

**New!**

# uP4-Din

## Universal Input Indicator, Din-Rail, Controller, Transmitter.



### Features.

- ◆ Universal Input with Indication.
- ◆ DIN Rail Mount.
- ◆ Universal AC or DC supply.
- ◆ Two Relay Outputs (with Setpoint LEDs).
- ◆ Option to add One Re-trans Analogue Output (4~20mA or 0~10Vdc selectable).
- ◆ Programmable via USB Port using uP Configure software and the **XU-USB** (Rev 1) key.
- ◆ Simple setup and calibration.
- ◆ 4-digit LED display with Transparent Cover.
- ◆ Sensor power supply for powering external transmitter.
- ◆ Low cost.

The uP4-Din is a DIN rail mount, universal single input indicator, which gives easy interface with a wide range of sensors. It is also fitted with two relay outputs (with two setpoint indicator LEDs), and one optional retransmission output (4~20mA or 0~10Vdc selectable). The uP4-Din has a 4-digit LED front display, and a universal power supply of 24~250Vac / 19.5~250Vdc. Setup and calibration is simple, using 'uP Configure' software (version 1.5.23 or later), with step-by-step instructions.

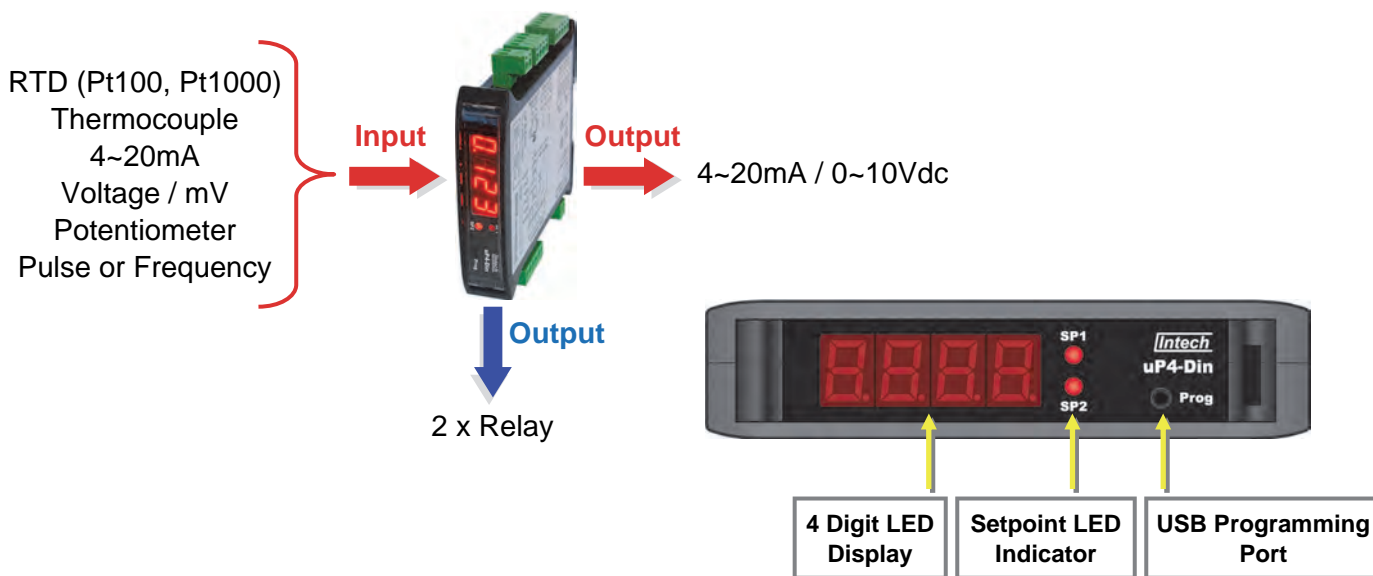
### Ordering Information.

CODE	DESCRIPTION
uP4-Din-R2	Universal Input Indicator, DIN rail mount with Two Relay Outputs.
uP4-Din-R2A	Universal Input Indicator, DIN rail mount with Two Relay Outputs plus One Analogue Output (4~20mA or 0~10Vdc selectable).



Universal Power Supply of 24~250Vac / 19.5~250Vdc.

<b>XU-USB (Rev 1)</b>	USB Programming Key for programming uP4-Din using <b>uP Configure</b> Programming software. Note: XU-USB must be (Rev 1) or later! Older versions will NOT connect with the uP4-Din. (Same Key as used for programming XU Series transmitters, 2400-A16, Z-2400-Sleeper, Z-2400-A2 Series and IN-uP4.)
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# Specifications

## Input Specifications:

**Excitation - Sensor Power Supply** +22Vdc  $\pm$ 10%, 25mA max.

### Voltage DC Input:

mV Range -200mV~200mV.

V Range 0~1V, 0~10V, -10~30V, 0~300Vdc.

Linearity and Repeatability  $<\pm$ 0.02% FSO typical.

### Current Input:

mA Range 0~20mA (4~20mA).

Input Resistance 10 $\Omega$ .

Linearity and Repeatability  $<\pm$ 0.02% FSO typical.

### Thermocouple Input:

Thermocouple Types B, E, J, K, N, R, S, T.

Input Impedance 1M $\Omega$  Minimum.

T/C Lead Resistance 100 $\Omega$  Maximum.

Cold Junction Compensation -10~70°C.

Accuracy E, J, K, N, T  $<\pm$ 1°C/ C.

B, R, S  $<\pm$ 2°C.

### RTD Input:

RTD Input Pt100 or Pt1000 DIN 3-wire Type.  
(2-wire can be used with offset calibration.)

Lead Wire Resistance Pt100: 50 $\Omega$ /wire Maximum. 0.02% FSO Offset Error per  $\Omega$  of Lead Resistance.  
Pt1000: 20 $\Omega$ /wire Maximum. 0.002% FSO Offset Error per  $\Omega$  of Lead Resistance.

Accuracy Better than 0.2°C.

Linearity (Pt100) 0.02% FSO for Span Inputs  $\leq$ 200°C. 0.1% FSO for Span Inputs  $\leq$ 300°C.

Linearity (Pt1000) 0.02% FSO for Span Inputs  $\leq$ 200°C. 0.2% FSO for Span Inputs  $\leq$ 300°C.

### NTC Thermistor Input:

NTC Sensor Types 10K (Beta 3984) -55~125°C, 10K (Beta 3435) -50~120°C.

### Pulse & Frequency Input:

Input Type Open Collector - NPN, PNP.

Frequency Range 0~2000Hz.

Software Modes General Frequency, Flow Rate or RPM.

### Potentiometer Input:

Potentiometer input 3-wire.

Excitation voltage Variable.

## Output Specifications:

Potentiometer resistance  $<$ 1k $\Omega$  low pot; 1~4k $\Omega$  med pot; 4~20k $\Omega$  high pot.

### Analogue Output:

Output type software selectable.

mA Range 0~20mA (4~20mA) Active.

V Range 0~10Vdc Active.

Isolation 1400Vrms for 1 minute. Working voltage 125V.

Output Drive 20mA, 600 $\Omega$  at 12Vdc.

Accuracy / Repeatability 0.05% of FSO.

### Relay Outputs:

2 Isolated Relays with LED indication on each output.  
Functions 2 on Board Controllers can be used as Set Point (SV), Switching Differential, Auto/Manual, Manual Output Setting, Dual Action Control, Single Action Control, Heat/Cool, Cool Only, Heat Only.

Relay Type & Ratings Relay 1: Form A, 3A max 120/240Vac or 28Vdc (resistive load).  
Relay 2: Form C, 10A max 120/240Vac or 28Vdc (resistive load).  
24~250Vac / 19.5~250Vdc (47-63Hz, 6VA max).

## Power Supply Specifications:

Isolation 2300Vrms for 1 minute to all inputs and outputs.

## Case Specifications:

IP20.

DIN Rail Mount 35mm.

Display 4 digits with Plastic Protective Flap.

Dimensions H=112mm, W=23mm, D=120mm.