

## 七、数字显示仪表 Digital Display Instrument

数字显示仪表测量精度高，读数方便准确，功能繁多。本公司总结多年数字仪表制造的经验，广泛研究国内外先进产品，结合中国工业的现场应用的特点先后研制了各系列数字仪表。本公司目前生产的数字仪表有XM系列智能仪表、XMZ/XMT系列数字显示(调节)仪、XMD系列巡回检测仪和XPN型智能流量积算仪。

Digital display instrument has high accuracy, easy reading and various function. We engage in digital instrument for many years, research local and foreign advanced products extensively. We developed various models suitable for chinese industry. They are XM series of intellectual digital display instrument, XMZ / XMT series of display & control instrument, XMD series of data logging instrument, XPN series of intellectual flow accumulating calculation instrument.

### 1. XM系列智能仪表 XM Series of Intellectual Instrument

XM系列产品集中采用多项先进技术，大大提高了运行的稳定性和可靠性，对数字化智能仪表在严酷的电磁干扰环境下的应用实现了零的突破。

XM系列仪表作为工业过程自动化系统中的检测和控制仪表产品，广泛用于电力、石油、化工、冶金、造纸、印染、酿造等行业。

XM series instrument adopt advanced techniques, with stable and reliable performances and strong resistance against interference.

XM series instrument are industry processing automatic control instrument, widely used in electric power, petroleum, chemical, metallurgy, papermaking, printing and dyeing, brewing and so on.

## ■ 通用技术参数 General Technical Data

1. 使用条件: 环境温度0-50℃; 相对湿度 < 90%
2. 电源电压: AC(85-265)V; 电源频率(50/60)Hz
3. 基本误差:  $\delta = \pm (0.5\%F + S + 1\text{dig})$ 。
4. 输入特性: 电偶型, 电压信号型: 输入阻抗500k $\Omega$   
标准电流型: 输入阻抗250 $\Omega$   
电阻型: 电阻要求0-5 $\Omega$  三根引线  
脉冲输入型: 正弦波, 三角波, 方波  
(f < 8kHz, 300mV < 幅值 < 12V)  
脉冲电流, 脉冲电压, 无源触点等
5. 输出特性: 继电器触点容量为5A/240V AC  
或5A/24V DC, 阻性负载;  
隔离电流信号输出, 负载电阻 < 750 $\Omega$   
隔离电压信号输出, 负载电阻 > 250k $\Omega$
6. 内部冷端补偿温度范围: 0-50℃
7. 直流电源输出: 电压24V, 最大电流50mA,  
配接二线制变送器
8. 功率: < 5W
9. 输入配套规格

## 配用标准信号变送器的仪表规格

### Specifications of Matched Transmitters

信号变化范围 Signal Range	最高分辨率 Max. Resolving Power	测量范围 Measuring Range	配用的变送器 Matched Transmitters
0-10mA	2 $\mu$ A	根据客户要求确定 On Request	与DDZ-II型仪表配套 Matched with DDZ-II
(4-20)mA	4 $\mu$ A		与DDZ-III型仪表配套 Matched with DDZ-III
0-5V	1mV		与DDZ-II型仪表配套 Matched with DDZ-II
(1-5)V	1mV		与DDZ-III型仪表配套 Matched with DDZ-III
(30-350) $\Omega$	0.1 $\Omega$		远传压力表(30-350) $\Omega$ Long-distance Pressure Gauge
根据客户要求确定 On Request			各种线性变送器 Various Linear Transmitters

## 配用标准分度号传感器的仪表规格

### Specifications of Matched Standard Graduation Temperature Sensors

1. Operating conditions: ambient temperature 0-50℃  
relative humidity < 90%
2. Power supply: AC(85-285)V; power frequency (50/60)Hz
3. Elemental error:  $\delta = \pm (0.5\%F + S + 1\text{dig})$
4. Input characters: Thermocouple voltage signal: input impedance 500k $\Omega$   
Standard current signal: input impedance 250 $\Omega$   
Thermal resistance signal: wire resistance 0-5 $\Omega$ ,  
equal for three wire  
Pulse input: sine wave, triangle wave,  
square wave(f < 8kHz,  
300mV < width value < 12V), pulse current,  
pulse voltage, no power contact and so on.
5. Output characters: contact capacity of relay: 5A/240V AC or  
5A/24V DC resistance loading,  
current signal output, loading < 750 $\Omega$   
voltage signal output, loading > 250k $\Omega$
6. Compensation range at cool end: 0-50℃
7. DC power output: voltage 24V, max. current 50mA,  
matched with two wire transmitters
8. Power: < 5W
9. Specifications

分度号 Graduation	分辨率(℃) Resolving Power	测量范围(℃) Measuring Range	配用传感器 Matched Sensor	
B	1	700-1800	铂铑-铂铑-热电偶 PtRh-PtRh Thermocouple	
S	1	0-1600	铂铑-铂热电偶 PtRh-Pt Thermocouple	
R	1	0-1800	铂铑-铂热电偶 PtRh-Pt Thermocouple	
K	1	0-1300	镍铬-镍硅热电偶 NiCr-NiSi Thermocouple	
E	1	0-800	镍铬-铜镍热电偶 NiCr-CuNi Thermocouple	
J	1	0-1000		
T	1	-200-400		
Pt100	0.1	-199.9-600.0		
Cu50	0.1	-50.0-150.0		
Cu100	0.1	-50.0-150.0		
				铂热电阻R <sub>0</sub> =50 $\Omega$ Cu Thermal Resistance
				铂热电阻R <sub>0</sub> =100 $\Omega$ Cu Thermal Resistance

# (1)XM智能数字显示仪表 XM Intellectual Digital Display Instrument

## 主要特点 Features

采用万能输入设置,使每块仪表仅通过简单快捷的菜单选择,即可适配各种分度号。  
Match with various graduation through easy menu choice.



## 型谱 Type Code

型谱		Type Code	说明	Description
XMZ			智能型仪表	Intellectual Instrument
	1	宽×高×深: Width·Height·Thickness	(160x80x115)mm	
	2		(80x160x115)mm	
	4		(48x48x100)mm	
	5		(48x48x112)mm	
	7		(72x72x100)mm	
	8		(48x96x112)mm	
	9		(96x96x112)mm	
	0	适配(0~20)mA输入		Matched with (0~20) mA input
	1	适配K E S R T J B热电偶		Matched with K E S R T J B thermocouple
	2	适配Pt100、Cu50、Cu100热电阻		Matched with Pt100, Cu50, Cu100 thermometers resistance
	3	适配霍尔变送器mV		Matched with Hall transmitter mV
	4	适配远传压力表(30~350)Ω		Matched with remote transmission pressure gauge (30 ~ 350) Ω
	5	适配(0~10)mA输入		Matched with (0~10) mA input
	6	适配(4~20)mA输入		Matched with (4~20) mA input
	7	适配(0~5)V输入		Matched with (0 ~ 5) V input
	8	适配(1~5)V输入		Matched with (1 ~ 5) V input
	9	客户特殊要求的分度号		Decided by users
	D	缺省为220V AC供电		Blank for 220V AC power supply
		24V DC供电		24V DC power supply
	P	缺省为无附加24V DC供电电源输出		Blank for no additional 24V DC power output
		附加24V DC供电电源输出		Additional 24V DC power output
		缺省为不带串行通讯接口		Blank for no communication terminal
		2	RS232串行通讯接口	RS232 communication terminal
		4	RS485串行通讯接口(带隔离)	RS485 separation communication terminal
		B	设计序号	Design number

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## (2)XM智能位式控制数字/光柱显示仪表

XM Intellectual Digits Control Digital/Light Pillar Display Instrument



### 主要特点 Features

1. 双屏显示, 主屏显示测量值, 副屏显示报警值。控制参数快捷方式设定。
  2. 继电器上下限报警方式自由组态。
  3. 传感器断线保护输出(ON/OFF)方式预置。
  4. 最多设有四个报警点输出, 组成上上限、上限、下限、下下限报警。
1. Double screen setting, main screen for displaying measuring value, sub-screen for displaying alarming. Controlling parameter set by fast way.
  2. Relay upper and lower limits alarming way set by user.
  3. Sensor break off protect output way (ON/OFF) set before hand.
  4. Four alarming point output at most, they are upper and upper limits, upper limit, lower limit, lower and lower limits.

### 型谱 Type Code

型谱	Type Code	说明	Description
XMT		智能型仪表 Intellectual Instrument	
	1	宽*高*深: Width * Height * Thickness	{160x80x115}mm
	2		{80x160x115}mm
	4		{48x48x100}mm *
	6		{96x48x112}mm
	7		{72x72x100}mm *
	8		{48x96x112}mm
	9		{96x96x112}mm
	T	位式控制	Digits control
	GT	位式控制+单光柱 *	Digits control +Single light pillar
	0	报警(02)+报警(03)	Alarming(02) + Alarming(03)
	1	上限报警(01)+报警(02)+报警(03)+下限报警(04)	Upper limit alarming(01) + Alarming(02) + Alarming(03) + Lower limit alarming (04)
	4	通讯(01)+报警(02)+报警(03)	Communication (01) + Alarming(02) + Alarming(03)
	5	通讯(01)+报警(02)+报警(03)+下限报警(04)	Communication (01) + Alarming(02) + Alarming(03) + Lower limit alarming (04)
	9	客户特殊要求的输出	Output decided by users
	0	输入信号类型由客户自由选择, 出厂时设定在(4~20)mA输入	Input signal decided by users, producer set value is (4~20) mA
	1	适配K B J E T R S热电偶	Matched with K B J E T R S thermocouple
	2	适配Pt100, Cu50热电阻	Matched with Pt100, Cu50 thermometer resistance
	3	适配霍尔变送器mV	Matched with Hall thansmitter mV
	4	适配远传压力表(30~350)Ω	Matched with remote thansmission pressure gauge (30~350) Ω
	6	适配(4~20)mA输入	Matched with (4~20) mA input
	8	适配(1~5)V输入	Matched with (1~5) V input
	9	客户特殊要求的分度号	Decided by users
		缺省为220V AC供电	Blank for 220V AC power supply
	D	24V DC供电	24V DC power supply
		缺省为无附加24V DC供电电源输出	Blank for no additional 24V DC power output
	P	附加24V DC供电电源输出	Additional 24V DC power output
		缺省为不带串行通讯接口	Blank for no communication terminal
	2	RS232串行通讯接口	RS232 communication terminal
	4	RS485串行通讯接口(带隔离)	RS485 separation communication terminal
	B	设计序号	Design number

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\* (48x48x100)mm (72x72x100)mm规格, 订货时请向公司咨询。

\* 报警(02),报警(03)客户可自行组态为上限报警或下限报警。

Please consult producer before ordering (48x48x100) mm and (72x72x100)mm type.

Alarming (02) and Alarming (03) can be upper limit or lower limit set by customers.

### (3)XM智能变送控制数字/光柱显示仪表

XM Intellectual Transmitting Control Digital/Light Pillar Display Instrument

#### 主要特点 Features

1. 具有控制仪表的一般特点。With general features of controlling instruments.
2. 可由面板光柱显示变送的比例值。Light pillar displays measuring range percentage.
3. (4~20mA)或(1~5)V变送输出。4~20mA or 1~5V output.



#### 型谱 Type Code

型谱 Type Code		说明 Description
XMT		
智能型仪表 Intellectual Instrument		
1	宽×高×深: Width×Height×Thickness	(160×80×115)mm
2		(80×160×115)mm
4		(48×48×100)mm *
6		(96×48×112)mm
7		(72×72×100)mm *
8		(48×96×112)mm
9		(96×96×112)mm
0	报警(02)+报警(03)+(4~20)mA变送输出(04)	Alarming(02)+Alarming(03)+(4~20)mA transmitting output (04)
1	报警(02)+报警(03)+(1~5)V变送输出(04)	Alarming(02)+Alarming(03)+(1~5)V transmitting output (04)
2	上限报警(01)+报警(02)+报警(03)+(4~20)mA变送输出(04)	Upper limit alarming(01)+Alarming(02)+Alarming(03)+(4~20)mA transmitting output (04)
3	上限报警(01)+报警(02)+报警(03)+(1~5)V变送输出(04)	Upper limit alarming(01)+Alarming(02)+Alarming(03)+(1~5)V transmitting output (04)
4	通讯(01)+报警(02)+报警(03)+(4~20)mA变送输出(04)	Communication (01)+Alarming(02)+Alarming(03)+(4~20)mA transmitting output (04)
5	通讯(01)+报警(02)+报警(03)+(1~5)V变送输出(04)	Communication (01)+Alarming(02)+Alarming(03)+(1~5)V transmitting output (04)
9	客户特殊要求的输出	Output decided by users
0	输入信号类型由客户自由选择, 出厂时设定在(4~20)mA输入	Input signal decided by users; producer set value is (4~20)mA
1	适配K B J E T R S热电偶	Matched with K B J E T R S thermocouple
2	适配P1100, Cu50热电偶	Matched with P1100, Cu50 thermometer resistance
3	适配霍尔变送器mV	Matched with Hall transmitter mV
4	适配远传压力表(30~350)Ω	Matched with remote transmission pressure gauge (30~350)Ω
6	适配(4~20)mA输入	Matched with (4~20)mA input
8	适配(1~5)V输入	Matched with (1~5)V input
9	客户特殊要求的分度号	Decided by users
	缺省为220V AC供电	Blank for 220V AC power supply
D	24V DC供电	24V DC power supply
	缺省为无附加24V DC供电电源输出	Blank for no additional 24V DC power output
P	附加24V DC供电电源输出	Additional 24V DC power output
	缺省为不带串行通讯接口	Blank for no communication terminal
2	RS232串行通讯接口	RS232 communication terminal
4	RS485串行通讯接口(带隔离)	RS485 separation communication terminal
B	设计序号	Design number

\* (48×48×100)mm (72×72×100)mm规格, 订货时请向公司咨询。

\* 报警(02),报警(03)客户可自行组态为上限报警或下限报警。

Please consult producer before ordering (48×48×100) mm and (72×72×100)mm type.

Alarming (02) and Alarming (03) can be upper limit or lower limit set by customers.

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#### (4)XM智能自整定PID调节数字/光柱显示仪表

XM Intellectual Automatic PID Regulation Digital/Light Pillar Display Instrument



#### 主要特点 Features

- |                          |  |
|--------------------------|--|
| 1. 快捷方式设定目标值。            | Setting values by fast way.  |
| 2. 自动/手动无扰切换。            | Free switch between manual and automatic operation.                        |
| 3. 传感器断线时自动输出安全阀位值。      | Automatic transmission of safety valve level value in break off of sensor. |
| 4. 具有多种调节输出方法。           | Various regulation output way.   |
| 5. PID参数自整定或人工整定, 参数范围宽。 | PID parameters automatic or manual regulation, parameters range wide.      |
| 6. 可同时带测量信号变送输出。         | Having measuring signal transmitting output.                               |

#### 型谱 Type Code

型谱	Type Code	说明	Description
XMT		智能型仪表	Intellectual Instrument
1	宽×高×深: Width×Height×Thickness	(160×80×115)mm	
2		(80×160×115)mm	
4		(48×48×100)mm *	
6		(96×48×112)mm	
7		(72×72×100)mm *	
8		(48×48×110)mm	
9		(60×60×112)mm	
A	自整定PID调节	Automatic PID Regulation	
GA	自整定PID调节+双光柱 *	Automatic PID Regulation + Double light pillar	
V	调节器(1-5)V标准电压输出(O4)	Regulation standard voltage (1-5) V output(O4)	
I	调节器(4-20)mA标准电流输出(O4)	Regulation standard current (4-20) mA output(O4)	
S	调节可控硅过零控制输出(O4)	Regulation silicon-controlled zero surpassing control output (O4)	
W	调节PWM调宽电压输出(20V DC, 20mA)(O4)	Regulation PWM modulation voltage output (20V DC, 20mA) (O4)	
R	调节PWM调宽继电器输出(O4)	Regulation PWM modulation relay output (O4)	
0	无输出	No Output	
1	报警(O2)+报警(O3)	Alarming(O2) + Alarming(O3)	
2	(4-20)mA变送输出(O1)+报警(O2)+报警(O3)	(4-20) mA transmitting output (O1) + Alarming(O2) + Alarming(O3)	
3	(1-5)V变送输出(O1)+报警(O2)+报警(O3)	(1-5) V transmitting output (O1) + Alarming(O2) + Alarming(O3)	
4	通讯(O1)+报警(O2)+报警(O3)	Communication (O1) + Alarming(O2) + Alarming(O3)	
5	通讯(O1)+(4-20)mA变送输出(O2)+报警(O3)	Communication (O1) + (4-20) mA transmitting output (O2) + Alarming(O3)	
6	通讯(O1)+(1-5)V变送输出(O2)+报警(O3)	Communication (O1) + (1-5) V transmitting output (O2) + Alarming(O3)	
9	客户特殊要求的输出	Output decided by customers	
0	输入信号类型由客户自由选择, 出厂时设定在(4-20)mA输入	Input signal decided by users, producer set value is (4-20) mA	
1	适配K B J E T S R热电偶	Matched with K B J E T S R thermocouple	
2	适配Pt100, Cu50热电阻	Matched with Pt100, Cu50 thermal resistance	
3	适配霍尔变送器mV	Matched with Hall transmitter mV	
4	适配远传压力表(30-350)kPa	Matched with remote transmission pressure gauge (30-350) kPa	
6	适配(4-20)mA输入	Matched with (4-20) mA input	
8	适配(1-5)V输入	Matched with (1-5) V input	
9	客户特殊要求的信号	Decided by customers	
	缺省为220V AC供电	Blank for 220V AC power supply	
D	24V DC供电	24V DC power supply	
	缺省为无附加24V DC供电电源输出	Blank for no additional 24V DC power output	
P	附加24V DC供电电源输出	Additional 24V DC power output	
	缺省为不带串行通讯接口	Blank for no communication terminal	
2	RS232串行通讯接口	RS232 communication terminal	
4	RS485串行通讯接口(带隔离)	RS485 separation communication terminal	
B	设计序号	Design number	

\* (48×48×100)mm (72×72×100)mm规格, 订货时请向公司咨询。

\* 报警(O2),报警(O3)客户可自行组态为上限报警或下限报警。

Please consult producer before ordering (48×48×100) mm and (72×72×100)mm type.

Alarming (O2) and Alarming (O3) can be upper limit or lower limit set by customers.

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## 2. XMZ/XMT系列数字显示(调节)仪 XMZ/XMT Digital Display (Regulation) Instrument

XM系列数字显示调节仪结构和线路非常简单, 可靠性高。电路使用了20mm(0.8英寸)或12.5mm(0.5英寸)数码显示, 读数清晰。

本仪表适用于工业过程多种参数测量和控制系统, 可以与下列传感器、变送器配合使用。

- 热电偶
- 热电阻和电阻产生变化的传感器
- 霍尔压力变送器或产生直流电压变化的传感变送器
- 电阻远传压力表
- 标准模拟直流电信号或其它直流信号

XM series instruments have simple structure and high reliability. They use 20mm(0.8 inch) or 12.5mm(0.5 inch) nixie display, have clear reading.

XM series suit for industry process measuring and controlling system, matched with sensors and transmitters as follows:

- thermocouple
- thermal resistance and sensors with changing resistance
- Hall pressure transmitter or transmitters with changing direct current
- resistance remote transmission pressure gauge
- standard analogue direct current signal or other direct current signals

### 通用技术参数 General Technical Data

- 显示方式: 3 $\frac{1}{2}$ LED数码显示, 最大读数 $\pm 1999$
- 基本误差:  $\pm 0.5\%F \cdot S$
- 分辨率:  $\pm 200^{\circ}C$  以下为 $0.1^{\circ}C$ ,  $\pm 200^{\circ}C$  以上为 $1^{\circ}C$
- 零点漂移: 1小时内零点漂移小于基本误差的 $1/5$
- 连续运行: 仪表24小时连续工作后, 其误差仍小于基本误差
- 电源电压: 交流220 $\pm 2\%$ V, 电源频率(50 $\pm 2$ )Hz
- 环境温度: 0~50 $^{\circ}C$
- 相对湿度:  $< 85\%$
- 位式控制: 设定范围为全量程, 控制误差小于 $\pm 0.5\%F \cdot S$   
输出接点容量: 220V, 3A 交流无感负载  
注: 位式设定上下限设定不能超过 $1/3$ 限设定。
- 恒流输出: 0~10mA 负载为 $0 \sim 1k\Omega$ , 4~20mA 负载为 $0 \sim 500\Omega$ , 输出准确度为 $\pm 0.5\%F \cdot S$
- 功耗:  $< 5W$

- Display pattern: 3 $\frac{1}{2}$ LED nixie display, max value  $\pm 1999$
- Elementary error:  $\pm 0.5\%F \cdot S$
- Resolving power:  $0.1^{\circ}C$  within  $\pm 200^{\circ}C$ ,  $1^{\circ}C$  beyond  $\pm 200^{\circ}C$
- Zero point drift: less than one fifth of elementary error, within an hour
- Continuous running: less than elementary error after 24 hours continuous running
- Power supply: 220V $\pm 2\%$  V AC, 50Hz $\pm 2\%$ Hz
- Ambient temperature: 0~50 $^{\circ}C$
- Relative humidity:  $< 85\%$
- Digit control: set range is full scale, control error less than  $\pm 0.5\%F \cdot S$   
Output contact capacity: 220V, 3A no inductance loading  
Note: lower limit set less than upper limit set in three digits set.
- Constant current output: 0~10mA, loading  $< 1k\Omega$   
4~20mA loading  $< 500\Omega$   
Output accuracy is  $\pm 0.5\%F \cdot S$
- Power:  $< 5W$

### 型谱 Type Code

型谱	Type Code	说明	Description	
XM		XM系列数字显示(调节)仪表 XM Digital Display (Regulation) Instrument		
	Z	单显示	Only Display	
	T	显示调节	Display and Regulation	
	A	横式	Horizontal	
	H	竖式	Vertical	
		缺省为方表	Blank for square	
	1	外形尺寸: (180x80 $\frac{1}{2}$ )mm 开孔尺寸: (152x72)mm	带统一标准信号输出 With identical standard signal output 带一路DC恒定电压源输出 With a DC constant voltage supply output	
	2	External Dimension		Hole
	3			
	4	外形尺寸: (98x98 $\frac{1}{2}$ )mm 开孔尺寸: (82x82)mm	带统一标准信号输出 With identical standard signal output 带一路DC恒定电压源输出 With a DC constant voltage supply output	
	5	External Dimension		Hole
	6			
	7	外形尺寸External Dimension: (72x72x135)mm 开孔尺寸Hole: (68x68)mm		
	0	显示或调节	Display or regulation	
	2	上下限调节或报警	Upper and lower limits regulation or alarming	
	3	时间比例	Time ratio	
	5	固定PID	Fixed PID	
	1	适配热电偶	Matched with thermocouple	
	2	适配热电阻	Matched with thermal resistance	
	3	适配电压信号	Matched with voltage signal	
	4	适配远传压力表电阻信号	Matched with resistance signal of remote transmission pressure gauge	
	5	适配电流信号	Matched with current signal	
	G	带单光柱	With single light pillar	
	SG	带双光柱	With double light pillar	



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### 3. XMD系列巡回检测仪 XMD Series Data Logging Instrument

XMD系列仪表以单片机为核心,用软件处理非线性,可与热电偶、热电阻、变送器配套使用,测量气体、液体、固体、蒸汽和烟气的压力、温度,并可与计算机联用达到自动检测和集中控制工业过程的目的。

It uses single chip computer as core and uses software to treat non-linear data. It can be equipped together with thermocouple, thermal resistance and transmitter in use. It can indicate and measure the parameters of gas, liquid, solid steam and smoke, such as temperature, pressure and so on, during the period of production, It can also be equipped together with computer to implement automatic measurement and centralized control during the period of production.



#### 通用技术参数 General Technical Data

1. 显示方式: 温度显示: 四位LED, 测量通道显示: 二位LED
2. 准确度:  $\pm 0.5\%F \cdot S$
3. 自动巡回速度: 3-10秒/点
4. 工作方式: 自动、手动
5. 巡回容量: < 24点
6. 冷端补偿: 用PN结补偿, 误差 $\pm 2^{\circ}C$  (0-50 $^{\circ}C$ 范围内)
7. 抗干扰能力: (1)串模抑制能力:  $> 50dB$   
(2)共模抑制能力:  $> 100dB$  (最大共模电压 $< 250V$ )
8. 环境温度: 0-50 $^{\circ}C$
9. 相对湿度:  $< 85\%$
10. 电源电压: 220V  $\pm$  22V AC 电源频率 50Hz  $\pm$  2Hz
11. 功耗:  $< 8W$

1. Display pattern: temperature display: four digits LED; measuring channel display: two digits LED
2. Accuracy:  $\pm 0.5\%F \cdot S$
3. Automatic data logging speed: 3-10 sec./channel
4. Operating pattern: automatic, manual
5. Logging capacity:  $< 24$  channel
6. Compensation at cool end: by PN junction, error  $\pm 2^{\circ}C$  within 0-50 $^{\circ}C$
7. Resistance against interference:  
(1) series mode suppressor ability:  $> 50dB$   
(2) common mode suppressor ability:  $> 100dB$  (Max. common mode voltage  $< 250V$ )
8. Ambient temperature: 0-50 $^{\circ}C$
9. Relative humidity:  $< 85\%$
10. Supply voltage: 220V  $\pm$  22V AC 50Hz  $\pm$  2Hz
11. Power:  $< 8W$

南京迪泰尔仪表机电设备有限公司

#### 型谱 Type Code

型谱	Type Code	说明	Description
XMD		XMD巡回检测仪 XMD Data Logging Instrument	
A	外形: 宽x高x深	(160x80x115)mm	开孔: (152x76)mm
H	External Dimension	(80x160x115)mm	Hole (76x152)mm
0	不带控制报警输出, 不带变送输出 No alarming output, no transmitting output		
1	上限报警(O2); 下限报警(O3) Upper limit alarming(O2) + Lower limit alarming (O3)		
2	变送输出+上限报警(O2); 下限报警(O3) Transmitting output + Upper limit alarming(O2) + Lower limit alarming (O3)		
3	带继电器组 With relay contact combination		
4	客户特殊要求的输出 Output decided by customers		
0	万能输入 Input signal decided by customers		
1	适配K B J E T S R热电偶 Matched with K B J E T S R thermocouple		
2	适配Pt100, Cu50热电阻 Matched with Pt100, Cu50 thermal resistance		
3	适配霍尔变送器mV Matched with Hall transmitter mV		
4	适配(4-20)mA输入 Matched with (4-20) mA input		
5	适配(1-5)V输入 Matched with (1-5) V input		
6	客户特殊要求的分度号 Decided by customers		
08	八路 8 channel		
16	十六路 16 channel		
24	二十四路 24 channel		
	缺省为220V AC供电 Blank for 220V AC power supply		
D	24V DC供电 24V DC power supply		
	缺省为无以下功能 Blank for no function		
1	微型打印机通讯接口 Printer communication terminal		
2	RS232串行通讯接口 RS232 communication terminal		
4	RS485串行通讯接口(带隔离) RS485 separation communication terminal		

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#### 4. XPN型智能流量积算仪 XPN Series of Intellectual Flow Accumulating Calculation Instrument

智能流量积算仪可与各种流量传感器或变送器（如：标准节流装置、涡轮、金属管浮子流量计等）相配，对气体、液体、饱和蒸汽、过热蒸汽的流量进行精确测量。仪表的特点：

1. 采用先进的单片机技术，全部浮点计算。
2. 采用EEPROM储存参数，保证设定参数和累计值永久可靠保存。
3. 设定参数方便、可靠。

It could match with various flow sensors or transmitters such as throttling device, turbine, metallic rotor and so on, to measuring and accumulating calculation of instantaneous flow of gas, liquid, saturated vapor or overheated steam. It has features below:

1. Adopt advanced single chip computer, floating-point calculation.
2. Adopt EEPROM for permanent and reliable saving of setting parameters and accumulate values.
3. Parameter setting easy and reliable.



#### 通用技术参数 General Technical Data

1. 输入：0-10mA DC, 4-20mA DC, 0-5V DC, 1-5V DC
2. 输出：0-10mA DC, 4-20mA DC, 0-5V DC, 1-5V DC
3. 功能：开方积算、比例积算、温度压力补偿
4. 显示：瞬时流量、累计流量、差压、温度等六位LED显示
5. 基本误差： $\pm 0.5\% F \cdot S$
6. 电源电压：220V AC  $\pm 10\%$ , 50Hz  $\pm 2Hz$

1. Input: 0-10mA DC, 4-20mA DC, 0-5V DC, 1-5V DC
2. Output: 0-10mA DC, 4-20mA DC, 0-5V DC, 1-5V DC
3. Function: evolution and ratio integrating, temperature and pressure compensation;
4. Display: display in 6 bit LED instantaneous flow, accumulated flow, differential pressure and temperature,
5. Elementary error:  $\pm 0.5\% F \cdot S$
6. Supply voltage: 220V AC  $\pm 10\%$ , 50Hz  $\pm 2Hz$

#### 型谱 Type Code

型谱		Type Code	说明		Description
XPN		XPN智能流量积算仪表	XPN Series of Intellectual Flow Accumulating Calculation Instrument		
	K	开方积算	Evolution integrating		
	P	模拟信号比例积算	Analogue signal ratio integrating		
	F	频率信号比例积算	Frequency signal ratio integrating		
	0	不带补偿	Without compensation		
	1	不带补偿，带24VDC输出	Without compensation, with 24V DC output		
	2	带补偿配二线制变送器	With compensation, suit for two wires transmitter		
	3	带补偿配变送器	With compensation, suit for transmitter		
	4	带补偿配热电阻或热电偶	With compensation, suit for resistance thermometer or thermocouple		
	0	无附加功能	Without additional function		
	1	带模拟输出	With analogue output		
	2	带定量控制	With quantitative control		
	3	带定量控制，带输出	With quantitative control and output		
	4	带上下限报警	With upper and lower limits alarming		
	5	特殊功能	Special function		
	A	外形: 宽×高×深	(160x80x115)mm	开孔	(152x76)mm
	H	External Dimension	(80x160x115)mm	Hole	(76x152)mm