

# CONOTEC

Digital Temperature/Humidity <u>Indicator</u>

CONOTEC CO., LTD.

www.conotec.co.kr

### Operating Manual $(\epsilon$ $(\epsilon$ FOX-M200 FM-2PT-1 FM-2CA-2 FOX-PM series FOX-CM series FM-5P.5C.5N

## Caution

#### Safety and Hazard Instructions

### ∆ Safety

Pls use this item after installing the duplex safety device in which is applied at dangerous factors such as serious human injury or damages of property & important machine because this item is not designed as safety device

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- · Please read the operating manual carefully before putting the device into operation.
- · We will not assume any responsibility for damage to assets or persons caused by improper handling or failure to observe the safety instructions or hazard warnings.
- · For safety and licensing reasons, unauthorized conversion and/or modification of the device is not permitted.
- · Do not exceed the maximum permissible current in case of higher loads, use a contactor of adequate power. Make sure that the supplied voltage matches the values specified for the instrument.
- · The device must be adequately protected from water and dust as per the application and must be accessible via the use of appropriate tools.
- · The device must not be exposed to extreme temperature, sunlight, strong vibrations or high levels of humidity.
- Operation or installation is not permitted under unfavorable ambient conditions such as wetness or excessive induction loads or solenoid and dust, combustible gases, vapors or solvents, especially high-frequency noise.
- · Avoid operation or installation close to high-frequency fields such as welding devices, sewing machines, wireless transmitter, radio systems, SCR controller, etc.
- · Do not install the sensor cable nearby signal cable, power cable, load cable.
- · Please use the shield cable when the sensor cable's lengthened, however do not make it too much longer.
- · Please use the sensor cable without any cutting or flaw, blemish.
- The device is not a toy and should be kept away from children.
- · Installation work must only be carried out by suitably qualified personnel who are familiar with the hazards involved and with the relevant regulations.
- · You shouldn't tinker with anything or the product may not be opened or disassembled unless you know what you're doing.
- · Please ask us about this questioning.

#### ∆ Danger

■ Attention! Never work on electrical connections when the machine is switched on.

# Digital Panel Meter

#### 1. FOX-M200 & 2PT-1 & 2CA-2

Model	FOX-M200	FM-2PT-1	FM-2CA-2		
Sensor	NTC(10K)	PT100Ω	CA(K)		
Temp.range	-55.0 ~ 99.9℃	-199.9 ~ 400℃	-50 ~ 1200℃		
Power Supply	230VAC 50/60Hz	100~240	50/60Hz		
Power consumption	Maximum: 1.5VA				
Ambient	0 ~ 55℃				
Temp/Humi	35 ~ 80%RH				
Storage Temp.	-10 ~ 70°C				
Correction of Temp.	<ul> <li>If you take off the front cover and use of up/down key, you can use the correction function for temperature.</li> <li>(left key = up, right key = down)</li> <li>Return at corrected temperature automatically after 5 seconds.</li> </ul>				
Display height	12.4mm				
Size	72mm X 36mm				

#### 2. FOX-PM series & CM series

Model	FOX-PM5000 FOX-PM5101 FOX-PM5102	(T)	FOX-	-PM6000(T) -PM6101(T) -PM6102(T)	FOX-CM5000 FOX-CM5000T
Sensor	PT100Ω		N <sup>-</sup>	ГС(10K)	CA(K)
Temp.range	-50 ~ 400°	C	-55	~ 99.9℃	0 ~ 1200℃
Waterproof	W	Waterproof			Non-waterproof
Power Supply	Please use the power supply only 12V AC/DC (electric current = over 150mA)  If you use a special power supply, please use the adaptor. (When deliver = 12V DC)  - Specification for Adaptor: 12V AC/DC output minimum electric current = 150mA  - If the adaptor is not used, it may cause a fire or out of order.  - When sensor wire lengthened(PM series)  ⇒ Pls use the 3P cable.  - When sensor wire lengthened(PM series)  ⇒ Pls use the thermo couple cable.  If you use it over 85°C, you have to use a special sensor.				
Ambient	0 ~ 70℃				
Temp/Humi	35 ~ 100%RH				
Storage Temp.	-10 ~ 70°C				
Display height	56.8mm				
Correction of Temp.	After taking off the back panel, on the basis of white wire, Short-circuit white and red: rise by 1°C white and black: reduce by 1°C (However, PM 6000 series is rise/reduse by 0.5°C.)				
Maximum correctiom	±30℃			±10℃	±50°C
Material and	Istainless ├──				M6000,CM5000
	<del>'</del>	**			PM6000T,CM5000T
			h side	PM5101,PM6101 PM5102,PM6102	
Туре			e side	PM5101T,PM6101T	
	stand type	bot	h side	PM5102T,	
EM-5N 8, EM-5P 8, EM-5C					

#### 3. FM-5N & FM-5P & FM-5C

Model	FM-5N	FM-5P	FM-5C	
Sensor	NTC(10K)	ΡΤ100Ω	CA(K)	
Temp.range	-55.0 ~ 99.9℃	-199.9 ~ 400℃	-50 ~ 1200 ℃	
Power Supply	100 ~ 240 VAC 50/60Hz			
Ambient	0 ~ 55℃			
Temp/Humi	35 ~ 80%RH			
Storage Temp.	-10 ~ 70°C			
Correction of Temp.	Rear terminal - UP Key: 13,14 - Down Key: 13,15			
Display height	20.3mm			
Size	96mm x 48mm			

## Connection

<drawing 1>

Double shield cable

■ FM-5P & FM-5C & FM-5N

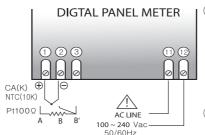
11 | 12 |

Pt100Ω

Input

LOW

#### ■ FOX-M200 & FM-2PT-1 & FM-2CA-2

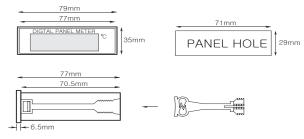


- (1) Connection of input
- When PT100Ω connected, pls connect ①A ②B ③B'
- When CA(K) connected, pls connect (1) + (2) - When NTC(10K) connect, pls connect 1 and 2
- without polarity (2) Please use shield cable like <drawing 1>. as following case:
- To lengthen input wire for measuring
- Possibility for of a noise (Only FOX-M200 model)

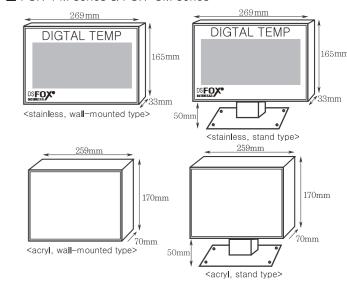
POWER SUPPLY 100~240V 50/60Hz

# Dimension

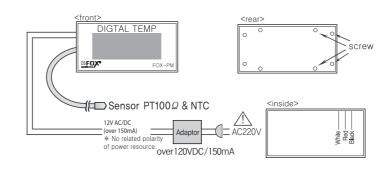
#### ■ FOX-M200 & FOX-2PT-1 & FOX-2CA-2



#### ■ FOX-PM series & FOX-CM series



### ■ FOX-PM series

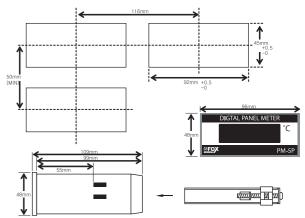


Digital

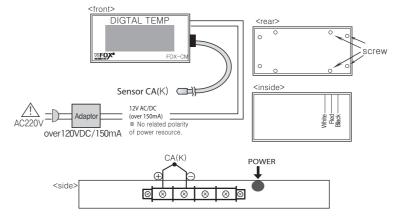
Panel Meter

13 | 14 | 15 | 16 |

### ■ FM-5P & FM-5C & FM-5N



#### ■ FOX-CM series



### Error message

- Erl: Memory error. Turn the power off and turn it on again. If the error message continued, please contact our A/S for
- o-E: Sensor error. The sensor is interrupted. Check the cable.
- S-E: Sensor error. The sensor is short-circuited. Check the cable.
- \* This device's specification can be changed without any notification to improve its quality
- H.Office: Ballyonsandan 1-ro, Jangan-eup, Gijang, Busan, Republic of Korea
- Factory: Ballyonsandan 1-ro, Jangan-eup, Gijang, Busan, Republic of Korea

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