

# MIC 1400

## MICROBASED 1/4 DIN CONTROLLER

1 4 0 0 [ ] [ ] [ ] [ ] [ ]

### ORDERING

	<b>OUTPUT 1</b>	_____
1	Relay	
2	SSR Driver	
3	4-30mA*	
	<b>OUTPUT 2 #</b>	_____
0	None	
1	Relay	
2	SSR Driver	
3	4-20mA*	
4	Transmitter Power Supply*	
	<b>OUTPUT 3#</b>	_____
0	None	
1	Relay	
2	SSR Driver	
3	4-20mA**	
4	Transmitter Power Supply**	
	<b>OPTIONS</b>	_____
0	None	
1	RS-485 Communications	
4	Green Lower Display	
5	RS-485 & Green Lower Display	
	<b>SUFFIX</b>	_____
02	Line Voltage 24 V AC/DC	

\* For control output only.

\*\* For retransmission only.

+ Cannot be included if output 3=4.

\*\* Cannot be included if output 2=4.

# **NOTE:** OUTPUT 2, when programmed as an ALARM, IS programmed as ALARM 2 ONLY. OUTPUT 3, when programmed as an ALARM, IS programmed as ALARM 1 ONLY.



### WARRANTY

This instrument is backed by the Partlow comprehensive 2 year warranty. A complete warranty statement is published in the back of the product instruction manual. If you have further questions about warranties, please contact the Partlow factory.

### ORDERING INFORMATION

For pricing and additional ordering information, refer to Form 3265, Electronic Price Book, Page 13.



**DESCRIPTION**

The Partlow MIC 1400 line of 1/4 DIN controllers offers a variety of enhancements for improved indication and control of a number of process variables. Its innovative design combines the ease of use common to the 1/16th and 1/8 DIN Partlow controllers as well as sharing the same basic operator interface as the popular MIC 2000 Series.

The latest technology offers shorter package depth, fewer circuit cards and faster sampling of the input values. Also wide range power supplies combined with a optional low voltage supply, will aid in meeting EEC directives.

For quick computer configuration , each MIC 1400 has a built in Configuration socket that combined with our exclusive configurator cable and software will make any standard IBM compatible PC a simple and easy MIC 1400 configurator.

**SPECIFICATIONS**

**Input**

Thermocouple types	J, K, T, R, S, B and L
RTD	100 ohm (.00385 ohm/ohm/C)
Volts	0 to 5VDC, 1 to 5VDC, 0 to 10VDC and 2 to 10 VDC
Millivolts	0 to 50mVDC and 10 to 50mVDC
Milliamps	0 to 20mADC and 4 to 20mADC
Sensor Fault Detection	Displays $\llcorner$ or $\llcorner$ for thermocouple or RTD inputs and sensor break, SnSr. Control outputs set to OFF (0% power); alarms operate as if the process variable has gone over-range (TC) and under-range (RTD & V, mV, mA)

**Outputs**

Relay	SPDT 2.0 A Resistive at 120/240 VAC
SSR Driver	>4.2 VDC into 1K ohm minimum
Current Output	0-20mADC into 500 ohm maximum 4-20mADC into 500 ohms maximum
Volts DC Output	0-10VDC 500 ohm minimum 0-5VDC 500 ohm minimum

**Display**

Digital Display	Four 7 segment LEDs, top .53" high, bottom .39" high
Status Indicators	Individual LED indicators for Output 1, Output 2, Manual, Alarm and Pre or Auto Tune

**Alarm Adjustment**

Process Alarm	- Input Span
Deviation Alarm	- Input Span
Deviation Band Alarm	0 to Input Span

**Control Adjustments**

On/Off Hysteresis	0.1% to 10.0% of Input Span
Proportional Band	0% to 999.9% of Input Span (0%=On/Off)
Manual Reset	0% to 100% of Output Power
Auto Reset	Off to 99 mins. 59 sec per repeat
Rate	0 sec to 99 mins. 59 sec
Cycle Time	.5, 1, 2, 4, 8, 16, 32, 64, 128, 256, and 512 seconds
Spread	-20% to +20% of PropBand 1 + PropBand 2

**Performance**

Measurement Accuracy	- 0.25% of span, - 1 LSD at 20 deg C Note: Reduced performance with Type "B" thermocouple between 100-600C (212-1112F)
Ambient Temperature Error	0.01% of span /deg C change in ambient
Linearization Accuracy (TC and RTD)	Better than - 0.2 deg C any point, any 0.1 deg C range (- 0.05 deg C typical). Better than - 0.5 deg C any point, any 1 deg C range
Cold Junction Compensation	Better than - 0.7 deg C
Scan Rate	4 per second
Noise Rejection	Common mode: >120dB at 50/60Hz giving negligible effect at up to 264V 50/60Hz Series Mode: >500% of span (at 50/60 Hz) causes negligible effect
Line Voltage	90 to 264VAC 50/60 Hz
Operating Temperature	0 to 55 C
Storage Temperature	-20 to 80 C
Humidity	20 to 95% non condensing
Source Resistance	1000 ohm maximum (thermocouple)
Lead Resistance	50 ohm per lead maximum balanced (Pt100)
Dimensions	1/4 DIN front panel, 3.94" deep
Weight	16 ounces maximum
Front Panel Sealing	IP65
Power Consumption	4 Watts

**Digital Communications**

Type	RS-485 serial communication port:
Character Format	ASCII
Bit Rate	User configurable to 1200, 2400, 4800, 9600
Address	User configurable 1 to 32