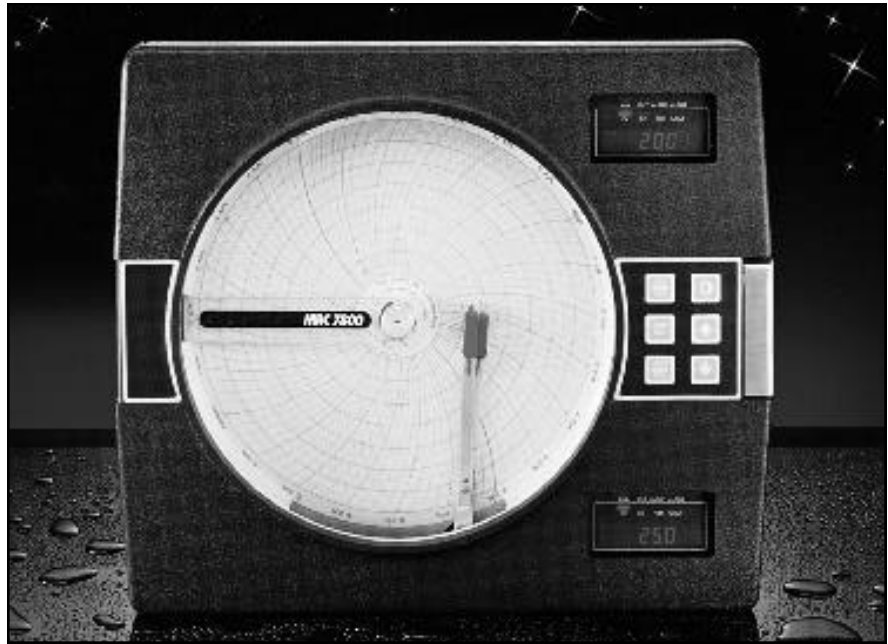


MRC 7800



The MRC 7800 recorder—designed specifically for measuring and totalizing flow.

Go With
The Flow

*and a
recorder
that can
measure it.*

The MRC 7800 is a microprocessor-based circular chart recorder particularly designed to measure and record flow. It can be used in the foods, beverage, chemical, oil-gas-petro-chemical, and pulp and paper industries, or to measure and record flow for heat exchange and utility output applications. Moreover, its special features make it well-suited for water/wastewater flow and totalization applications.

The MRC 7800's many special features are what makes it ideal for a variety of applications. Some of these features include: flexible dampening for accurate measurement of erratic or turbulent flow applications, a variety of square root extraction methods, variable exponent to convert head to flow for Parshall flumes and weirs, separate low flow cutoffs for recording and totalization, adjustable flow time base, adjustable decimal position for both flow rate and total, remote reset for totalization, and one button switching between Process Value and Total displays.

Totalization is available on each pen and can be done on a per second, minute, hour, or day basis. Decimal positioning is independent for the process values and totals. The totals can be reset to zero via the keypad or remote contact closure. When totalization is ordered, an optional datalogging feature is available.

Outputs may be assigned for High and/or Low flow. They can also be assigned to activate at preset totalization values for batching applications.

The MRC 7800 is backed by a three-year warranty and free technical support throughout the life of the product.

MRC 7800 SPECIFICATIONS

PERFORMANCE

Measurement Error Limit: mA, mVDC, and VDC, $\pm 0.25\%$ of maximum span plus 1 Least Significant Digit @ 25°C (Spans 4 to 20mA, 0 to 5V, 0 to 100mV)

Ambient Temperature Error: 0.01 % of span per °C deviation from 25°C

Scan Rate: 1 to 3 scans/second (Two Pen units), 1 to 5 scans/second (One Pen units)

Display Decimal Positions: None, one, two, or three decimal places

Noise Rejection: Normal mode, 85dB min. at 60Hz or greater Common mode, 90dB min., 115V AC max.

Line Voltage: 115/230V AC $\pm 10\%$ 50/60Hz

Power Consumption: 25VA max.

Operating Temperature: 0 to 55°C (ambient), 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 max.

Transmitter Fault Detection: Displays "SnSr" for sensor or transmitter break. Outputs go off. Fault detection is not functional for zero based voltage and milliamp inputs.

Agency Approvals: UL and CSA

Transmitter Power Supply: Provides up to 40mA of current at 24V DC

INPUTS

Milliamps	Millivolts	Volts
4 to 20mA DC	0 to 100 mv	0 to 5V DC
0 to 20mA DC	(scalable)	1 to 5V DC

OUTPUTS

Relay: SPST, SPDT, 5A @115V AC, 2.5A @230V AC

SSR Driver: Open collector 4V DC @20mA, 3V DC @40mA
Short circuit protected @ 100mA max.

Current: 0 to 20 or 4 to 20mA DC into 650Ω max.

ALARMS

Relay: SPST, SPDT, 5A@115V AC, 2.5A@230V AC

SSR Driver: . 4V DC at 20mA

Process Alarm: 0 to 9999 units

Alarm Hysteresis: 0 to 300 units

DISPLAY

Digital Display: Two possible: one per installed pen. 4 red digits 0.56" high. 8 digits with totalization.

Status Indicators: LED indicators for Alarm 1 and Alarm 2

RECORD

Chart: 10" circular chart; 100 charts furnished with each instrument

Chart Range: 0 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



MRC 7800 Benefits:

Input capabilities include millivolt, milliamp, and volt—flexible input options

Isolated process input—offers protection from electrical noise

Process value display for each channel—conveniently view process during recording

Totalization of flow process variables—with low flow cutoff and adjustable flow time base

Up to two programmable alarms per channel—alarm outputs may be either relays or SSR drivers

Sensor break and error fault detection—indicates when a sensor has gone bad

Display/chart and process filtering—improved display and recording of "noisy" processes

0.56 inch-high LED displays—easy to read

Tactile keys on front cover—easy to program

Programmable display—user configurable

Decimal point positioning—independent for process values and totals

Security access systems—prevent unauthorized or accidental changes

Dampening effects—ideal for applications in which erratic flow and/or turbulence impede accurate measurement

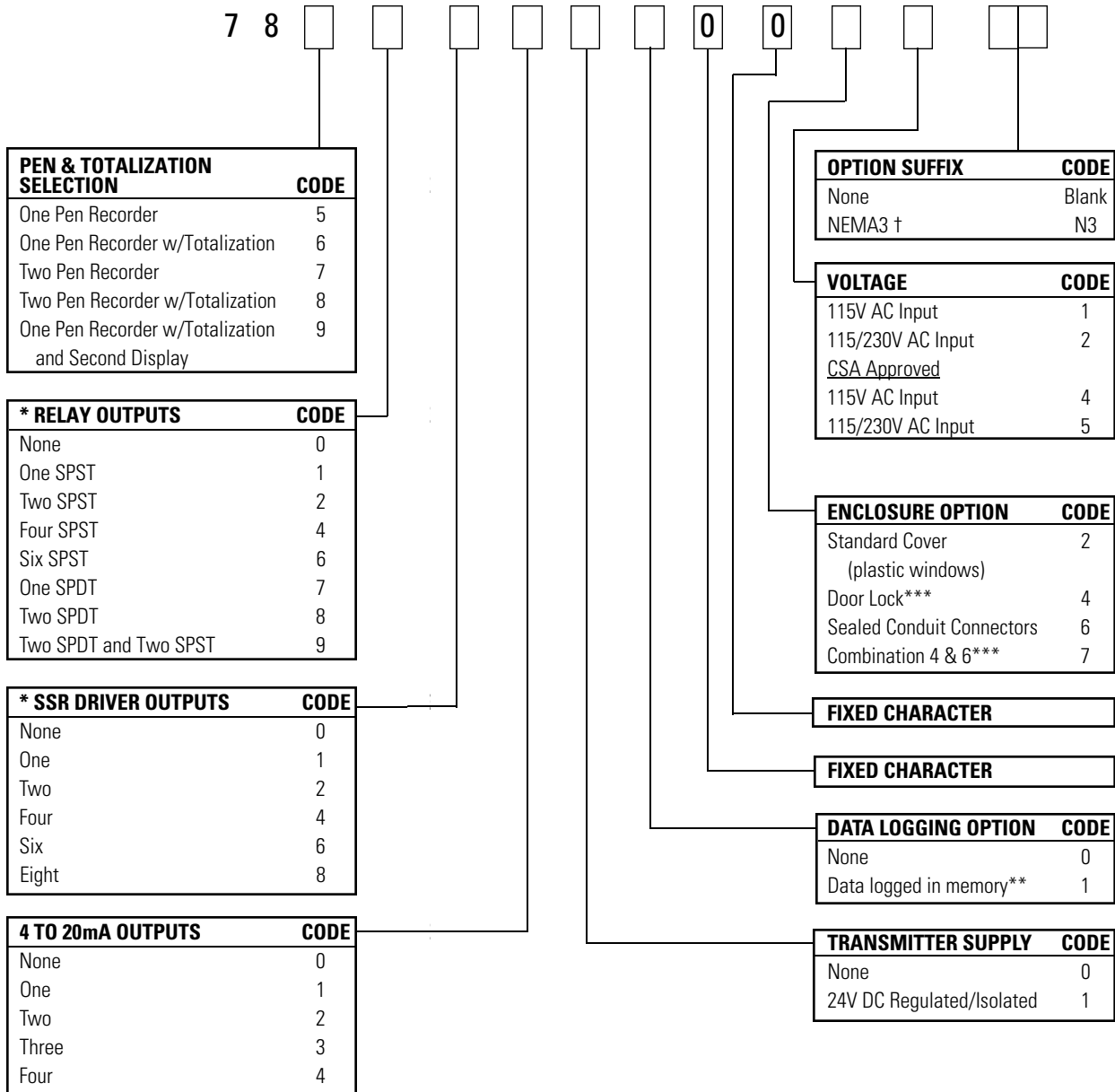
Variety of square root extraction methods—for processing the input at different levels

Remote reset option—make any changes without needing to be in the presence of the device

Three-year warranty—protects you against factory defects



MRC 7800 MODEL CONFIGURATION



* Total quantity of SPST Relays and SSR Drivers must be less than or equal to 8.

When SPDT Relays are included the total must be less than or equal to six.

** Available only on units with totalization

*** This option comes with a structural foam cover

† NEMA3 Equivalent Spray Resistant Enclosure

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

One hundred 0-100°F, 24 hour charts are provided with each instrument. Charts other than standard should be specified.

Surface mounting brackets optional.