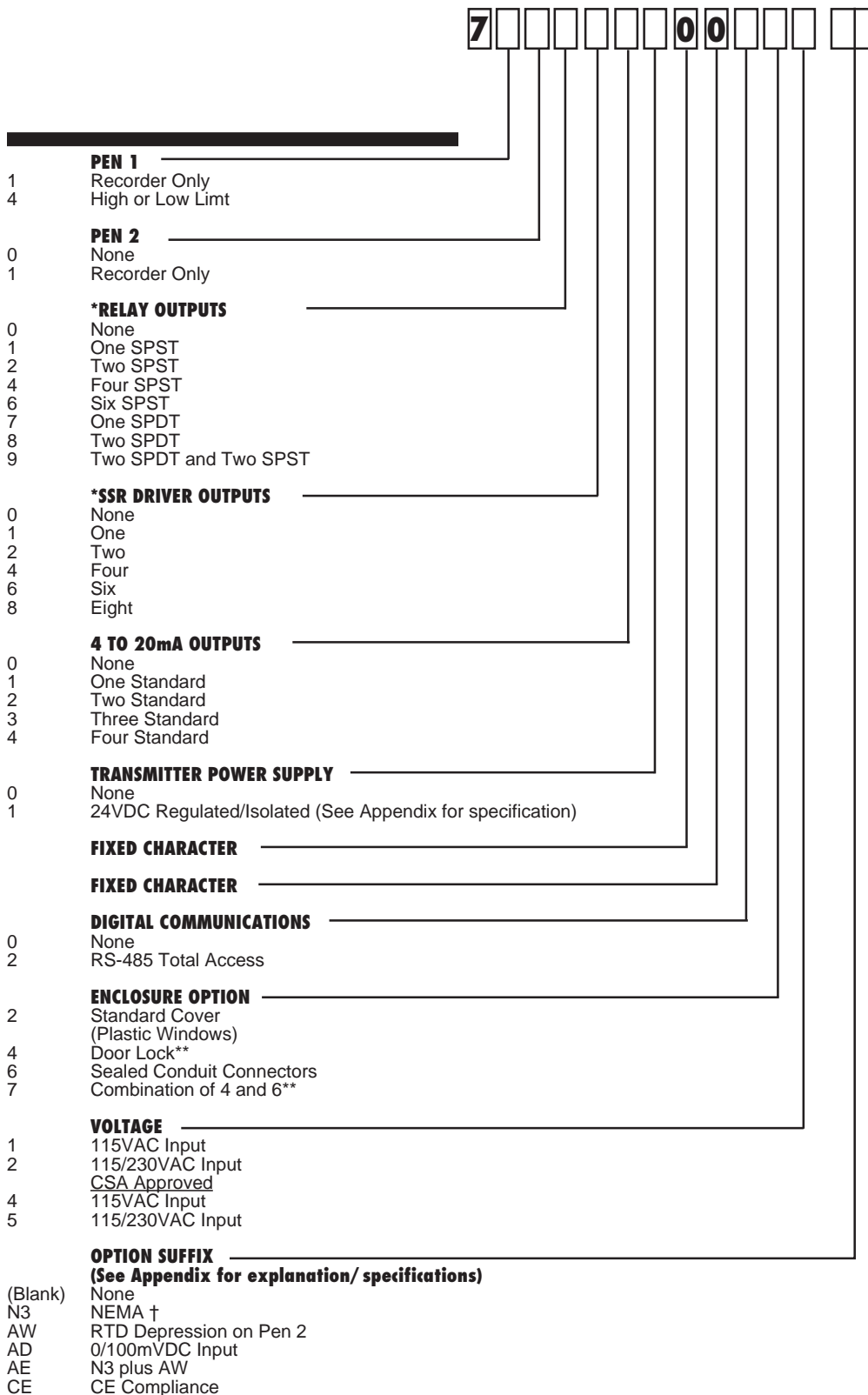


MRC 7000 SERIES RECORDER ONLY

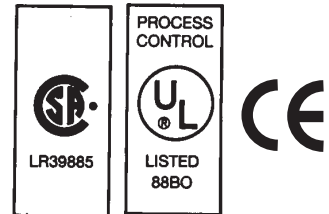


* Total quantity of SPST Relays and SSR Drivers must be less than or equal to eight. When SPDT Relays are included, the total must be less than or equal to six.

** This option comes with a structural foam cover.

†N3 - NEMA type protection for wet environments.

Note: 4-20mA inputs are accommodated using the 1-5V input and a 250 ohm Shunt Resistor, P/N 64411701 (provided with the unit) or the 10-50mA input and a 2.5 ohm Shunt Resistor, P/N 64411702.



WARRANTY

This instrument is backed by the Partlow comprehensive 3 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 39.



DESCRIPTION

The MRC 7000 Recorder is a microprocessor based circular chart recorder capable of measuring, displaying, and recording up to two process variables from a variety of inputs. Process recording applications include temperature, pressure, level, flow, and others.

Recorder functions, alarm settings, and other parameters are easily configured via the keys on the front cover and self-prompting displays. All user configured data can be protected against unauthorized changes via the MRC 7000 Enable mode security system and is protected against data loss due to AC power failure by battery back-up.

SPECIFICATIONS

Input

Thermocouple types	J, K, T, E, N, R, S, B, and C.
RTD	100 ohm(.00385 Ohm/Ohm/C)
Volts	0 to 5VDC, 1 to 5VDC.
Millivolts	0 to 25mVDC, 0 to 50mVDC, 10 to 50mVDC.
Milliamps	4 to 20mADC, accommodated via 10 to 50mV or 1 to 5V input with the addition of the appropriate external shunt resistor.
Sensor Fault Detection	Displays "Hi" or "Lo" process input (10% above or below range) and sensor break "SnSr". Pen action on error condition is user configurable to 0 to 100% of chart span.

Outputs

Relay	SPST, SPDT 115VAC: 5.0A Resistive, 1/8HP, 250VA 230VAC: 2.5A Resistive, 1/8HP, 250VA
SSR Driver	Open collector output. Short circuit protected @ 100mA maximum Provides 4VDC @ 20mA or 3VDC @ 40mA
Process Value Output	0 to 20 or 4 to 20mADC into 650 ohms max.

Alarms

Process Alarm	Direct (High) or Reverse (Low); -9999 to 9999
Alarm Hysteresis	0 to 300 units (width of hysteresis band).

Performance

Measurement Error Limit	<ul style="list-style-type: none"> • Type J, K, T, E, N, C, T/C's and RTD -0.25% of reading plus 1 degree @ 25 degrees C • Type R, S, B, C T/C's -0.25% of span @ 25 degrees C • mVDC and VDC -0.25% of scaled span plus 1 Least Significant Digit
Ambient Temperature Error	0.01% of span per degree C deviation from 25 C
Process Value Output Error Limit	-0.5% of span
Record Error Limit	-0.5% of chart span, typical - 1% of chart span maximum
Scan Rate	1 scan per second
Display/Record Filter	0.15% of chart span
Recording Deadband	0.3% of chart span
Pen Response (full scale deflection)	20 seconds

Display Resolution	T/C and RTD, 0.1 or 1 degree mVDC and VDC, 0.001, 0.01, 0.1, or 1
Calibration Drift	Self compensating for ambient temp., all calibration values are stored in memory.
Noise Rejection	Common Mode Rejection: 90dB minimum; -8VDC maximum peak for RTD input; 115VAC maximum for other inputs. Normal Mode Rejection: 85dB minimum @ 60Hz or greater
Line Voltage	115/230VAC -10%, 50/60 Hz
Power Consumption	25VA maximum
Operating Temperature	0 to 55 F, 32 to 131 F
Storage Temperature	-40 to 65 C, -40 to 149 F
Humidity	0 to 90% RH, non condensing
Dimensions	13.19" H x 15.13" W x 3.63" D
Weight	20 pounds maximum
Vibration	0.5 to 100Hz at 0.2g

Record and Display

Chart	10 inch circular
Chart Range	-9999 to 9999 units
Chart Drive	DC stepper motor
Chart Rotation	User configurable from 0.1 to 999.9 hours per revolution.
Pen Type	Disposable Fiber tip
Pen Color	Pen 1 - Red, Pen 2 - green.
Digital Displays	Two possible, one per installed pen each having four 7 segment digits measuring 0.56" high with red LEDs.
Alarm Display	Two alarms per pen; ALRM1 and ALRM2; red LEDs

Agency Approvals

UL and CSA

Transmitter Power Supply

Provides up to 40mA @ 24VDC.

Digital Communications

Type	RS-485 serial communication port. Half-duplex bi-directional comm.
Character Format	ASCII
Protocol	Per ANSI X3.28 sugcategories 2.5 & A4
Configuration	User configurable to "Monitor" (read only) or "Normal" (read and write)
Bit Rate	User configurable to 300, 600, 1200, 2400, 4800, or 9600 bits per second.
Address	User configurable for each pen; 0 to 99.