

Application Specific

VA-Clave



Features

- RTD : Pt-100 Temperature Input
- Input Signal Conditioning (Digital Filter & Zero Offset)
- F0 calculation at the end of Sterilization
- Drying facility to avoid high outrush of pressure
- Sterilization Timer with Guaranteed Soak Time
- High Temperature Safety Alarm
- Automatic Cycle Abortion at High Temperature Limit
- Computed Saturated Steam Pressure Display
- Independent Air Purging and Sterilization Setpoint
- Independent Outputs for Air Outlet & Steam Control
- Front / Remote Sterilization Cycle Start Command
- Optional Serial Communication Port
- Water Level Switch Input
- Universal supply voltage (90 to 270 VAC)
- 24 VDC Available on Request

Display Specification

Digits : Dual 4 Digits
7 Segment LED Display

LED Indication : HTR - Heater Output Status
P/E - Purge / Exhaust Status
ALM - Alarm Output Status
LWL - Low Water Level Status
AT - Auto Tune Status
ST - Soak Timer Running Status
SP - LDSP will show SP1
PR - LDSP will show Pressure
ST, SP, PR - All Off :
LDSP will show Input 2 value

Height	Model	VA-Clave
	PV (White)	0.80"
	SV (Green)	0.56"

Input Specification

Input 1 : RTD - Pt-100
Resolution (Input 1) : Pt-100 - 0.1°C
Input 2 : 4-20 mA, 0-10 V
Resolution (Input 2) : 0 / 0.1 / 0.01 / 0.001
Accuracy : 0.3% FS
Temperature Unit : °C
Sampling Rate : 250msec

Output Specification

Heater Output : Relay / SSR Drive (Selectable)
Purge / Exhaust Output : Relay / SSR Drive (Factory Set)
Alarm Output : Relay / SSR Drive (Factory Set)
Relay : 5A @ 250VAC / 30VDC
SSR Drive : 12 VDC @ 30mA

Functional Specification

Hold Back Strategy : Up / Down / Both
Power Fail Recovery : Abort / Continuous / Repeat
Pressure Unit : PSI / Kgcm
Serial Communication : RS-485 / Half Duplex
Protocol : Modbus RTU
Excitation Voltage : 5V / 10V / 12V / 24V
(Jumper Selectable)

Auxiliary Supply Specification

Supply Voltage : 90 - 270 VAC
(24 VDC Available on Request)

Environmental Specification

Temperature : Operating - 0 to 50°C
Storage : -20° to 75°C
Humidity : 95% RH (Non-condensing)

General Description

Model	VA-Clave
Weight (Gms)	300

Certification

None



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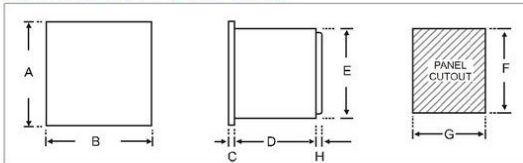
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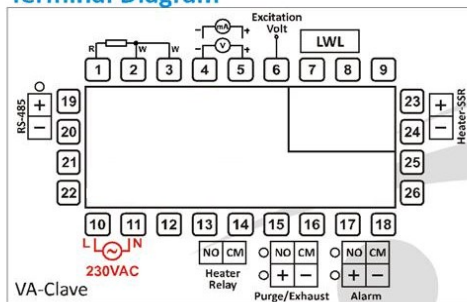
VA-Clave

Mechanical Dimensions



Dim Model	A	B	C	D	E	F	G	H
VA-Clave	96	96	10	65	89	92	92	9

Terminal Diagram



Order Code : VA-Clave

Size	O/P1 - Heater	O/P2 - P/E	O/P3 - Alarm	Communication	Excitation	Supply
9 (96X96X65)	0 (None)	0 (None)	0 (None)	0 (None)	05 (05 VDC)	A (90 ~ 270 VAC)
	1 (Relay)	1 (Relay)	1 (Relay)	B (RS-485)	10 (10 VDC)	D (24 VDC)
	2 (SSR)	2 (SSR)	2 (SSR)		12 (12 VDC)	
					24 (24 VDC)	

Example : VA-Clave-111-B24A

Size	O/P1 - Heater	O/P2 - P/E	O/P3 - Alarm	Communication	Excitation	Supply
99	1	1	1	B	24	A
9 (96X96X65)	1 (Relay)	1 (Relay)	1 (Relay)	B (RS-485)	24 (24 VDC)	A (90 ~ 270 VAC)

Temperature Input

Sensor Input	Range	Resolution	Accuracy
Pt-100(RTD.1)	0.0 ~ 150.0 °C	0.1 °C	± 0.3 °C

Pressure Input

Sensor Input	Range	Resolution
0 ~ 10 V	-1999 ~ 9999	0 / 0.1 / 0.01 / 0.001
4 ~ 20 mA	-1999 ~ 9999	0 / 0.1 / 0.01 / 0.001



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AUTO CLAVE CONTROLLER LCD DISPLAY MODEL SELECTION GUIDE

Model	Input	Digital Input	Display	Size
AC - 44 VA - CLAVE	RTD : Pt-100 (0.1 °C)	WATER LEVEL	4-Digit Dual Row	48 x 48 x 87 mm 96 x 96 x 65 mm

MODEL CODE	AC - 44	X	X	X	X	-	X
	VA - CLAVE	X	X	X	X	X	X

HEATER OUTPUT	RELAY	1			
	SSR	2			

PURGE / EXHAUST OUTPUT	NONE	0		
	RELAY	1		
	SSR	2		

ALARM OUTPUT	NONE	0		
	RELAY	1		
	SSR	2		

COMMUNICATION	NONE	0		
	RS-485 MODBUS	B		

PRESSURE INPUT WITH EXCITATION	NONE	0		
	4-20 mA (Loop Powered)	Y		

POWER	90 to 270 VAC	A		
	24 VDC	D		

Ordering Example: VA-CLAVE-112-BYA

MODEL	HEATER OUTPUT	PURGE / EXHAUST OUTPUT	ALARM OUTPUT	COMMUNICATION	PRESSURE INPUT WITH EXCITATION	POWER
VA-CLAVE	1	1	2	B	Y	A
96 x 96 x 65	RELAY	RELAY	SSR	RS-485 MODBUS	4-20 mA (Loop Powered)	90 to 270 VAC

Ordering Example: AC-44-211-BA

MODEL	HEATER OUTPUT	PURGE / EXHAUST OUTPUT	ALARM OUTPUT	COMMUNICATION	POWER
AC-44	2	1	1	B	A
48 x 48 x 87	SSR	RELAY	RELAY	RS-485 MODBUS	90 to 270 VAC



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AUTO CLAVE CONTROLLER LED DISPLAY MODEL SELECTION GUIDE

Model	Input	Digital Input	Display	Size
FAAC	RTD : Pt-100 (0.1 °C)	WATER LEVEL	16X2 Character LCD	96 x 96 x 65 mm
FAAC+	Temp. Input : Pt-100 (0.1 °C) Pressure Input : 4-20mA			

MODEL CODE	FAAC	X	X	X	-	-	X
	FAAC+	X	X	X	X	X	X

HEATER OUTPUT	RELAY	1			
	SSR	2			

PURGE / EXHAUST OUTPUT	RELAY		1		
	SSR		2		

ALARM OUTPUT	RELAY			1	
	SSR			2	

COMMUNICATION	NONE				0
	RS-485 MODBUS				B

PRESSURE INPUT WITH EXCITATION	NONE				0
	4-20 mA (Loop Powered)				Y

POWER	90 to 270 VAC				A
	24 VDC				D

Ordering Example: FAAC+-111-BYA

MODEL	HEATER OUTPUT	PURGE / EXHAUST OUTPUT	ALARM OUTPUT	COMMUNICATION	PRESSURE INPUT WITH EXCITATION	POWER
FAAC+	1	1	1	B	Y	A
96 x 96 x 65	RELAY	RELAY	RELAY	RS-485 MODBUS	4-20 mA (Loop Powered)	90 to 270 VAC

Ordering Example: FAAC-111-A

MODEL	HEATER OUTPUT	PURGE / EXHAUST OUTPUT	ALARM OUTPUT	POWER
FAAC	1	1	1	A
96 x 96 x 65	RELAY	RELAY	RELAY	90 to 270 VAC



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