

**4 Pen Recorder w/Alarms**

**DESCRIPTION**

The MRC 9400 VersaEZ will record up to four process variables on a circular chart. The circular chart sizes are 10", 11" or 12" with the unit shipped to you configured to record on 12" paper.

The VersaEZ is designed to provide you with a product that is user-friendly, and delivers a high quality unalterable printout of your process data.

Out of the box the VersaEZ is set up for most common applications. Given that there are many variables in the world of process control, no one set-up will cover all needs. Yet preconfigured as the VersaEZ is, it will minimize the amount of time you need to commit to programming. You need only change the parameters necessary to get your process running and documented.

**MRC 9400™ VersaEZ™**  
*All Your Recording Needs  
 Made E-Z!*

**APPLICATIONS:**

- Process Validation
- Trend Analysis
- Regulatory Compliance
- Product Safety:
  - Temperature, Pressure and Relative Humidity

**INDUSTRIES**

Oven, chamber, furnaces, heat treating, food processing, harsh water environments

**FEATURES/BENEFITS**

- Pre-configured for you for E-Z installation and out-of-the box, plug and play capability
- Four pens and four colors
- Flexible chart sizes—choose from 10–12" diameter



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# MRC 9400™ VersaEZ™

## All Your Recording Needs Made E-Z!

**4 Pen Recorder w/Alarms**

### SPECIFICATIONS

#### STANDARD FEATURES

**Modes:** Digital; Record  
**Display:** Two line, 40 character vacuum fluorescent display with 0.21" (5mm) high characters; 15 keys for programming and unit operation; display modes; automatic or manual sequencing; 3 display formats.  
**Status Indicators:** 8 red LED alarm status indicators; real time clock for time and date stamping on chart output.  
**Chart:** 10–12" circular chart; 100 charts furnished with each instrument. Unless otherwise specified, charts shipped with instrument are in 100 divisions.  
**Chart Rotation:** User configurable 8, 12, 24 or 48 hrs or 7 days.  
**Chart Range:** Bottom and top of span –999999 to 999999 units.  
**Pen Type:** Disposable 4 pen fiber tip marker assembly.  
**Pen Color:** Pen 1 (red); Pen 2 (green); Pen 3 (blue); Pen 4 (black).  
**Memory Backup:** EEPROM and battery backed SRAM; 5 year minimum life.  
**Construction/Enclosure:** Gasketed, cover, case and windows. Structural foam case and cover; optional door lock or glass window option.

#### OPERATING CHARACTERISTICS

**Operating Temp:** 32° to 122°F (0° to 50°C).  
**Storage Temp:** –40° to 149°F (–40° to 65°C).  
**Humidity:** 10% to 90% non–condensing R.H.  
**Vibration:** 0.5 to 100Hz @ 0.2g.  
**Electro Static Discharge:** No effect from 5000V static charge over the entire area.

#### ELECTRICAL

**Power Consumption:** 60VA max.  
**Line Voltage:** 85–265VAC 50/60Hz..

#### INPUTS

**Thermocouple:** J, K, T, R, S, E, B, N, G, D, C, Ni/Ni-Moly and Platinel II.  
**RTD:** 100 ohm platinum, 2 or 3 wire; 0.00385 ohms/ohm/°C or 0.00392/ohms/ohm/°C.  
**RDT Excitation Current:** 1mA.  
**DC Voltage:** 0 to 25mV, 0 to 100mV, 0 to 1V, 0 to 10V.  
**DC Current:** 0–20mA or 4–20mA.  
**Impedance:** 25mV, 100mV, 1V > 10 megohms, 10V > 50 kohms, mA: 50 ohms.

#### OUTPUTS

**ALARM (Options):**  
**Number:** Up to 2 alarms for each of four process variables; Type: process high/low.  
**Relay:** SPDT; 5A resistive @ 115VAC, 2.5A resistive @ 230VAC.  
**Process Alarm:** Direct (High) or Reverse (Low).  
**Alarm Hysteresis:** Fully adjustable.  
**Retransmission:** 0–20mA or 4–20mA nominal into 650 ohm load map.

#### PERFORMANCE

**GENERAL:**  
**Input Measurement Error:** ±0.25% of measurement span reference accuracy.  
**Ambient Temperature Error:** 0.01% of span per degree C deviation from 25°C.  
**Cold Junction Compensation Error:** ±0.2% @ 25°C.  
**Cold Junction Compensation Rejection:** 0 ±0.4°C from 25°C.  
**Linearization Error:** TCs: ±0.25°C typical; ±0.5°C worst case with exceptions. RTDs: ±0.1°C typical; ±0.3°C worst case.  
**Noise Rejection:** Normal Mode: 100dB minimum at 60Hz or greater. Common mode: 120dB minimum at 115VAC maximum.  
**Isolation:** 500VDC/350VAC.  
**Scan Rate:** 2 scans/second; scan rate is programmable for each input with the limitation that a total of 16 measurements can be made in one second.  
**Chart Accuracy:** Recording: 0.3% of span. Chart Rotation: ±0.2 minutes for a 24 hour rotation, assuming all backlash removed, 6–9999 hours per revolution.  
**Sensor Fault Detection:** Sensor break on all temperature controls, RTDs, 1 volt, 1 to 5 volt, 4–20mA, and millivolt inputs. Sensor high or low on all inputs, 5% above or below range.  
**Transmitter Power Supply:** Up to 4 isolated 25mA @ 24VDC supplies available.  
**Data Backup:** EEPROM for input board and motherboard calibration data; battery backed SRAM for configuration data.

#### COMMUNICATIONS INTERFACES

**Communications Port:** RS-232/485 serial, half duplex.  
**Protocol:** Modbus RTU.  
**Bit Rate:** User-configurable 1200, 2400, 4800, 9600 baud.  
**Address:** User-configurable, 1–247.

#### RATINGS/AGENCY APPROVALS

**Safety:** UL 1092, UL916 and QUXY File E67237; CSA Spec 142 File 67237; CE EN60010–1 1993/1995.  
**Immunity:** CE compliance EN50082-2.  
**Emissions:** CE compliance EN50081-1; EN55022 Class A.  
**Hazardous Location:** ETL Listed Class 1 & II Division 2 and Class III, Division 1 & 2 Ref 56042.  
**Other:** ISO 9002 registered.

#### PROTECTION

NEMA 3 optional

#### PHYSICAL DIMENSIONS

**Width:** 14.12" (359mm).  
**Depth:** 7.75" (197mm).  
**Height:** 16.77" (426mm).  
**Weight:** 25 lbs (9.1kg).  
**Mounting/Mounting Position:** Panel or wall.

#### OPTIONS/ACCESSORIES

Diverse pen options (see config matrix for details).  
 Choose from up to 4 input options (see config matrix for details).  
 Totalizer option.  
 NEMA 4 protection optional.  
 Diverse window and door lock options.  
 RS-232/485 communication option.

#### WARRANTY

2 years.



**PARTLOW™ brand**

**MRC 9400™ VersaEZ™**

**Flow Controller**

**All Your Recording Needs  
Made E-Z!**

**MODELS**

Code 1: Model	Code 2: Pens/Colors	Code 3: Universal Inputs	Code 4: Required Zero	Code 5: Relay Outputs*	Code 6: Required Zero	Code 7: Process Retransmission (4-20mA Isolated Outputs	Code 8: Transmitter Power Supply	Code 9: Totalizer	Code 10: Digital Communications	Code 11: Enclosure Options	Code 12: Case Type and Mounting
<b>94</b>	<input type="checkbox"/>	<input type="checkbox"/>	<b>0</b>	<input type="checkbox"/>	<b>0</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MRC9400 VersaEZ 4 Pen Recorder with Alarms	1 One Trend, One Color** 2 Two Trend, Two Colors*** 3 Three Trend Pens, Three Colors*** 4 Four Trend Pens, Four Colors 5 One Trend Pen, Four Colors 6 Two Trend Pens, Four Colors 7 Three Trend Pens, Four Colors	1 One Input 2 Two Inputs 3 Three Inputs 4 Four Inputs		0 None 2 Two 4 Four 6 Six 8 Eight		0 None 3 One Output 4 Two Outputs 5 Three Outputs 6 Four Outputs	0 None 1 One Supply 2 Two Supplies 3 Three Supplies 4 Four Supplies	0 None 1 Totalizer	0 None 1 RS-232 /RS-485	1 Glass Window 2 Glass Window w/Door Lock *** 3 Plastic Window 4 Plastic Window w/Door Lock ****	1 NEMA 3 Panel Mount 2 NEMA 4 Panel Mount

\* Total quantity of SPDT Relays must be less than or equal to eight.  
 \*\* Pens/colors are added to the instrument in the following order: red, green, blue, and black.  
 \*\*\* Door Lock N/A with NEMA 4

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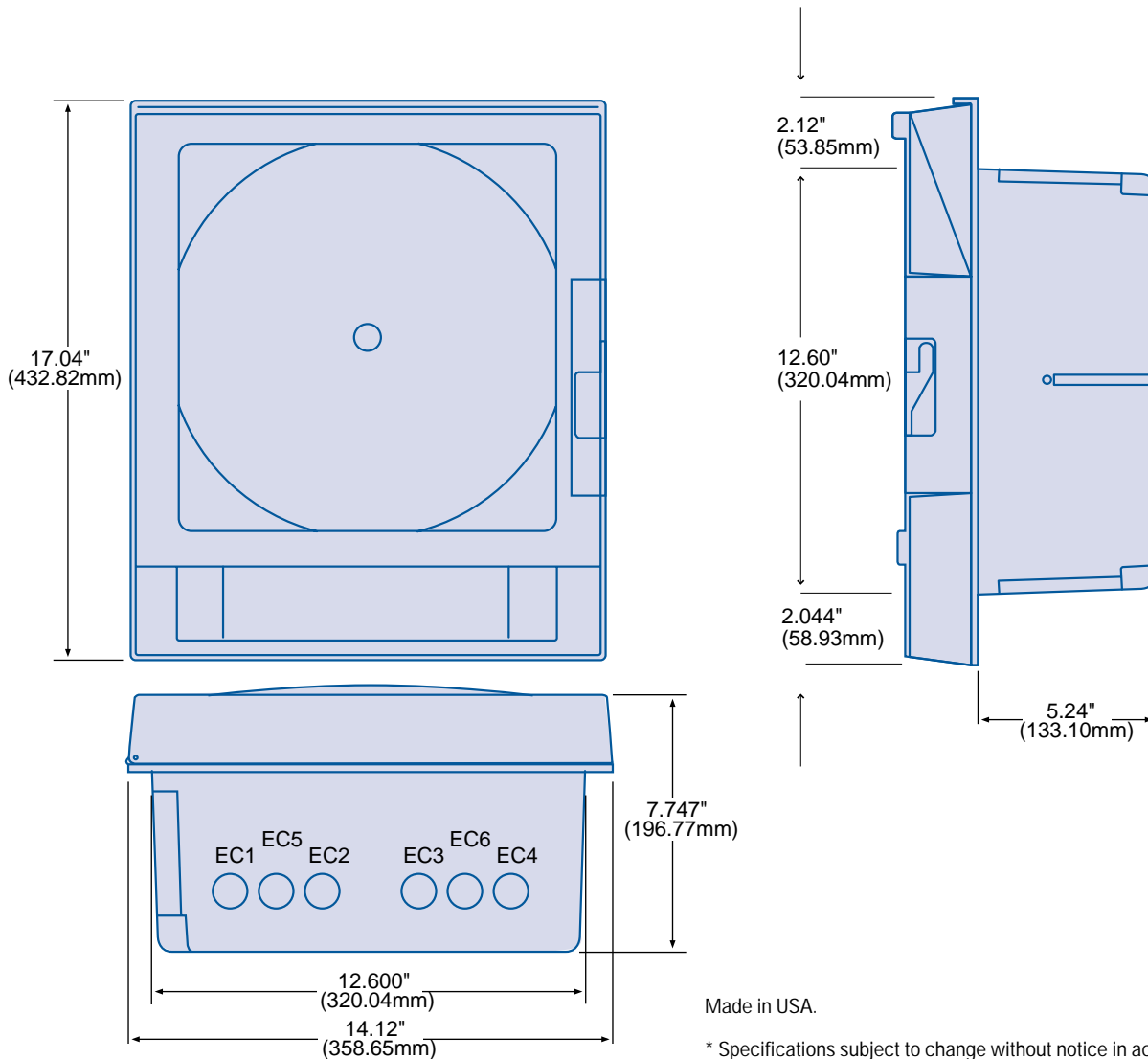
# MRC 9400™ VersaEZ™

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Made E-Z!

Recorders

4 Pen Recorder w/Alarms

## DIMENSIONS



Made in USA.

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Partlow Brand MRC 9400 Data Sheet (5/05)

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