

Challenge and Innovation

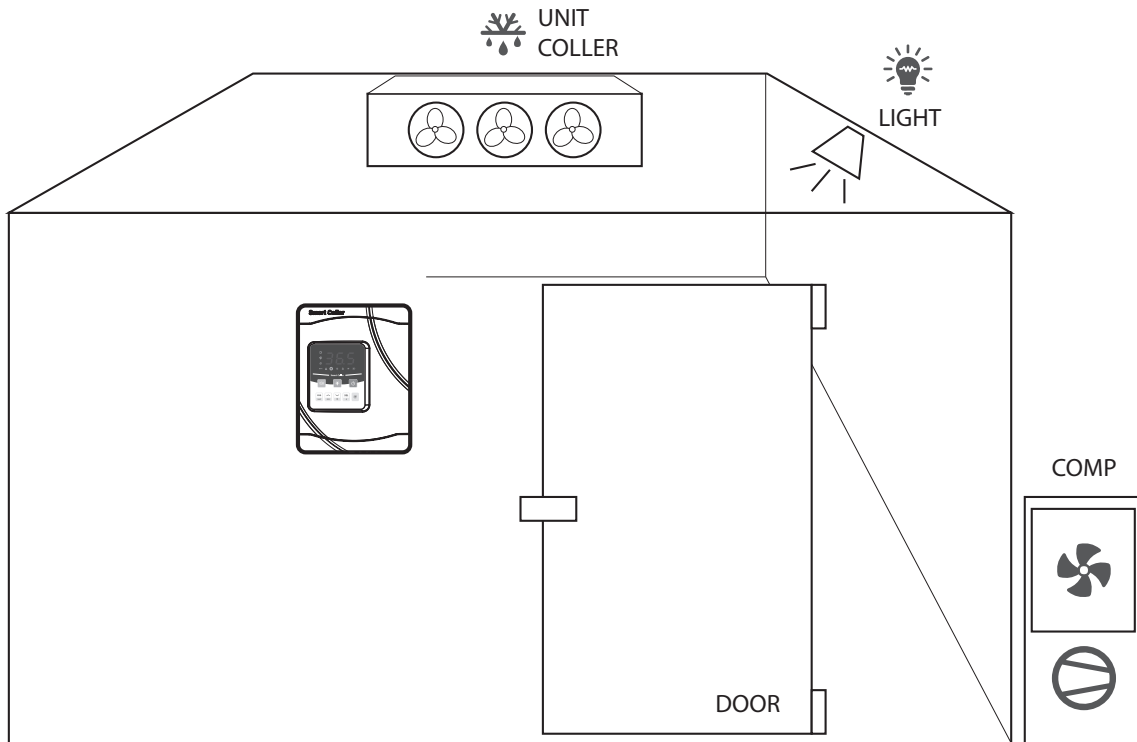
DOTECH
SENSING & CONTROL



Smart temperature controller for low temperature / refrigeration / frozen cellar

SMART CELLAR

- Effective control parameters
- Fully configurable smart defrost control system
- User-centered design
- Variety of input and output control and high extendability



Can be applied to the low temperature cellar / refrigeration cellar / frozen cellar and agriculture and fisher production and distribution

Various Models for Customers' Needs

Various models are ready with many options and customers can select the models on their demands(number and capacity of relays, network communication, price, and etc.)

Aux Relay for Various Outputs

An auxiliary relay is versatile and can be used for control in many applications (light, defrost, alarm, fan, drain, 2 step in compressor, and etc.)

Digital Input for Event(Status) Signals

With a digital auxiliary input, users can check the events or status such as alarm, door switch, curtain switch, defrost syn, and etc.

Built-In Buzzer

A buzzer is built in and users can check the status without an additional buzzer.

Powerful Defrost

Smart Cellar have really powerful defrost functions including natural, heater, and hot gas defrost. Defrost detection logic for energy cost saving is embedded.

Communication(MOBBUS)

If an RS485 communication module is installed, it can be easily monitored remotely by PC.



Compressor control

Can be checked the compressor cumulative operation time and the number of operation

Can configure the stop, operation, delay time , operation scheduling

Fan Control

Fan operation temperature setting and stop delay time setting

Defrost control

Configure night operation time for defrost , defrost cycle setting. defrost by evaporation temperature, defrost for hot gas

Forced cooling

Forced cooling output by the user

Schedule operation

Operating time control in 24-hour,defrost control setting 8 times

Temperature Sensor

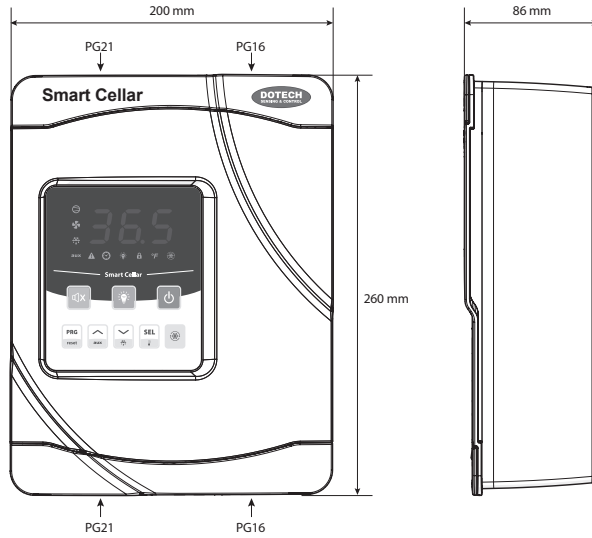
Temperature sensor input up to 5 (internal temperature, defrost return temperature, 3 of auxiliary temperature sensors)

External Output

Two AUX output function

Digital Input

2 temperature sensors + 3 digital input is available



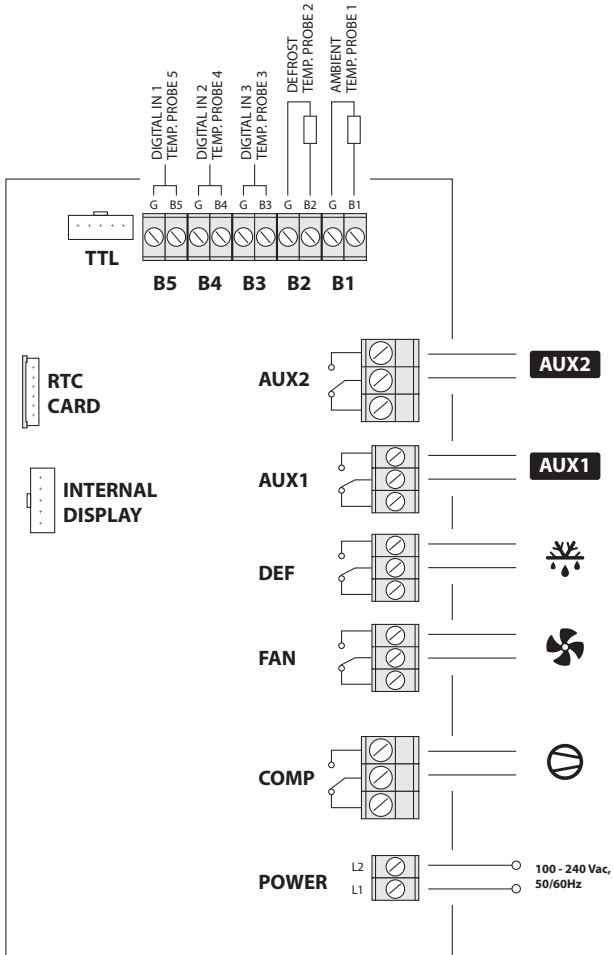
Specifications

	MX32S-16P00	MX32SD-30P00	MX32SA-16P00	MX32SA-30P00	MX32SR-16P00	MX32SR-30P00	
Dimensions	200(W) X 260(H) X 86(D) mm						
Power supply	100 - 240Vac, 50/60Hz						
Power consumption	MAX 12VA						
Display	FND,LED						
Wiring	Screw terminal block (AWG No. 12~28)						
Output	Compressor	16A	30A	16A	30A	16A	30A
	Evaporator fan	-	-	-	-	10A	10A
	Defrost	-	16A	-	-	16A	16A
	Auxiliary 1	-	-	10A	10A	10A	10A
	Auxiliary 2	-	-	16A	30A	16A	30A
Input	Storage Temperature	●	●	●	●	●	●
	Defrost temperature	●	●	●	●	●	●
	Digital 3 / Temperature	●	●	●	●	●	●
	Digital 4 / Temperature	●	●	●	●	●	●
	Digital 5 / Temperature	●	●	●	●	●	●
Function	Buzzer	●	●	●	●	●	●
	Programming Key	●	●	●	●	●	●
	Real time clock	-	-	-	-	●	●
Communication	RS485 (Modbus RTU)						
IP rating	IP65						
Operation	Temperature -10 ~ 50 °C / Humidity less than 90%						
Storage	Temperature -20 ~ 60 °C / Humidity less than 90%						

Accessories

Temperature Sensor	DPR-TH01	Type : NTC 5KΩ at 25°C Range : -50 ~ 105°C Accuracy : ±0.3°C at 25°C
	AX7185	TTL to RS485 Converter
Communication converter	AX7241	RS485 to USB Converter
	AX7243	RS485 to USB Converter(Isolation)

Wiring



Input Terminal

Terminal	Description
B1	Ambient temperature sensor input
B2	Defrost temperature sensor input
B3	Probe 3 temp. sensor input or Digital input 3
B4	Probe 4 temp. sensor input or Digital input 2
B5	Probe 5 temp. sensor input or Digital input 1

Output Terminal

Terminal	Description	
POWER	L1	100–240Vac, 50 / 60 Hz Power input
	L2	
COMP	NO	When signal of Comp is activated (Close)
	C	Common Signal
	NC	When signal of Comp is activated (Open)
FAN	NO	When signal of Fan is activated (Close)
	C	Common Signal
	NC	When signal of Fan is activated (Open)
DEF	NO	When signal of Def is activated (Close)
	C	Common Signal
	NC	When signal of Def is activated (Open)
AUX1	NO	When signal of AUX1 is activated (Close)
	C	Common Signal
	NC	When signal of AUX1 is activated (Open)
AUX2	NO	When signal of AXU2 is activated (Close)
	C	Common Signal
	NC	When signal of AXU2 is activated (Open)

Optional Terminal

Name	Description
TTL	RS485 Modbus RTU signal output through connecting with AX7185
RTC CARD	Connect when using real time clock
INTERNAL DISPLAY	Connection terminal for internal display module