

# VERSACHART

## 4 PEN COLOR RECORDER

9 0 0 0 1

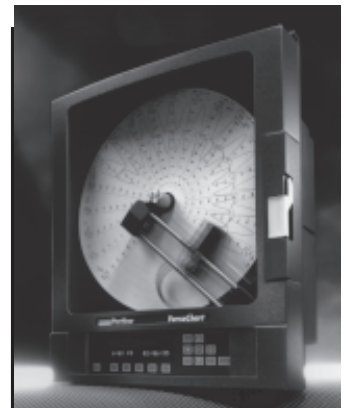
<p><b>TYPE</b> _____</p> <p>1 Recorder Only</p>	<p><b>PENS</b> _____</p> <p>1 One Trend Pen, One Color**</p> <p>2 Two Trend Pens, Two Colors**</p> <p>3 Three Trend Pens, Three Colors**</p> <p>4 Four Trend Pens, Four Colors</p> <p>5 One Trend Pen, Four Colors</p> <p>6 Two Trend Pens, Four Colors</p> <p>7 Three Trend Pens, Four Colors</p>	<p><b>UNIVERSAL INPUTS</b> _____</p> <p>1 One Input</p> <p>2 Two Inputs</p> <p>3 Three Inputs</p> <p>4 Four Inputs</p> <p>6 Six Inputs</p> <p>8 Eight Inputs</p>	<p><b>FIXED CHARACTER</b> _____</p>	<p><b>RELAY OUTPUTS*</b> _____</p> <p>0 None</p> <p>2 Two Relays</p> <p>4 Four Relays</p> <p>6 Six Relays</p> <p>8 Eight Relays</p>	<p><b>SSRD OUTPUTS*</b> _____</p> <p>0 None</p> <p>2 Two SSRDs</p> <p>4 Four SSRDs</p> <p>6 Six SSRDs</p> <p>8 Eight SSRDs</p>	<p><b>4-20mA OUTPUTS</b> _____</p> <p>0 None</p> <p>1 One Output (non-isolated)</p> <p>2 Two Outputs (non-isolated)</p> <p>3 One 4-20mA Output (isolated)</p> <p>4 Two 4-20mA Outputs (isolated)</p> <p>5 Three 4-20mA Outputs (isolated)</p> <p>6 Four 4-20mA Outputs (isolated)</p>	<p><b>TRANSMITTER POWER SUPPLIES</b> _____</p> <p>0 None</p> <p>1 One</p> <p>2 Two</p> <p>3 Three</p> <p>4 Four</p>	<p><b>MATH/ TOTALIZERS</b> _____</p> <p>0 None</p> <p>1 Math</p> <p>2 Totalizers</p> <p>3 Math &amp; Totalizers</p>	<p><b>MEMORY CARD/ COMS</b> _____</p> <p>0 None</p>	<p><b>ENCLOSURE OPTIONS</b> _____</p> <p>1 Glass Window†</p> <p>2 Glass Window with Door Lock</p> <p>3 Plastic Window</p> <p>4 Plastic Window with Door Lock</p>	<p><b>CASE TYPE &amp; MOUNTING</b> _____</p> <p>1 NEMA 3 Panel Mount</p> <p>2 NEMA 4 Panel Mount</p>
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\* Note 1: Total quantity of SPDT Relays and SSR Drivers must be less than or equal to eight.  
 \*\*Note 2: Pens/colors are added to the instrument in the following order: red, then green, then blue, and then black.



**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 47.



## DESCRIPTION

The VersaChart features a new level of circular chart recording capability. Its brilliant color trend lines, scales, and alphanumeric annotations make chart reading easy, fast, and accurate because associated trend lines, scales and alphanumeric data are linked by common colors. Printing is accomplished with a four-color marker pen cartridge which prints the information as it glides across your choice of 10, 11, or 12 inch charts. The VersaChart uses standard plain-paper circle charts rather than "fax-type" thermal paper, providing a more permanent record of your data. Trend data can be scaled and zoned to enhance readability, and portions of a scale may be magnified for better resolution within critical areas. Its bright and easy to read 40 character VFD can simultaneously or sequentially display process value, units, and tag information.

The display and English prompting system, combined with the five Quick-Select keys, make programming the VersaChart easy for users at all skill levels. Standard features include multiple security levels and passwords, modular I/O for easy field upgradeability, derived actuators with logic equation capability, and user configurable display and chart messages. A number of optional features are available including up to 8 Analog Inputs, an Advanced-Math-Capability (with up to 12 Derived Variables and 4 Custom Curves), and up to four Totalizers. It is designed to easily and quickly retrofit existing name-brand circle chart recorders.

## SPECIFICATIONS

### Input

Thermocouple types	J, K, T, R, S, E, B, N, G, D, C, Ni/Ni-Moly and Platinell II.
RTD	Platinum100, 2 or 3 wire .00385 coefficient DIN 43760/IEC 751 .00392 coefficient (USA) .00392 coefficient (SAMA) Nickel 100, 2 or 3 wire
Voltage Inputs	0 to 25mV, 0 to 100mVDC, 0 to 1 VDC, 0 to 10 VDC
Current Inputs	0 to 20mA, 4 to 20mA
Scan Rate	The inputs scan rate is programmable and dependent upon the number of active inputs present in the recorder. The overall capability of the instrument is 16 scans/second.
Normal Mode Rejection	100dB min. @ 60 Hz or greater
Common Mode Rej.	120 dB min.
Common Mode Voltage	350 VAC, - 500 VDC

### Outputs

A total of eight on/off outputs, either Relay or SSRD, and up to four, 4-20mA analog outputs are available

Relay	SPDT, contacts rated 5 amps resistive at 115 VAC. 2.5 amps resistive at 230 VAC - 1/8 HP at 230 VAC (single phase), 250 VA at 115/230 VAC
SSR Driver	Open collector output. Short circuit protected @ 100mA maximum Provides 40mA at 3 VDC or 20mA at 4 VDC.
Analog	0 to 21mA into 0-650 ohm load with 12 bits resolution.

### Alarms

Process & Rate	Four alarms available per each of four process variables
Hysteresis	Fully adjustable

### Performance

Measurement Error	- .025% of measurement span reference accuracy
Cold Junction Comp. Error	-.2 @ 25 degrees C
Cold Junction Comp. Reject.	.04 /degree C deviation from 25 degrees C
Linearization Error	TCs: - .25 C typical, - .5 C worst case with exceptions RTDs: - .1 C typical, - .3 C worst case

Ambient Temperature Error	0.01% of span per degree C deviation from 25 C
Sensor Fault Detection	Sensor break on all TCs, RTDs, 1 volt, 1 to 5 volt, 4-20mA, and millivolt inputs. Sensor high and low on all inputs, 5% above or below range.
Memory Backup	Battery, 5 years minimum life, 10 years typical
Operating Temperature	0 to 50 C (32 to 122 F)
Storage Temperature	-40 to 65 C (-40 to 149 F)
Humidity	10 to 90% RH, non condensing
Warranty	2 years

### Recorder, Display and Keypad

Chart	10, 11, or 12 inch circular
Chart Drive	DC stepper motor
Chart Rotation	6 to 9999 hours per revolution
Pen Type	Disposable, 4 pen fiber tip marker assembly
Pen Colors	Red, green, blue, and black
Recording Accuracy	.3% of chart span reference accuracy
Chart Drive Accuracy	-.2 minutes per 24 hours, assuming all backlash removed
Primary Display	2 line, 40 character vacuum flourescent display with .21 inch (5 mm) high characters
Status Indicators	8, user configurable, red LED status indicators
Operator Keypad	15 keys for programming and unit operation

### Agency Approvals

cUL - UL approved for USA; UL certified for Canada

### Power Requirements

Line Voltage	115 or 230 VAC, - 15%, 50/60 Hz, field selectable
Power Consumption	60 VA maximum

### Physical

Overall Dimensions	14.12" Wide x 16.77" High x 7.75" Deep (358.65mm W x 425.96mm H x 196.85mm D)
Weight	25 lbs maximum
Vibration	.3 to 100 Hz @ 0.2 g
Enclosure	Gasketed cover, case and windows. Structural foam case, cover material with plastic or glass window areas. Door lock available.
Mounting	Panel, wall, or pipe (optional)
Conduit Openings	Four openings standard, 2 additional as required
NEMA Rating	NEMA 3 standard, NEMA 4X future option
Panel Depth	5.25 inches (133.35 mm)
Panel Cutout	12.7" Wide x 12.7" High (322.58mm W x 322.58mm High)
Front Panel Protrusion	2.5 inches (63.5mm)