

Series SPM - 400

PC Programmable Universal Input Monitor



TYPICAL APPLICATIONS:

- Process Indicator
- ON/OFF Control
- Mathematical Manipulation
- Multi-level Alarm



**NO WIRES.
NO JUMPERS.
NO SCREWDRIVERS.
JUST A PCI**

STANDARD FEATURES:

- User selection of all thermocouple types, Pt-100, mV, Potentiometers, mA(4-20mA) all in one unit (SPM-40X).
- Internal voltage supply for excitation of transmitters/transducers (SPM-40X).
- Six or four digit display
- Dual input capability and math manipulation

OPTIONS:

- 3 color 7 segment LED display
- Up to a total of 6 alarm set points with relay outputs and individual parameter settings
- Isolated, scalable analog output in current or voltage mode

The SPM series is Mescon's programmable **Just-PC™ Technology** members and process monitors. The SPM family offers universal input capabilities together with high performance and high resolution. Input, display, scaling, alarm and output parameters are all readily programmable with the **MesConfigurator™** software.



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INPUT CONFIGURATION

SPM-40X

Thermocouple

RTD

DC mV

DC mA

Potentiometers

Resistance

All standard types and most special types using user defined tables and polynomials

2,3 and 4-wire Pt-100, Callandar-Van-Dusen Adaption, custom user defined tables

-120 to 120mV

-25 to 25mA

to 20 K Ω , 3-wire connection

to 400 Ω , std.

SPM-41X

DC mV

DC mA

DC Volts

-300 to 300mV

-50 to 50mA

-10 to 10V

SPM-46X

AC Voltage

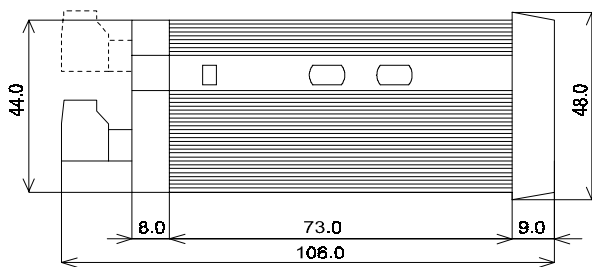
AC Current

15 to 400 Volts, 50/60/400 Hz (protected to 1000V for 1 second)

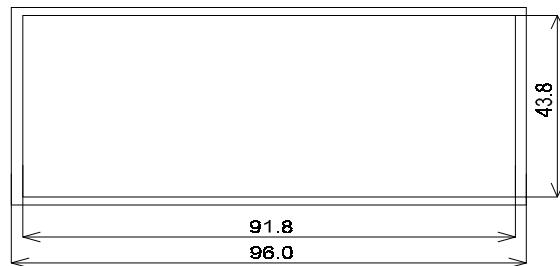
0.5 to 10 Amps, 50/60/400 Hz (protected to 25 Amps for 1 second)

MECHANICAL DRAWING

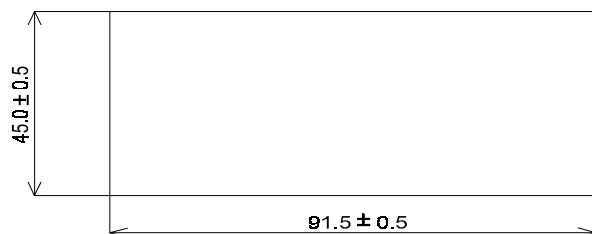
Side view:



Front view:



Recommended panel cut-out:



GENERAL SPECIFICATIONS

Programming	Using PA-400 programming adapter and MesConfigurator™ software
Minimum Range	2mV, limited mostly by input signal quality
Power supply	115V AC or 230V AC or 24V DC +/- 10%
Operating temperature	-20°C to 70°C
Response time	0.3 seconds, to 90% of input step >3 updates per second
Damping factor	Programmable 0 to 64 seconds, to 120% of input range
Long term stability	Better than 0.05% of full span per 12 months
Isolation (Input/Output/Supply)	2000V DC or peak AC
RFI protection	Better than 0.5% effect of span, 20-1000MHz and at field strength of 20V/m. CE marked 4, 5 or digits, red LED, 0.56" high

PERFORMANCE SPECIFICATIONS

Linearity	Better than 0.005% of span (mV input)
Sensor linearization (RTDs)	<0.1°C for all sensors over full input range
(Thermocouples)	<0.03°C over 100°C input span
	<0.2°C for all sensors over full input range
	<0.1°C over 200°C input span
Cold Junction Compensation	Automatic. Thermocouple specific. To within ±0.5°C for all thermocouple types
Stability (temperature)	Better than 0.012%/°C of span
Output (optional) D/A resolution	12 bits, ~0.025% of selected input span
Dimensions (max)	W: 96 x H: 48 x L: 106 mm (incl. Connectors)
Panel cut-out size	45.0 ± 0.5mm x 91.5 ± 0.5mm
Connectors	Plug-in type. Separate for input, output and power supply

OPTIONAL FEATURES*

Analog Output	4-20mA or 0-10V (relative to input range)
Transmitter power supply	28V DC nominal @25mA max.
Relay outputs	up to 6 dry contacts, SPST type
Tri-color display	Color change upon trip of set-points
Communications	RS232 or RS485

* Consult factory for variations, availability and allowed combinations

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PC Programable Universal Input Monitor

ORDERING INFORMATION

SPM - 4 X X - X - X - X - X - X - X

