

DMC temperature controller

Feature:

- ▶ Slim size 24 x 110 x 87 (W x H x D)
- ▶ Adjustable brightness of LED display, saving power consumption.
- ▶ Removable terminal block, easy for replacement and maintenance.
- ▶ No power supply and communication wiring required between the DMC unit's connection (Max. connected units: 32)
- ▶ Ramp to Set-point or soft start function for hot-runner application available.
- ▶ One optional DI (digital input) or AI (analog input) available.
- ▶ 2-degree PID algorithm.
- ▶ Easy to set up without power supply wiring by connecting to PC with the URC-1020 cable.



Specification	
Input	Thermocouple (T/C): J, K, T, E, B, R, S, N, C (ITS-90)
	Pt100: Excitation 180uA. 2 or 3 wire connection (ITS-90 $\alpha=0.00385$)
	mA: -24~24mA
	mV: -60~60mV
	Voltage: -10~10V
Sampling Rate	100mS
Control Mode	Proportional Band: 0.0~300.0% (0.0 %=On/Off mode)
	Integral Time: 0~3000 sec
	Derivative Time: 0~1000 sec
	Hysteresis: 0.0~999.9 or 0~9999
	Cycle Time: 1~60 sec
Control Output	Relay contact output: 3A/240 VAC (Resistive load)
	DC 24V Pulsed Voltage for Driving SSR: (Max. load current 20mA)
	Current Output: 4~20mA; (Resistive 600 Ω max.)
	Continuous Voltage Output: 0~10V (Resistive 500 Ω min.)
Alarm Output	Relay Contact Output: 5A/240 VAC (Resistive load)
General Specifications	Power supply: 24Vdc (19~32 Vdc)
	Power consumption: 4.8VA Max.
	Common mode rejection ratio: >80dB
	Operating temperature: 0 to 55°C
	Humidity: 0 to 85% RH (Non-Condense Condition)
	Electromagnetic compatibility (EMC): EN 61000-6-2, EN 61000-6-4
	Housing material: ABS plastic. UL 94V0
Digital Communication	Weight: 100g (3.5 Oz)
	EIA RS-485 with ModBus RTU mode Protocol
	Baudrate: 9.6k, 19.2k, 38.4k, 57.6k, 115.2k bps
	1 start bit, 8 data bits, none/even/odd parity, 1 or 2 stop bits

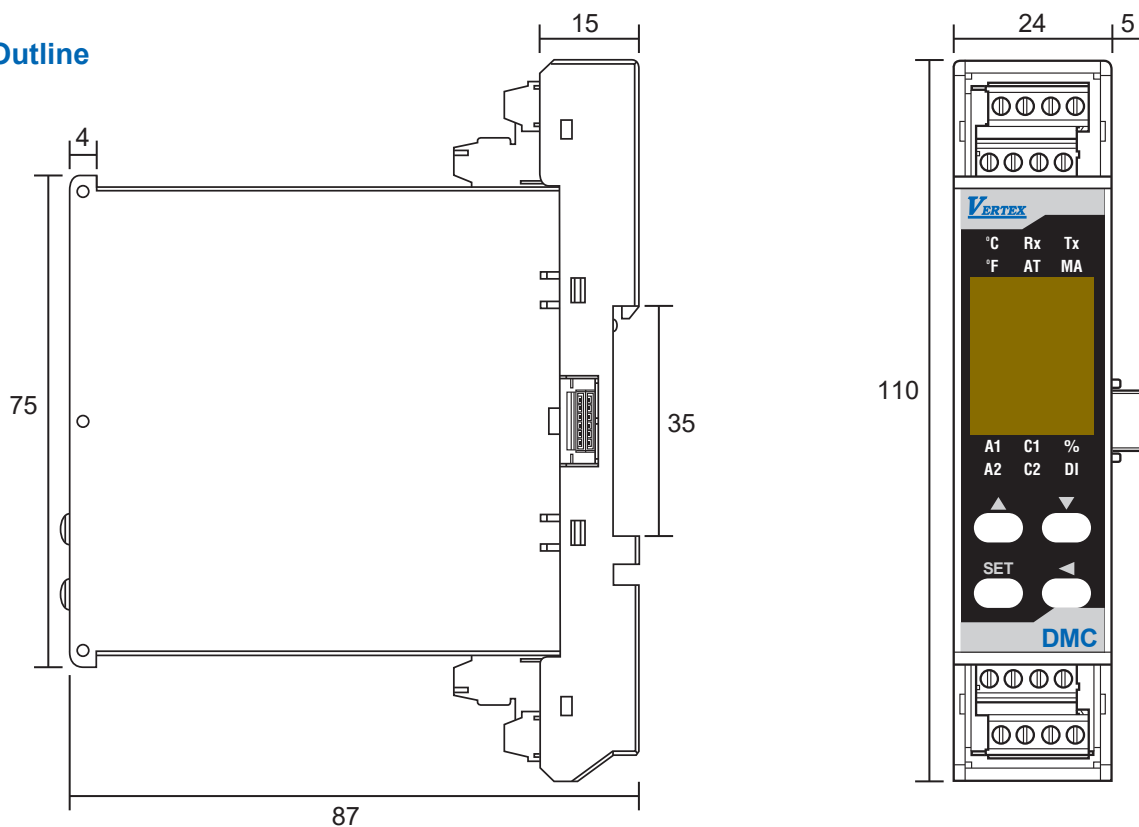
Measuring Range & Accuracy		
Input signal	Maximum Range	Accuracy
Thermocouple J	-50 to 1000°C (-58 to 1832°F)	±1°C
Thermocouple K	-50 to 1370°C (-58 to 2498°F)	±1°C
Thermocouple T	-270 to 400°C (-454 to 752°F)	±1°C
Thermocouple E	-50 to 750°C (-58 to 1382°F)	±1°C
Thermocouple B	0 to 1800°C (32 to 3272°F)	±2°C (Note1)
Thermocouple R	-50 to 1750°C (-58 to 3182°F)	±2°C
Thermocouple S	-50 to 1750°C (-58 to 3182°F)	±2°C
Thermocouple N	-50 to 1300°C (-58 to 2372°F)	±2°C
Thermocouple C	-50 to 1800°C (-58 to 3272°F)	±2°C
Pt100 (DIN)	-200 to 850°C (-328 to 1562°F)	±0.2°C
Pt100 (JIS)	-200 to 600°C (-328 to 1112°F)	±0.2°C
mA	-24mA~24mA	±4 μ A
mV	-60mV~60mV	±0.01mV
Voltage	-10V~10V	±2mV

Note 1 : Accuracy is not guaranteed between 0 and 400°C (32 and 752°F) for type B.

Alarm Function	
Alarm Function	No alarm
	Process high alarm
	Process low alarm
	Deviation high alarm
	Deviation low alarm
	Inside deviation band alarm
	Outside deviation band alarm
Alarm Mode	Normal mode
	Standby mode
	Latch mode
	Standby and Latch mode

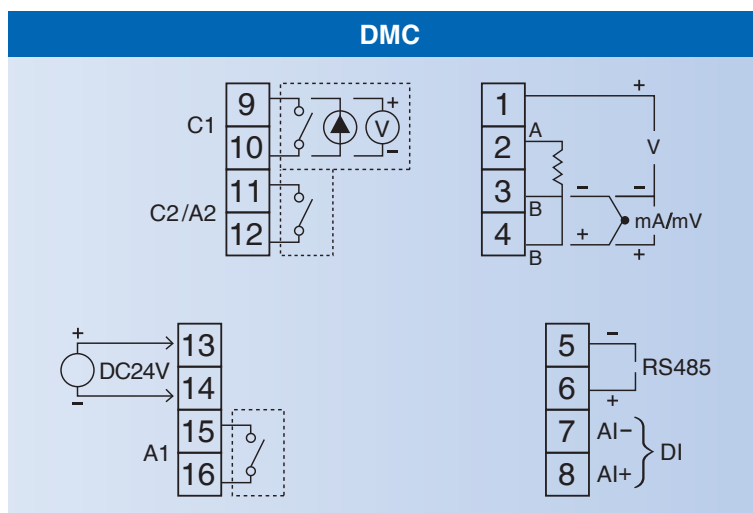
Dimension

• Outline



(Unit / mm)

Wiring Diagram



Ordering Information

DMC - D -

Input Type :

Input Type	Code
Thermocouple	T
PT100	D
0~50 mV	L
0~10 V	V
4~ 20 mA	M

Output 1 :

Output	Code
Relay	R
Pulse Voltage to drive SSR	P
4 ~ 20 mA	M
0 ~ 10 V	V
Other specified by customer	O

Aux Input :

Input Type	Code
Analog input	A
Digit input	D
None	N