NEWINS

2선식 습도 온도 변환기

MODEL NT5000M series

2-wire SMART Humidity & Temperature Transmitter

FEATURES

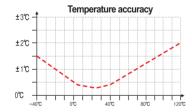
- Relative humidity and temperature sensors
- Excellent long-term stability
- High accuracy (1.8%RH)
- Selectable moving average filter
- Channel isolation current output (2wire 4.00~20.00mA) & Output scaling
- 4 Digit LCD for Parameter alteration and PV output on the spot
- Temperature and humidity according to set up cycle alternately Display (1~10sec)
- sensor compensation (Hamidity and Temp)



Temperature

• Element : Micro-machining CMOS

• Accuracy : at 25 $^{\circ}$ C $\,\pm\,$ 0.3 $^{\circ}$ C



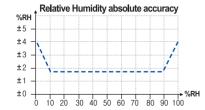
• Temperature detection range :

CMOSens[K] : -40.0~120.0°C Pt100 \(\Omega \) : −200~600°C • **Response time** : 1/e(63%)

Humidity

• Element : Micro-machining CMOS

Accuracy: ±1.8%RH at25 °C in the range of 10 to 90%RH



Humidity detection range: 0.0~100.0%RH
Response time: 1/e(63%) at25°C,1m/s air

Long term Stability: <0.5%RH/yr
Type of fluid: air and meutral gases





Etc

• Moving average filter : Selectable(None.04,08,16, 32)

• Power : DC 9~35Volt

• Output : Pt100 \(\Omega\), DC4.00~20.00mA

load limit (Vsp-9V)/0.022=R Ω

• Operation condition : Operating Temp/Humidity

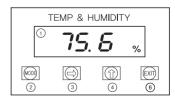
Room(-10~60°C, 10~90%) Duct(-10~60°C, 10~100%) Storage Temp/Humidity

-20~70°C, 5~95%

• Case material : Room(ABS + SUS316)

Duct(Al+SUS316)

PARTS NAME

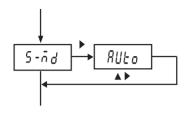


- ① **LCD Window**: Measured value display and Unit Message display
- ② MODE Key: Storage the set date and change the operation menu
- 3 SHIFT Key: Enter into the data setting mode And modify the changed location
- 4 UP key: Change the data value
- 5 EXIT Key:Out of mode



MAJOR FUNCTION

· Automatic, manual alteration function

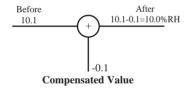


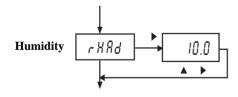
- Customer is mode (Auto, temperature, humidity) selection that wish to do display
- Auto (AUE₀): Temperature and humidity according to set up cycle alternately Display (1~10Sec)
- Temperature (ととうり): Temperature display
- Humidity (「出し」」): Humidity display
- · Sensor compensation function :

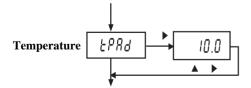
The function is useful for compensating error by long sensor line or changed zero point by aged sensor.

Ex)Before sensor adjust=10.1%RH

After sensor adjust=measured value+compensated value

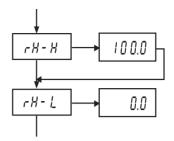






Correct constant error of temperature & humidity

· Output scaling function

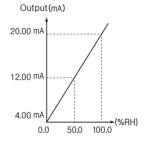


(Humidity 0.0~100.0%RH)

This function can change the $4.00\sim20.00$ mA value as the output scale. (Γ H $^-$ H)

Ex)In case of display value 0.0~100.0%RH, Output 4~20mA

setting to: High out (\(\Gamma \) \(\Gamma \) :100.0 Low out (\(\Gamma \) \(\Gamma \) :0.0

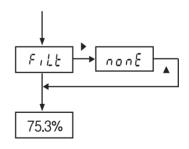


Setting to

High out (r H - H) : 100.0

Low out (- H - L) : 0.0

Filter function



Filter is moving average filter and it has 4 kinds of function.

nonE it displays the change of input with out filter.

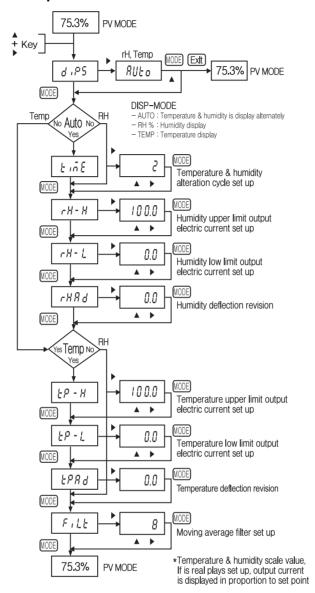
it displays in recent input No 4,8,16,32 sample average.

Setting filter function delays reponse. Do not use filter when high speed response is needed.

When output and display value are changed by irregular input, it is possibble to get regular input and display value by using filter function

OPERATION MODE

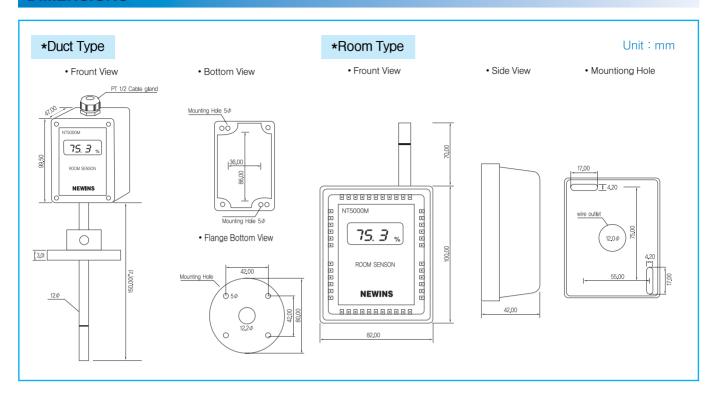
Buy instrument and user is mode that play set up according to use purpose. Data set up method refers each part button name.



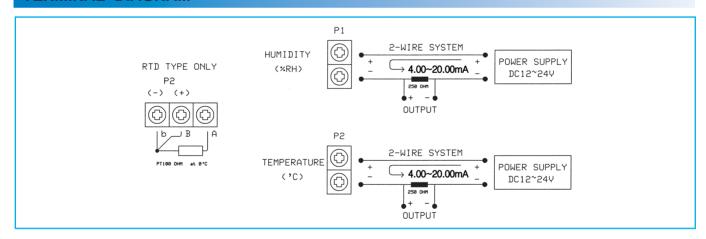
ORDERING CODE

Type	Output	Sensor length	Others	Description
NT5100M				Duct type
NT5200M				Room type
	1			RTD (Temperature only)
	2			4~20mA (Humidity only)
	3			RTD (Temperature), 4~20mA (Humidity)
	4			4~20mA (Temperature & Humidity)
		0		none
		1(*)		Sensor length 150mm standard
		2(*)		others sensor length L=()mm
			0	without slide flange
(*) Duct type only.			1	with slide flange

DIMENSIONS



TERMINAL DIAGRAM



NEWINS

공업용계측기 제조



지시계, 기록계, 콘버터, 조절계, 압력계, 온도계, 열전대, 발브

株式會社 뉴 인 스

서울사무소 : 서울특별시 강서구 염창동 274-8(코인빌딩 801)

TEL: (02)2668-2233 FAX: (02)2668-5100

본사 · 공장 : 경기도 부천시 원미구 약대동 192 부천테크노파크 203동 705호

TEL: (032)-234-0770 FAX: (032)234-0772 http://www.newins.co.kr E-mail:sales@newins.co.kr

For further information, a quotation or a demonstration please contact to



본 카다록은 제품향상을 위하여 사양, 디자인등을 예고 없이 변경될 수 있습니다.