Standard24Vdc)	10Vdc	
Output Signal	4 ~ 20mA 0 ~ 10Vdc 0 ~ 5 Vdc	3.33mV/V	
Load Resistance (Ω)	< (U-12) /0.02 > 10K		
Calibration	80%FSO		
Process Connection	M14×1.5、1/2-20UNF、M18×1.5		
Insulation Resistance (50Vdc)	1000ΜΩ		
Diaphragm Material	17-4PH、inconel718、C276		
Diaphragm max temp	400℃		
Film Material	TiAIN		
E-connection	6-pin connector(Standard),8-pin connector		
Electrical Environment temp	-20°C ~ 85°C		
Thermocouple	J Type,E Type,K Type,pt100		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material	Mercury filling		



Remotely Autozero & **locally Magnetic Zero Series**

> Melt Pressure Transmitter / Transducer /

—PTOG1/PTOG2/PTOG3



PTOG1 Rigid Stem

Description

PTOG series adopt high-performance core components, digital-analog integrated circuit design, linear compensation can be achieved through theprogram, and high measurement accuracy can be obtained. Comply with SIL2 safety performance standards. This series can reset to zero in two ways:remotely via shorting two pins together and locally via magnetic contacts.

Product Feature

- Remotely autozero and locally magnetic zero
- 80% Internal calibration
- Mercury free filling and relay output is optional

Technical Data

PTOG1/PTOG2/PTOG3			
Pressure	0 ~ 35bar; 0 ~ 2000bar		
Accuracy	±0.5%F.S、±0.25%F.S		
Overload pressure	150% FSO		
Bridge resistance	350ΩWheatstone bridge		
Ouptut Signal	4~20mA 0~10Vdc, 0~5Vdc 3.33mV/V		
Power	12 ~ 36Vdc (Standard24Vdc) 6 ~ 12Vdc (Standard10Vdc)		
Load Resistance (Ω)	< (U-12) /0.02 > 10K		
Calibration	80%FSO		
Process Connection	M14×1.5、1/2-20UNF、M18×1.5		
Insulation Resistance	1000MΩ @50Vdc		
Diaphragm Material	17-4PH、inconel718、C276		
Diaphragm max temp	400°C		
Film Material	TiAIN		
E-connection	6-pin connector(Standard)、8-pin connector		
Electrical Environment	-20°C ~ 85°C		
temp	-20 C 03 C		
Thermocouple	J Type,E Type,K Type,pt100		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material	Alloy-filling or Mercury filling		

Explosion Proof Series

>>Melt Pressure Transmitter / Transducer/

—PT110/PT120/PT130FB



PT110FB Rigid Stem

PT120FB Rigid+Flexible Stem

Description

This series is an intelligent 4...20 mA Hart protocol melt pressure transmitter design for explosive hazardous sites. It uses all stainless steel welding structure, thread and flange installation mode are optional. High performance core components can helpful in its high measurement accuracy. It is widely used in melt pressure process measurement control of high precision polymer extrusion equipment, production line and laboratory equipment and laboratory instruments

Product Feature

- Fully welded housing
- 4-20mA, 4-20mA+Hart output
- Several flange connection optional Ideal for hazardous locations

Technical Data

PT110/PT120/PT130FB		
Pressure Range	0 ~ 35bar;0 ~ 2000bar	
Accuracy	±0.5%F.S、±0.25%F.S	
Over load Pressure	1.5FSO	
Bridge Resistance	350ΩWheatstone bridge	
Power	12 ~ 30Vdc (Standard24Vdc)	
Output Signal	4-20mA, 4 ~ 20mA+hart	
Load Resistance (Ω)	< (U-12) /0.02	
Explosion-proof grade	Exia II CT4、Exia II CT6	
Process Connection	1/2-20UNF、Flange connection	
Insulation Resistance (50Vdc)	1000ΜΩ	
Diaphragm Material	17-4PH、inconel718、C276	
Diaphragm max temp	400°C	
Film Material	TiAIN	
E-connection	1/2NPT leading wire、6-pin connector(Standard)	
Electrical Environment temp	-20℃ ~ 85℃	
Thermocouple	J Type,E Type,K Type,pt100	
Protection degree	IP65	
Installation torque	< 30Nm	
Filling Material	Mercury filling	



Digital Display Series

Melt Pressure Transducer

—PT115/PT125/PT135



PT115 Rigid Stem

PT125 Rigid+Flexible Sten

PT135 with Thermocouple

Description

This series is an intelligent 4...20 mA Hart protocol melt pressure transmitter possess the special film and high temperature wear-resistant coating make it work normally at 400 °C high temperature, using the standard threaded connection method to install, full 4-digit display, relay output is optional. High stability and long service life. The intrinsically safe melt pressure transmitter is designed for hazardous explosion-proof areas and remote control, and the wireless module can be customized.

Product Feature

- Special lamination film coating IP65 protection degree
- 4-digit LED display
- Exiall CT4 intrinsically safe explosion-proof certification

Technical Data

PT115/PT125/PT135			
Pressure Range	0 ~ 35bar;0 ~ 2000bar		
Accuracy	±0.5%F.S、±0.25%F.S		
Over load Pressure	1.5FSO		
Bridge Resistance	350ΩWheatstone bridge		
Power	12 ~ 30Vdc (Standard24Vdc)		
Output Signal	4 ~ 20mA+hart		
Load Resistance (Ω)	< (U-12) /0.02		
Explosion-proof Grade	Exia II CT4、Exia II CT6		
Process Connection	1/2-20UNF、Flange connection		
Insulation Resistance (50Vdc)	1000ΜΩ		
Diaphragm Material	17-4PH、inconel718、C276		
Diaphragm max temp	400°C		
Film Material	TiAIN		
E-connection	M20*1.5 1/2NPT Waterproof connector		
Electrical Environment temp	-20°C ~ 85°C		
Thermocouple	J Type,E Type,K Type,pt100		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material	Mercury filling		

Capillary-Exposed Series

>> Melt Pressure Transmitter / Transducer

—PT180



Description

PT180 series adopts special cavity type exposed structure design, with high precision and high response speed. Used for special positions of small space such as chemical fiber equipment, rubber and plastic machinery and mold cavity.

Product Feature

- Precision is better than ±0.5%FS
- 80% internal calibration

• Exposed structure

Good stability and repeatability

Technical Data

	PT180		
Pressure Range	0~35bar;0~2000bar 0~100bar;0~2000bar		
Accuracy	±0.5%F.S、±0).25%F.S	
Over load Pressure	1.5FSC)	
Bridge Resistance	350ΩWheatsto	ne bridge	
Power	9-36Vdc 18-36Vdc	6-12Vdc(10V is standard)	
Output Signal	4 ~ 20mA 0 ~ 10Vdc 0 ~ 5	Vdc 3.33mV/V	
Load Resistance (Ω)	< (U-9) /0.02 > 10K		
Calibration	80%FSO		
Process Connection	1/2-20UNF		
Insulation Resistance (50Vdc)	1000ΜΩ		
Diaphragm Material	17-4PH、inconel718、C276		
Diaphragm max temp	400°C		
Film Material	TiAIN		
E-connection	6-pin connector(Standard),8-pin connector		
Electrical Environment temp	-20°C ~ 85°C		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material	Mercury filling		

 $_{
m 07}$



Standard Series

>> Melt Pressure Transmitter / Transducer

—PT112/PT123/PT133(B)



PT112 Rigid Stem

PT123 Rigid+Flexible Sten

PT133 with Thermocouple

Description

This series is a kind of accurate measuring equipment, which adopts high performance core element, digital-analog integrated circuit design, realizes linear compensation through program, and can obtain 0.5% FSO measurement accuracy. Used for pipe extrusion, sheet extrusion, recycled plastics, recycled plastics and other extrusion processes with simple control

Product Feature

- Accuracy 0.5%FS
- Stainless steel sealing
- 80% internal calibration
- Good stability and repeatability

Technical Data

PT112/PT123/PT133(B)			
Pressure Range	0~100bar;0~2000bar 0-		0~35bar;0~2000bar
Accuracy		±0.5%F.S	
Over load Pressure	1.5	FSO	1.5FSO
Bridge Resistance	3	50ΩWheatstone brid	ge
Power	9 ~ 36Vdc (Standard24Vdc)	18 ~ 36Vdc	6-12Vdc (10Vdc Standard)
Output Signal	4 ~ 20mA	0 ~ 10Vdc,0 ~ 5Vdc	3.33mV/V
Load Resistance (Ω)		< (U-9) /0.02	> 10K
Calibration		80%FSO	
Process Connection	M14×1.5、1/2-20UNF、M18×1.5		
Insulation Resistance (50Vdc)	1000ΜΩ		
Diaphragm Material	17-4PH、inconel718、C276		
Diaphragm max temp	300℃		
Film Material	TiAIN		
E-connection	6-pin connector(Standard), 8-pin connector		
Electrical Environment temp	-20°C ~ 85°C		
Thermocouple	J Type,E Type,K Type,pt100		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material	Mercury filling		

Economical Series

>> Melt Pressure Transmitter / Transducer /

—PT111/124/131(B)



PT111(B) Rigid Stem

PT124(B) Rigid+Flexible Stem

PT131(B) with Thermocoupl

Description

This series with good stability are easy to install, and are ideal products for on-site display of melt pressure measurement in the extrusion process of pipe extrusion, sheet extrusion, recycled plastics, etc.

Product Feature

- 5-pin electrical connection
- Cost-effective

• Accuracy +/-0.1% FS

• Good stability and repeatability

Technical Data

PT111/124/131(B)			
Pressure Range	0 ~ 35bar;0 ~ 2000bar		0 ~ 100bar;0 ~ 2000bar
Accuracy		±1.0%F.S	
Over load Pressure		1.5FSO	
Bridge Resistance		350Ω Wheatstone bri	dge
Output Signal	4 ~ 20mA	0 ~ 10Vdc、 0 ~ 5Vdc	2mV/V
Power	9 ~ 36Vdc (Standard24Vdc)	18 ~ 36Vdc	6 ~ 12Vdc (Standard10Vdc)
Load Resistance (Ω)	< (U-9) /0.02	>10K	
Calibration	80%FSO		
Process Connection	M14×1.5、1/2-20UNF、M22×1.5		
Insulation Resistance	1000MΩ (50VDC)		
Diaphragm Material	17-4PH		
Diaphragm max temp	300℃		
Film Material	TiAIN		
E-connection	5-pin connector(Standard)		
Electrical Environment temp	-20°C ~ 85°C		
Thermocouple	J Type,E Type,K Type,pt100		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material		Mercury filling	



Mechanical Series

Melt pressure gauge

—PG112/PG123/PG133



PG112 Rigid Stem

PG123 Rigid+Flexible Stem

PG133 with Thermocouple

Description

This series is a professional melt pressure measurement product used in the injection molding industry and chemical fiber high temperature environment. The special coated diaphragm and high temperature wear-resistant material coating enable it to work normally at 400 °C. It is installed with a standard threaded connection. Optional analog signal output, with high stability and long service life. It is widely used in the on-site measurement and display of melt pressure in the injection molding, chemical fiber, and rubber industries.

Product Feature

- On-site mechanical pointer display Accuracy +/-1.6% FS
- Special diaphragm coating
- IP65 protective level

Technical Data

PG112/PG123/PG133			
Accuracy	±1.6%F.S		
Pressure Range	0-100bar,0-1000bar		
Output Signal	NA	4-20mA	0-10V
Power	NA	9-36VDC	18-36VDC
Load Resistance	NA (U-9)/0.02Ω > 10k		
Bridge Resistance	ΝΑ 350Ω 350Ω		350Ω
Diaphragm Material	17-4PH		
Diaphragm max temp	MAX 400°C		
Electrical Environment temp	-20 ~ 85℃		
Process Connection	1/2-20UNF、M22×1.5、M14×1.5		
E-connection	NA 5-pin		
Thermocouple	JT	ype、E Type、K Type、P	T100

Digital Series

 $\rangle\rangle$

Melt pressure gauge

—PG112X/PG123X/PG133X



PG112X Rigid Stem

PG123X Rigid+Flexible Sten

PG133X with Thermocoup

Description

This series is professionally used to measure pressure in high-temperature environments, with on-site LED display, no indication error, two-way relay control, and can work normally at a high temperature of 400°C. They are installed with standard threaded connections and have high stability and long service life. It is widely used in precision measurement of melt pressure in injection molding, chemical fiber and rubber industries.

Product Feature

- Φ100mm standard gauge installation
- 4-digit LED display, no indication error
- 2-way control point relay output 220V 3A
- Accuracy grade: 0.5%FS

Technical Data

PG112X/PG123X/PG133X			
Accuracy	±0.5%F.S		
Pressure	0-35bar,	0-2000bar	
Output Signal	4-20mA(relay output optional) 4-20mA (relay output optional)		
Power	220VAC	15-36VDC	
Load Resistance	NA	(U-15)/0.02Ω	
Bridge Resistance	350Ω	350Ω	
Diaphragm Material	17-4PH		
Diaphragm max temp	Max400°C		
Electrical Environment temp	-20	~ 85°C	
Process Connection	1/2-20UNF、M22×1.5、M14×1.5		
E-connection	5-pin		
Thermocouple	J Type、E Type	K Type、PT100	



MTT(B) Series

Melt Temperature Transducer



E type K Type J Type Pt100

Description

MTT Series melt temperature sensor is suitable for temperature measurement of melt, fluid, gas, etc. The probe forms are various. While reducing the medium flow resistance, the sensitive part of the probe is completely placed in the measurement medium, with higher measurement accuracy, shorter response time, better reliability and long life etc

Product Feature

- Temperature Measurement Ranging from 0-400°C
- 4-20mA output is optional
- Different thermocouple and RTD are optional
- Different Shapes of tip is available

Technical Data

MTT(B)	
Accuracy	Class A
Temperature	0-700°C
Material	SUS304
Withstand voltage rating	Max70MPa
Process connection	1/2-20UNF、M18×1.5、M14×1.5
Probe form	Flat、Conical type、Cylindrical type、Blade shape
Temp measurement terminal form	Insulation
E-connection	Thermocouple Leading wire 7-pin aviation connector

BP224 Series

 \gg

Bust Plugs (Rupture Disk)

—BP224



Description

BP224 series burst plugs are made by 17-4PH in use of pressure releasing for emergency circumstances. The diaphragm will burst while pressure overloaded to protect the machine and operator from explosion damage

Product Feature

- Burst pressure range: 0...2500psi to 0...15000psi
- Low installation and maintenance costs
- Reliable protection of personnel and machinery
- Robust sensing element
- Designed for extrusion applications

Technical Data

BP224		
Pressure range	0…2500psi to 0…15000psi	
Temperature range	0…400°C	
Material	304 stainless steel	
Material	SUS304	
Process connection	1/2-20UNF、M18×1.5、M14×1.5 etc	



ZP Series

Digital Process Indicator



Intelligent PID Series

Intelligent PID Controller

-Z90D/80D/Z60D



Description

This series uses single-chip microcomputer as the control core, adopts SMT patch technology, switching power supply, control parameter self-tuning algorithm, sensor nonlinear high-precision change, electromagnetic compatibility design, high measurement and control accuracy, and strong anti-interference. Pressure single display, temperature and pressure dual display are optional, multiple input signals, output signals, multiple appearance structures, small size, light weight, low power consumption etc.lt is widely used in pressure and temperature display and automatic control in hydraulic, petroleum, plastic, rubber, printing and dyeing, textile and other industries. It can be used with melt pressure sensor.

Dimension

- ZP90/ZP91 96*96
- ZP80/ZP81 48*96
- ZP60/ZP61 96*48

Technical Data

ZP Series	
Display Range	0.100~999.9 (The decimal point can be shifted)
Accuracy	+/-0.2%FS
Power	85~265Vdc; 24Vdc
Output Signal	4-20mA;0-20mA;0-5V;0-10V;RS485
Input Signal	2mV/V;3.33mV/V;4-20mA;0-10V
Temp input	E,K,J,PT100 (only for ZP901,ZP801,ZP601)
Resolution	0.001
Working Temp	-10~50°C

Description

This series is a single-loop intelligent PID regulator with superior performance and high reliability, which is suitable for conventional temperature control or automatic control of multiple industrial process quantities such as flow, pressure, and liquid level. Various outputs such as current, voltage, SSR drive, single/three-phase thyristor shifting/zero crossing, relay, etc. can be used to realize quantitative, programming curve and other control methods.

Dimension

- Z90D 96*96
- Z80D 48*96
- Z60D 96*48

Technical Data

Z90D/Z80D/Z60D		
Display Range	0.100~999.9 (The decimal point can be shifted)	
Accuracy	+/-0.2%FS	
Power	110-240Vdc; 20-32Vdc	
Output Signal	4-20mA;0-5V;0-10V	
Input Signal	2mV/V;3.33mV/V;4-20mA;0-10V;0-5V	
Comunication	RS485,RS232,Mod-Bus	
Resolution	0.001	
Working Temp	-10~50°C	