

KM-KR Enology

Make a SPA for your wine



KUBE FOR WINE

DISPLAY COLOUR SHOWS THE ACTION

RED = HEAT, GREEN = COOL, AMBER = HEAT/COOL

KM1E – KR1E – ENOLOGY VERSIONS

- Wine controller in DIN 78 x 35 mm or 48 x 48 mm (depth < 70 mm) case;
- Input PT100, PTC or mA;
- 3 Relay outputs;
- Control action selectable by front keyboard or digital input;
- The colour of the display shows the action selected;
- ON/Stand-By of the Process with *St.BY* label;
- High/Low Alarms addressed to a dedicated output (OUT1);
- Remote control through 2 Digital Inputs;
- **evoTools** – Protection of the configuration making back-up on the electronic A01 key or on a PC;
- Selective protection of the parameters;
- **evoTools** – ModBus or Ethernet communications (optional);
- **evoGreen** – For energy saving.
- Parameters sequence fully customizable;
- Removable and non-removable screw or spring terminal blocks.

FIELDS OF APPLICATION

- KM1E is designed to meet the specific needs of the wine industry, for the heat treatment of wine and the different needs of the cellars;
- KM1E is designed for precise temperature control during vinification, which requires a cooling step during fermentation, but also a heating step necessary to obtain certain organoleptic characteristics;
- KM1E is factory-configured for standard wine applications (input for PT100, heating or cooling control, minimum and maximum alarm);
- There is a simple procedure based on some parameters used to adapt this basic configuration to your needs, or to return to the factory configuration.

3 COLOUR DISPLAY

The colour of the main display shows the control action selected. By a simple action (pushing a key for 3 seconds) you can select the right control for current "phase".



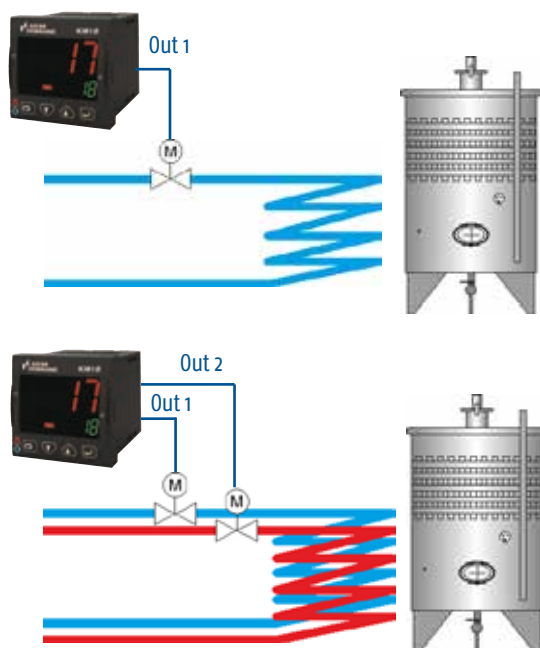
Two sequences are programmable:

- Heat, cool and Heat&Cool
- Heat or cool only

In addition you can use 2 different set points and in particular Sp1 for Heat action and Sp2 for cooling one (automatically selected setting the desired action) or to use the same set point for all actions.

ALL TANKS CAN BE MANAGED

The same controller can work with tanks equipped with one or two heat exchanger circuits.



CUSTOMIZED PARAMETER SEQUENCE

Providing a user-defined operator interface has been, until now, a privilege of "custom" solutions. The KUBE Line allows to customize operator parameters making the instrument safe and easy to be used.

eVogreen ENERGY SAVING

This user selectable function allows the customer to reduce energy consumption while indicating the presence of alarms and process deviations, even from a great distance.

Once the function is activated, the display acts as follows:

- If no button is pressed within the user defined time, the display turns off and 4 display segments remain lit and alternate to report that the system is in operation;
- If an alarm is detected or a button is pressed, the display turns on again immediately.



Normal operation



ACCESSORIES

A01 Programming key - An electronic key with memory, can be connected directly to a special connector of the instrument. The key allows to perform various functions, such as:

- Storing an instrument configuration and transferring it to another one;
- Fast and simple instrument configuration without having to use a PC;
- Communications with a PC also if the instrument is not equipped with the optional RS485 port.



AET1 Ethernet Gateway - The AET1 Ethernet Gateway allows to connect to an Ethernet network a controller equipped with a TTL port (it is not mandatory that the controller is equipped with the optional RS485 ModBus communications port).



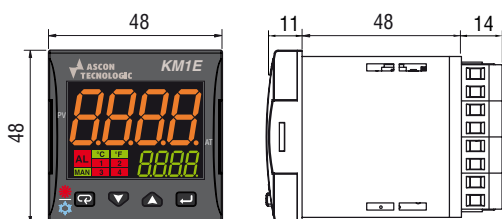


SPECIFICATIONS

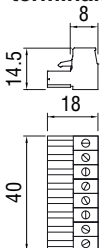
DISPLAY	
Dual LED	Main display: 4 digit h 10.9 mm (KR1E) or 15.5 (KM1E) three colours red, green and amber Secondary display: 4 digit h 6 mm (KR1E), 7.6 mm (KM1E) green colour
INPUTS	
Universal Input	RTD: Pt100 3 wires (-200... +850°C/-328... +1562°F); Thermistors: PTC KTY81-121 (-50... +150°C/-58... +302°F); Linear signals: 0/4... 20mA
Measurement accuracy	±0.5% span ±1 digit, (±1% span ±1 digit for T/c type S)
Digital inputs	1 contact input + 1 (available when I/O 4 = DI2) programmable as voltage (24 VDC) or contact input
OUTPUTS	
Up to 3	OUT1: Relay SPST-NO 4A/240 Vac (SPDT for KR1E) OUT2 and OUT3: Relay SPST-NO 2A/240 Vac
FUNCTIONAL	
Control	PID single or double action, On/Off, On/Off with Neutral Zone. Autotune and <i>evoTune</i> . Overshoot control
Alarms	3 alarms configurable as absolute, deviation, band
Set Point	2 set Points selectable automatically or manually
Serial communications	TTL (standard) + RS485 (optional), protocol: MODBUS RTU
Communications speed	1200... 38400 baud selectable (8 bit + 1 stop bit, no parity)
Work hours/days counter	With 2 simultaneous functions: cumulative non-erasable and resettable with alarm
Power calculation	Instant power, hourly consumption, total consumption during program running
Evogreen	Time based Display switch-off, selectable
GENERAL	
Power supply	24 Vac/dc ±10%, 100... 240 Vac/dc (-15... +10%), 50/60 Hz, power consumption 7 VA max.
Temperature	Operating: 0... 50°C (32... 122°F); Storage: -20... +70°C (-4... +158°F);
Relative humidity	20... 95 RH% with no condensation
Conformity	EN 61010-1, EN 61326
Housing	Self-extinguishing plastic UL 94 v0
Mounting	Front panel
Dimensions	KM1E = 48 x 48 x 62 mm (W x H x P) KR1E = 35 x 78 x 64 mm (W x H x P)
Weight	KM1E: About 120 g ,KR1E: About 140 g
Terminals	16 terminals (KM1E) or 24 tyerminals (KR1E) for cables from 2.5 mm ² (AWG22... AWG14)
Protection degree	IP 65 panel mounted with gasket (gasket + screw bracket for KR1E)(IP20 for screw terminals) In conformity with En 60070-1 (internal use only)
Conformity	EN 61010-1, EN 61326, UL

Dimensions (mm)

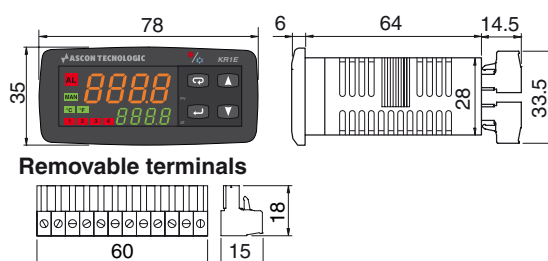
Instrument with non removable terminals



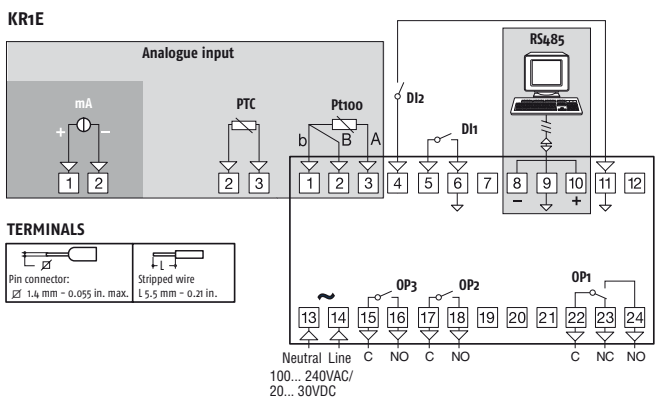
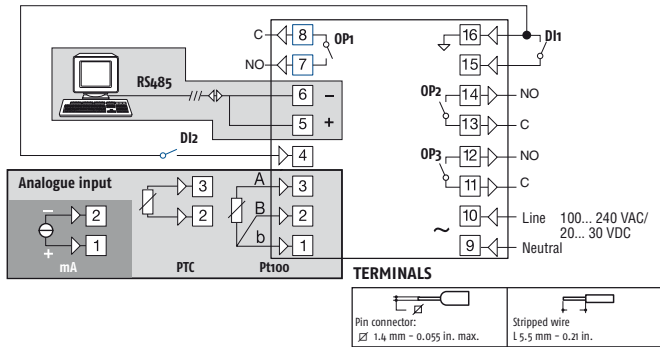
Removable terminals



Instrument with non removable terminals



Electrical connections



Order code

Model	- = Controller 48 x 48 mm
KM1E	- = Controller 35 x 78 mm
Power supply	
H	= 100... 240 VAC
L	= 24 VAC/DC
Analogue input + digital input Dh (standard)	
D	= Pt100, mA
P	= PTC, mA
Output 1	
R	= KM1E: Relay SPST-NO 4 A (resistive load), KR1E: SPDT 4 A (resistive load)
Output 2	
-	= Absent
R	= Relay SPST-NO 2 A (resistive load)
Output 3	
-	= Absent
R	= Relay SPST-NO 2 A (resistive load) selectable when OP2 is present
Digital Input 2	
D	= Digital Input Di2
Serial communication	
-	= TTL Modbus
S	= RS485 Modbus + TTL Modbus
Connection type	
-	= Standard (non-removable screw terminal block)
E	= With removable screw terminal block
M	= With removable spring terminal block
N	= With removable terminal block (fixed part only)

Ascon Tecnologic s.r.l.
viale Indipendenza, 56 · 27029 Vigevano (PV) Italy
tel +39 0381 69 871 · fax +39 0381 69 87 30

info@ascontecnologic.com
www.ascontecnologic.com

Ascon Tecnologic France
BP 76 · 77202 - Marne La Vallee Cedex 1
tel +33 1 64 30 62 62 · fax +33 1 64 30 84 98
info@ascontecnologic.fr
www.ascontecnologic.fr

Ascon Polska Sp. z o.o.
KOCHCICE ul. Kochanowicka 43
42-713 Kochanowice
tel +48 34 35 33 619 · fax +48 34 35 33 884
info@ascon.pl
www.ascon.pl

Ascon Tecnologic - North America
1111 Brook Park Road
Cleveland, OH 44109
tel. +1 216 485 8350 ext. 229
info@ascontec-na.com
www.ascontecnologic.com/en

Coelmatic Ltda
Rua Clélia 1810 - Lapa
Sao Paulo · SP - CEP 05042-001- Brazil
tel. +55 11 2066-3211 · fax +55 11 3046-8601
info@coel.com.br
www.coelmatic.com.br

Coelmatic SAPI SA de CV
Dr. Pedro Noriega #1099 - Col Terminal
Monterrey, Nuevo León - CEP 64570
tel. +52 81 8104 1012
info@coelmatic.com.mx
www.coelmatic.com.mx

