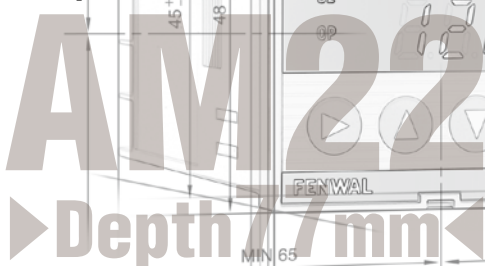




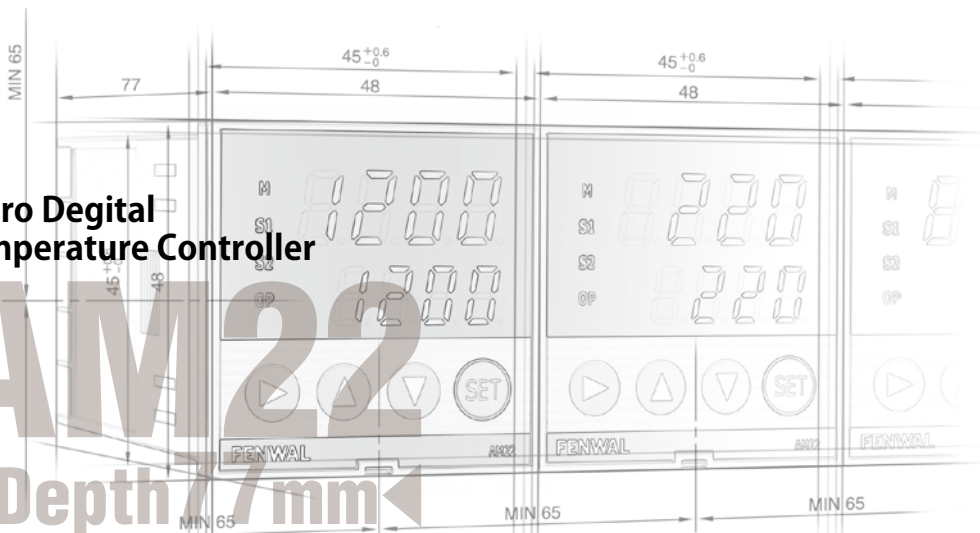
*New Fenwal Temperature Controller
AM Azumino Model is produced
at Fenwal Azumino Factory
surrounded by beautiful nature.
Fenwal Temperature controller is
Japanese made Products*



**Micro Digital
Temperature Controller**



RoHS Pb Free Model





Micro Digital Temperature Controller AZUMINO MODEL

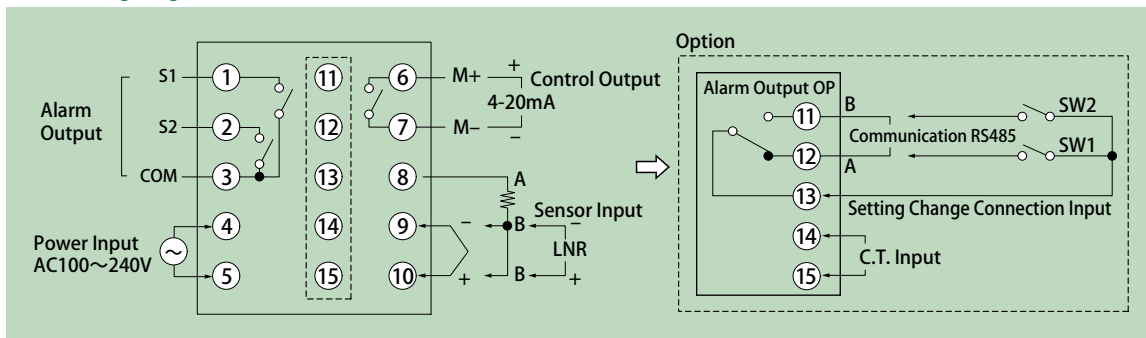


Environment Friendly
RoHS Pb Free Model
Phase III

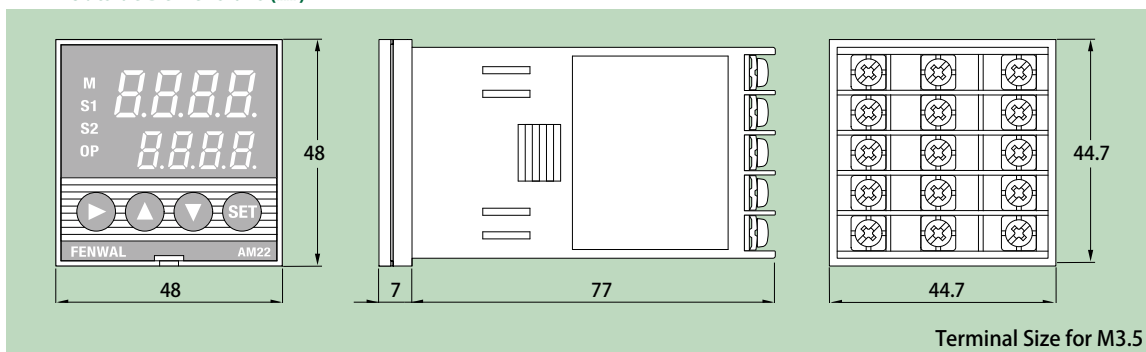
AM22 Features

- 1 **1/16 Size, Depth 77mm with variety of functions are available**
Third Alarm, RS485 Communication, CT Input, SV Shift etc.
- 2 **Enable to customize Preset setting before shipment**
Customize difficult setting before shipment so that AM can be used at ease.
- 3 **Water Proof front panel IP64**
Enable to locate AM anywhere in the Manufacturing Field or R&D Field.

AM22 Wiring Diagram



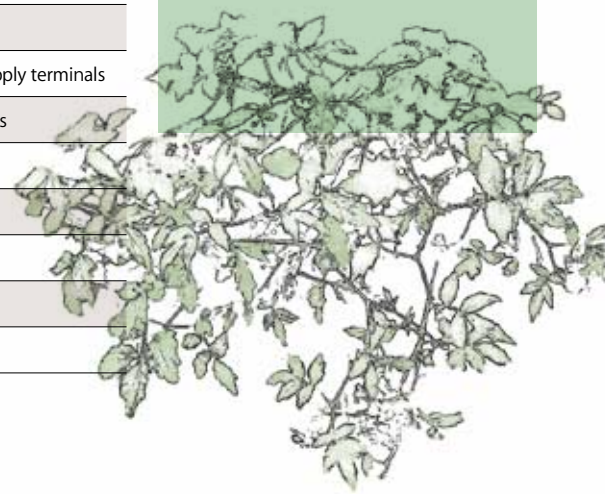
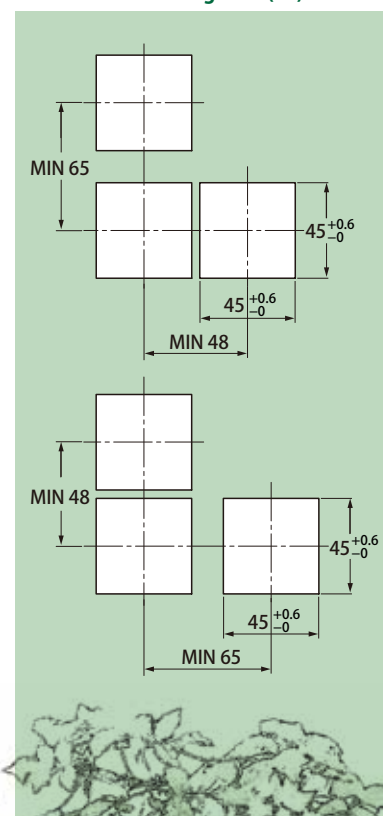
AM22 Outside Dimensions (mm)



*Aimed at Azumino best High Performance, Reliability
and Environment Friendly Products.*

SPECIFICATIONS	
Accuracy Under Surrounding Temperature 25±5°C	Thermocouple :K, J, E, T, R, S (Set Value±/0.3 or ±/2°C, whichever is greater) ±/1 Digit Thermocouple :B (Set Value±/0.3 or ±/3°C, whichever is greater) ±/1 Digit RTD : (Set Value±/0.3 or ±/0.8°C, whichever is greater) ±/1 Digit Voltage·Current : (±/0.3% of Scalling Width or ±/1 Digit, whichever is greater) ±/1 Digit
Input	Thermocouple :K, J, E, T, R, S(JIS, IEC, DIN Standard) B RTD :Pt100Ω (JIS, IEC, DIN Standard), JPt100Ω(Old Ⓢ) Linear Input :DC1~5V, DC4~20mA
Output	Relay Connection Output: 1a Connection (2A/250VAC, 2A/30VDC, COSΦ=1) SSR Drive Voltage :DC12V (Standard Value) Load Resistance 300Ω or more Current Output :4~20mA Load Resistance not more than 400Ω 740 (Standard Value) Resolution
Control System	PID Auto tuning, On/Off Control Proportional Band (PB) = 0~200% of Temperature range, Integral Time (I) = 0~3999 Sec Derivative Time (D) = 0~3999 Sec Proportional Time (PT) = 0.5~64 Sec Anti Reset Windup (ARW) = PB 1~100% of PB On/Off Sensitivity (DIF) = 0.1~99.9°C or 1~99°C
Sampling Time	500ms
Temperature Range	K: -100~1200°C (-148~2192°F) B: 0~1800°C (32~3272°F) *
	E: -200~1000°C (-328~1832°F) S: 0~1600°C (32~2912°F) *
*Accuracy is out of range when R and S are lower than 99°C (210°F) or B is lower than 499°C (930°F)	J: -100~800°C (-148~1472°F) C: -200~500°C (-328~932°F) -199.9~500.0°C (-199.9~932.0°F)
	T: -150~300°C (-238~572°F)
	R: 0~1600°C (32~2912°F) * G: -200~850°C (-328~1562°F) -199.9~850.0°C (-199.9~1562.0°F)
Alarm Function	Max 3 point (1a×2 point, 1c×1 point) 32 type temperature alarm Choose from Sensor/Heater Abnormal Alarm (Heater Current Display Function included)
Communication Function	Compatible with RS-485 signal format
EEPROM	1 million times/cell rewritable
Voltage Power Supply	Free Power AC100~240V -15%, +10% 50/60Hz
Operating Temperature	-10~60°C (Assuming no dew drop condensation)
Storage Temperature	-20~70°C (Assuming no dew drop condensation)
Operating Humidity	RH 35~85% (Assuming no dew drop condensation)
Power Consumption	not more than 12VA
Dielectric Resistance	not less than 100MΩ, D C 500V, Between Output relay terminals and power supply terminals
High Potencial Rating	A C 2300V for 1 Min, Between Output relay terminals and power supply terminals
Resistance to vibration	10~55Hz, All Amplitude 0.3mm Each X, Y, Z Direction for 1 hour
Shock Proof	5 times 196 m/s ² (20G) to X, Y, Z each direction
Weight	Approximate 200g
Standard	Safety: EN61010-1 EMC: EN61326
Structure/Material	Water Proof Front Panel IP64 / Case : ABS (UL94V-2)

AM22 Panel Cut Diagrams (mm)



Structure of Model Numbers

AM 22 L — a b c	KRZ — a b c	NNN — 001 a b c - d
<p>a Series Numbers</p> <p>b DIN Size 22 : 48 × 48</p> <p>c Remote / Local* R : With Communication Function L : Without Communication Function</p>	<p>a Sensor Input K : Thermocouple K (Chromel-Alumel) J : Thermocouple J (Iron-Constantan) E : Thermocouple E (Chromel-Constantan) T : Thermocouple T (Copper-Constantan) R : Thermocouple R (Platinum 13% Rhodium-Platinum) S : Thermocouple S (Platinum 10% Rhodium-Platinum) B : Thermocouple B (Platinum 30% Rhodium-Platinum 6% Rhodium) C : PT100 Ω Old JIS RTD G : PT100 Ω New JIS RTD (DIN) A : Current Input 4 ~ 20 mA V : Voltage Input 1 ~ 5 V N : Nickel RTD</p> <p>b Output Mode R : Relay Connection Output B : SSR Voltage Output Drive 12V I : Current Output (4 ~ 20 mA)</p> <p>c Input Voltage Z : AC100 ~ 240V</p>	<p>a Numbers of Alarm N : No Alarm 1 : 1 Alarm 2 : 2 Alarm 3 : 3 Alarm*</p> <p>b Option Function N : No Option C : Setting Change Connection Input * D : Current Trans (C.T.) Input G : Setting Change Connection Input + Current Trans (C.T.) Input*</p> <p>c Standard N : No Standard E : CE</p> <p>d Preset Numbers 001 : STD</p>

*Communication Function (R), Third Alarm and Connection Input Setting Change Function are not available to choose at same time.

Temperature Alarm Table

Code Number		Alarm Mode	Initial Reset	Relay Operation
Without Latch	With Latch			
00	00	No Alarm	—	—
01	02	Upper/Lower Band, Travel type	Without	Relay ON LA SV UA
03	04		With	LA SV UA
05	06		Without	LA SV UA
07	08		With	LA SV UA
09	10	Upper/Lower Band, independent type	Without	LA UA
11	12		With	LA UA
13	14		Without	LA UA
15	16		With	LA UA
17	18	One point Alarm, travel type	Without	SV UA
19	20		With	SV UA
21	22		Without	LA SV
23	24		With	LA SV
2 5	2 6	One point Alarm, independent type	Without	UA
2 7	2 8		With	UA
2 9	3 0		Without	LA
3 1	3 2		With	LA

Abnormal Alarm

Code	0	1	2	3	4	5	6	7	
Heater Disconnection	×	×	×	×	○	○	○	○	○ : With Alarm (Without latch) × : Without Alarm
Output Shortage	×	×	○	○	×	×	○	○	
Sensor Disconnection	×	○	×	○	×	○	×	○	

Panel Installation Parts

Horizontal Connection Position



Vertical Connection Position (Rotate 90 degree from Horizontal Position)



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