
TEMPERATURE MEASUREMENT UNIT

TC – 16 (TC3)

SPECIFICATIONS

Specifications are subject to change without prior notice.

Rev.	Date	Revision history			ChangeNo.	Rep.
Create	October 6, 2017	PANTOS CO., LTD.				
Revision						
Text	4 pages	Writing	Check	Approve	Document number	Rev.
Figure	0 sheets	Kumeki	Takahata	Takahata	ACMA16-TC3-0001	
Cover	1 sheet					

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1. Outline

This is 16-channels input unit for measuring temperature. It is insulated between channels and between main unit cases. A temperature display and an analog signal are outputted.

2. Specifications

Basic specifications

Model	TC-16(TC3)
Name	TEMPERATURE MEASUREMENT UNIT
A/D resolution	16-bit
Function	Thermocouple measuring temperature
External dimensions	340(W)×180(H)×320(D)mm (Projection things are not included)
Mass	Approx. 8kg

Input part

Number of channels	16channels
Input form	Imbalance floating
	Between input/output and between channels are insulated each

Measurement range

Thermocouple JIS	K : -250°C ~ 1300°C
	T : -250°C ~ 400°C

Measurement accuracy

Thermocouple input	±0.1%(rdg)±2°C K,T	
	Reference junction compensation	±1°C K,T

Under the following conditions

- 23°C±5°C /35 to 85% RH
- 30min or more after power is supplied
- 6 months after shipment or calibration
- Noise is not included

Acceptable input voltage	30V(DC+AC) peak
Frequency characteristics	DC~Approx.5Hz(+0.5dB, -3dB)
Input impedance	Approx. 1MΩ
Maximum floating voltage	Between input terminal and case 500V(DC+AC) peak
	Between input channels 500V(DC+AC) peak
Noise	+0.3%/range Input short circuit
Common mode rejection ratio (CMRR)	-100dB or more
	50/60Hz signal source resistance 100Ω or below
Drift	Gain ±0.02% range/°C
	Zero ±0.02% range/°C
Input terminal	2 terminals +/- (for banana plug) made by copper

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Display	
Beam	Temperature display 4 beam Minimum beam 0.1°C -99.9°C~999.9°C Minimum beam 1°C -250°C~-100°C / 1000°C~1300°C
LED indication	Thermocouple K, T can be selected by type changeover switch For unused channels, you can turn OFF the display by selecting OFF
Analog output	
Conversion factor	1mV/°C , 10mV/°C (Switch by switch) -1mV/°C , -10mV/°C (Switch by switch) (Example : -50~200°C -50~200mV) (However, 1°C : At 10mV at 1000°Cmax)
Output impedance	1Ω or below
Connector	BNC type
General information	
Power supply	AC100V±10% 50~60Hz DC 12V(9V~16V)
Power consumption	AC : 50VA DC : 40VA
Usage environment	5°C ~ 40°C
Storage environment	0°C ~ 45°C
Insulation resistance	Between all the input terminals 50MΩ or more, 500V DC megger Between all the input terminals and chassis(GND) 50MΩ or more, 500V DC megger
Withstand voltage	Between all the input terminals 1.5kV AC 1min Between all the input terminals and chassis(GND) 1.5kV AC 1min
Vibration	0.1G or below (5~55Hz)
Impact	Unacceptable
Accessories	AC power supply cable (3P) 1.5m 1 DC power supply cable (2P) 3m 1 Fuse AC 2A 2 DC 5A 1 3 poles – 2 poles conversion adapter 1 Input terminal cover 1 Cover installation screw 4 Instruction manual 1

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Product name

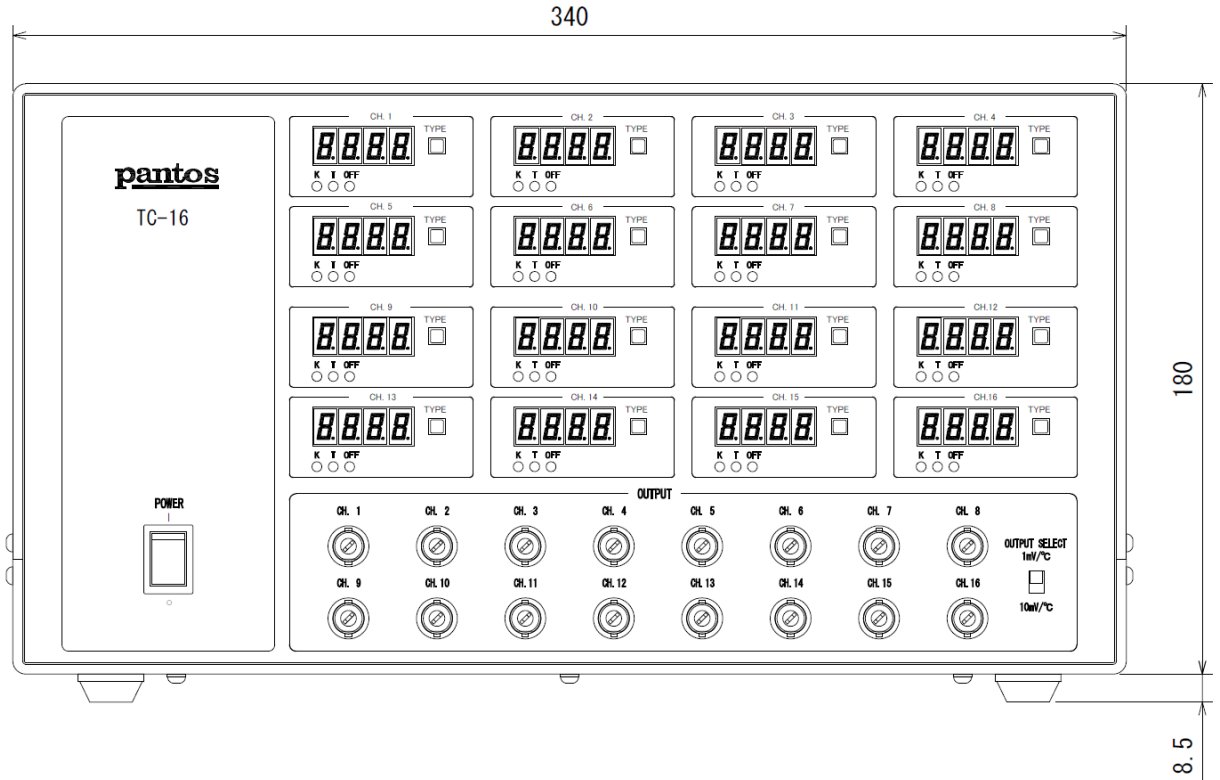
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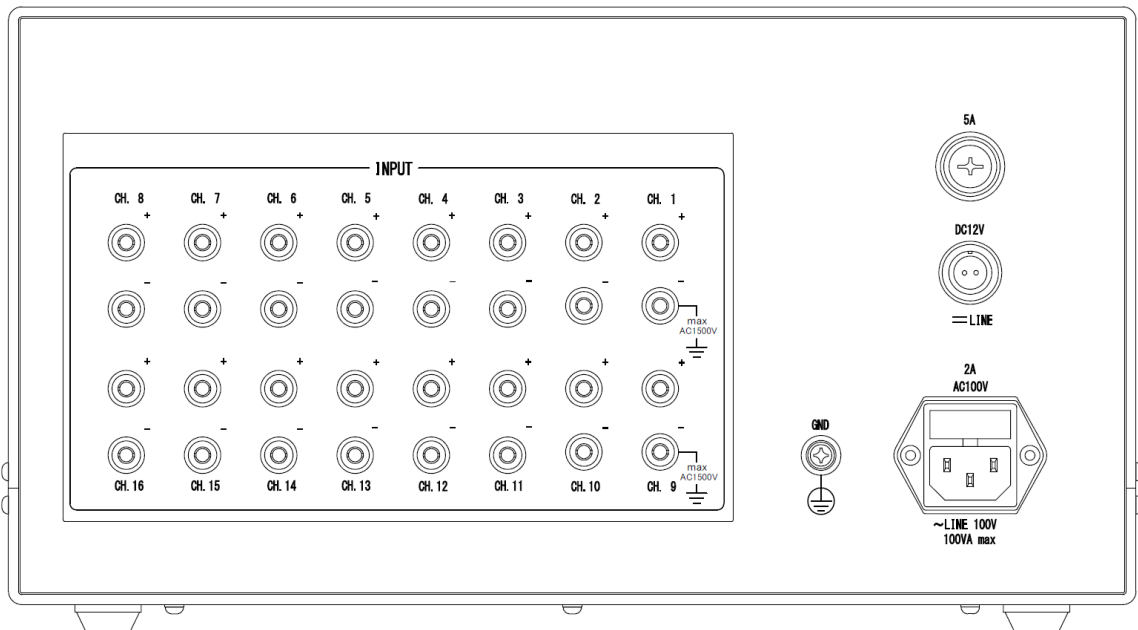
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3. External drawing

Front view



Rear view

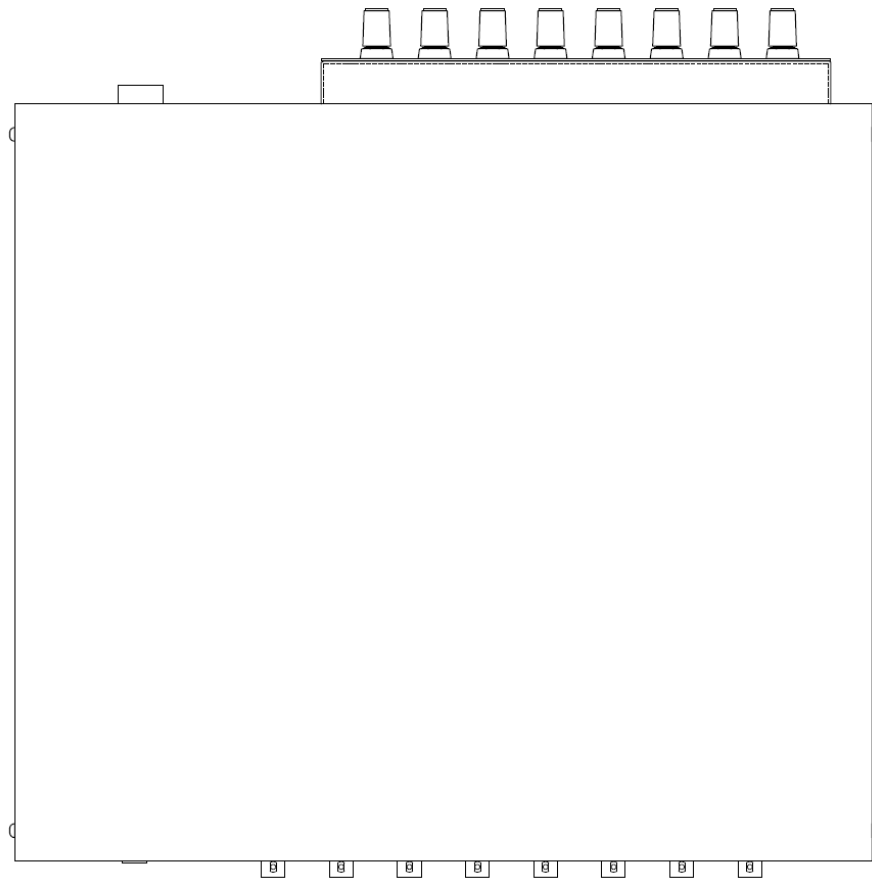


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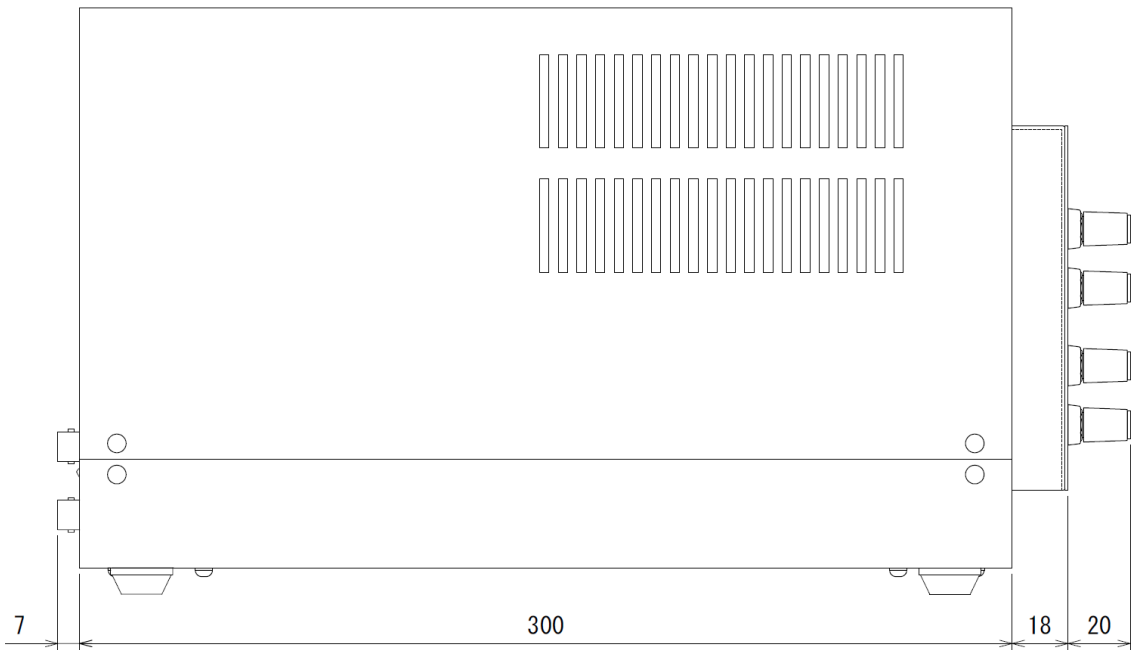
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Top view



Side view



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