KM5P

- 3 DYNAMIC COLOUR LED DISPLAY
- 8 PROGRAMS AND 96 SEGMENTS
- "SEGMENT RECOVERY" + "ELAPSED TIME RECOVERY" (RESOLUTION 1 MIN)

evolution

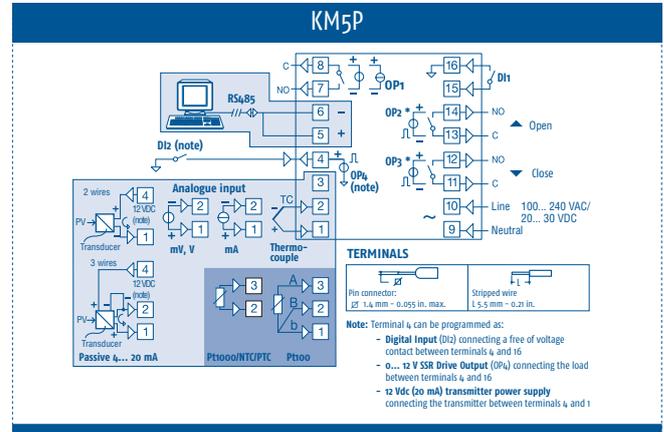## FEATURES

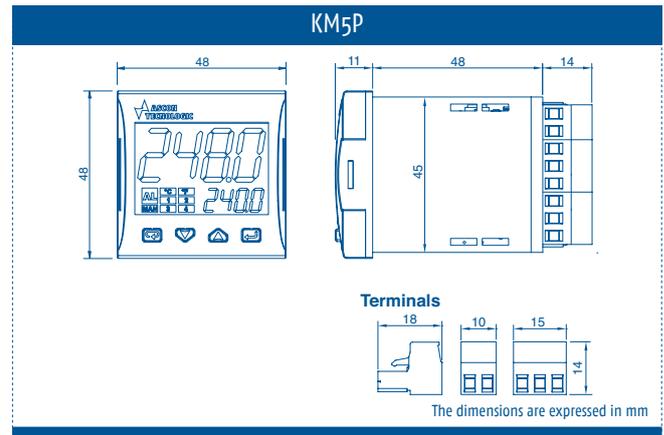| DISPLAY	KM5P
Dual LED	Main display: 4 digit h 15.5 mm. 3 colours: red, green and amber
	Secondary display: 4 green digit, h 7 mm
INPUTS	
Universal	Thermocouples: J (−50... +1000°C/−58... 1832°F), K (−50... +1370°C/−58... 2498°F), S/R (−50... +1760°C/−58...3200°F), T (−70... +400°C/−94... 752°F) Infrared sensors: J or K Thermoresistances: 3 wires Pt 100 and 2 wires Pt 1000 (−200... 850°C/−328... 1562°F) Linear signals: 0/12... 60mV, 0/4... 20mA, 0/1... 5V, 0/2...10V
	Thermocouples: J (−50... +1000°C/−58... 1832°F), K (−50... +1370°C/−58... 2498°F), S/R (−50... +1760°C/−58...3200°F), T (−70... +400°C/−94... 752°F) Infrared sensors: J or K Thermistors: PTC KTY81−121 (−55... +150°C/−67... 302°F), NTC 103 AT2 (−50... +110°C/−58... 230°F) Linear signals: 0/12... 60mV, 0/4... 20mA, 0/1... 5V, 0/2...10V
Accuracy	± 0.5% span ±1 digit, (±1% span ±1 digit for T/c S type)
Digital inputs	1 or 2 according to instrument's part number (the 2nd digital input is alternative to OUT 4)
OUTPUTS	
Up to 4	OUT 1: Relay SPST−NO 4A/240 Vac or voltage to drive SSR 13V max. @ 1mA, 10.5V min. @ 15mA ±10% or analogue galvanically isolated 0/4... 20 mA, 0/2... 10V (optional)
	OUT 2: Relay SPST−NO 2A/240 Vac or voltage to drive SSR 13V max. @ 1mA, 10.5V min. @ 15mA ±10%
	OUT 3: Relay SPST−NO 2A/240 Vac or voltage to drive SSR 13V max. @ 1mA, 110.5V min. @ 15mA ±10%
	OUT 4 programmable: voltage output to drive SSR 13V max. @ 1mA, 10.5V min. @ 22mA ±10% or transmitter supply or 2nd digital input
FUNCTIONAL	
Control	PID single or double action, ON/OFF, ON/OFF with Neutral Zone Autotuning and Selftuning algorithms, Overshoot control
Servomotor control	Available
Alarms	3 alarms programmable as absolute, deviation, band
Set Point	4 programmable Set Points
Signal retransmission	Measuring or Set Point retransmission
Serial communication	TTL (standard) + RS485 (optional), ModBus RTU protocol
Baud rate	1200... 38400 baud
Working hours counters	A cumulative non−erasable counter and a second one resettable with alarm
Wattmeter function	Instantaneous power, time consumption
EVOogreen	Stand−by mode of display, selectable
Programmer (optional)	Up to 12 segments with guaranteed soak
Programs storage (optional)	Up to 8 programs
Program sequence	Possibility to manage sequences up to 4 programmes with different time base (h.min − min.s)
GENERAL	
Power supply	24 Vac/Vdc ± 10%, 100... 240 Vac/Vdc −15%/+ 10% (50/60 Hz)
Power consumption	7 VA max
Dimensions / Weight	48 x 48 mm (1/16 DIN) − depth 63 mm / 125 g
Mounting	Flush in panel in 45 x 45 mm hole
Connections	16 screw terminals 2.5 mm² (AWG22.... AWG14) fix, plug−in or clamp type
Front protection degree	IP 65, mounted on panel with gasket
Operating / storage temperature	0... 50°C (32... 122°F)/−20...+70°C (−4... 158°F)
Operating humidity	20... 95 RH% without condensation
Conformity	EN 61010−1, EN 61326

HOW TO ORDER

To compose the part number, pls. choose one of the option for each variable

KM5P	CODE
POWER SUPPLY	
24 Vac/Vdc	L
100... 240 Vac	H
INPUT	
TC, RTD, mA, V, mV + digital input 1	C
TC, NTC, PTC, mA, V, mV + digital input 1	E
OUT 1	
Relay SPST 4A	R
Vdc for SSR driving	O
0/4... 20 mA, 0/2... 10V galvanically isolated (control and retransmission)	I
OUT 2	
Relay SPST 2A	R
Vdc for SSR driving	O
Relay SPST 2A for Servomotor driving	M
Not available	–
OUT 3	
Relay SPST 2A	R
Vdc for SSR driving	O
Relay SPST 2A for Servomotor driving	M
Not available	–
OUT 4	
Digital input 2 or digital output or transmitter supply	D
RS485	
Available	S
Not available	–
CONNECTION	
Plug-in screw type	E
Plug-in screw type, fix part only	N
Clamp type	M
Fix screw type (standard)	–

(*) To obtain the Servomotor control, OUT2 and OUT3 have to be selected as M.

CONNECTIONS

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TERMINALS

Pin connector: ∅ 1.4 mm – 0.055 in. max.
Stripped wire L 5.5 mm – 0.21 in.

Note: Terminal 4 can be programmed as:
- **Digital Input** (DI2) connecting a free of voltage contact between terminals 4 and 16
- **0... 12 V SSR Drive Output** (OP4) connecting the load between terminals 4 and 16
- **12 Vdc (20 mA) transmitter power supply** connecting the transmitter between terminals 4 and 1

DIMENSIONS

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Terminals

The dimensions are expressed in mm