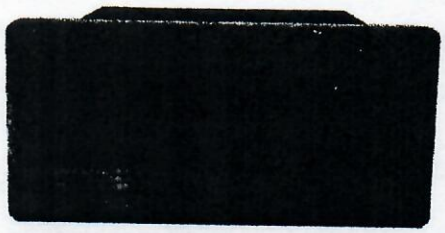
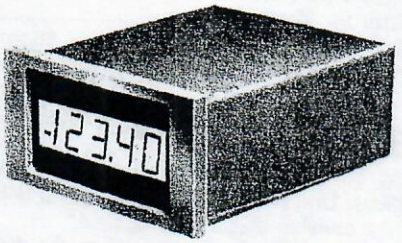
HIGH SPEED SAMPLE & HOLD DPM (DC-100KHz F.R.)
3½ & 4½ DIGIT
· RS232/422 · Peak & Hold · 3-State BCD · Digital Limit · Excitation/Compliance · Analog Output · PC Compatible

MODEL 212



LED

FEATURES
- Low Droop Rate, 20mV/SEC (0.25% of F.S./SEC)
- Indefinite Hold Functions
- Fast Response, 5µS for Full Scale Input Step (Typ. 0.4V/µS)
- External Reset Voltage Line, 0-2V=0 F.S.
- High Input Impedance: 1KMΩ
- 1/8 DIN & NEMA Compatible Cut-Out
- 3½ Digit LED or LCD Display with/wo Dummy Digit
- 7 Power Inputs



LCD

DESCRIPTION: The Model **212** Peak Detector captures positive peak input signals for display or control data. The fast analog peak detection circuit extends the sampling rate of the mainframe to 100KHz for peak detection purposes. In addition to the circuits low droop rate, the peak can be held indefinitely with the mainframes hold function or the optional digital peak and hold feature. The logic input, detect/reset is TTL and 5V CMOS compatible. The external reset voltage line allows the user to reset to any positive or negative value. This feature can be used to detect peaks only above a certain value to minimize acquisition time.

CONNECTOR(S): A standard screw type connector for power and signal input is used. The I/O ports (top board) have industry standard flat cable connectors according to the function. All mating connectors are supplied at no charge.

DISPLAY: High efficiency ±3½ LED, with or without dummy digit or its LCD high contrast low power equivalent. Dummy digit is programmable as a x10 multiplier or alpha A, C, F, H, E, L, P, etc.

INPUT RANGES: Industry's most popular ranges are standard. Contact Otek for special input ranges or scaling.

EXCITATION (COMPLIANCE) AND ANALOG CONTROL OUTPUTS: The most popular combinations to match transducers are available. See Specifications & Ordering Information. The 4-20mA outputs are ideal for **Proportional Control.**

DIGITAL CONTROL OUTPUT OPTIONS

Option 1: BCD PARALLEL TRISTATE NON-ISOLATED, TTL compatible, bit addressable, with a 34 Pin Flat Ribbon connector.

Option 2: BCD PARALLEL TRISTATE OPTO-ISOLATED to 1500VDC, TTL compatible bit addressable, with a 34 Pin Flat Ribbon connector.

Option 3: DIGITAL PEAK & HOLD WITH RECALL holds and recalls the greatest positive and negative peak when en abled, otherwise it displays current data. A 34 Pin Flat Ribbon connector is included.

Option 4: DIGITAL LIMIT compares internal BCD data to an external BCD word (Multiplex Format) from Thumbwheel Switches or any TTL source. Its two 1 amp SPDT relays (for over and under) control external loads. It is field programmable for hysterisis of 10 or 100 counts. A 34 Pin Flat Ribbon connector is supplied.

Option 5: RS232C converts the "ULTIMA 200" to a data acquisition system. Up to 32 stations and baud rates from 150-19,200, (see Section 7, Model A81-2450).

Option 6: RS422 This is the high-speed, long distance version of the RS232C with the same features, (see Model A81-2450).

Option 7: PARALLEL BCD WITH PEAK & HOLD: This option combines both options (1 & 3) on the same board.

Option 8: 8-BIT ENCODED BCD MUX: The output of the A/D (same as display) is presented on an 8 bit BUS containing the BCD (1, 2, 4, 8) plus over-range, under-range, and sign are encoded in 3 lines. A separate strobe BCD word line is included. This system is compatible to any 8 bit BUS system. Address selection is available.

Option 9: 8-BIT ENCODED BCD OPTO-ISOLATED: Same as op tion 8 except it is opto-isolated to 1500VRMS. Power requirement is 5VDC at 100mA.

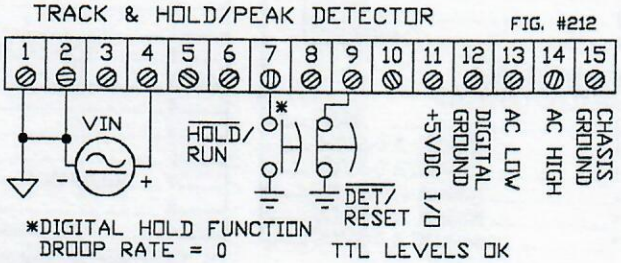
POWER INPUTS: Seven options are available: 5VDC non-isolated, 120VAC, 50-60Hz & 240VAC, 50-60Hz isolated to 1200VDC or RMS, 10VAC, 40-400Hz non-isolated, 12VDC non-isolated, 7-32VDC non-isolated and 7-32VDC isolated.

CASE: U.L. approved ABS Polycarbonate 94VO rated. Meets 1/8 DIN and NEMA panel cut out requirements.

FULL SCALE, DECIMAL POINTS, AND OTHER ADJUSTMENTS are easily accessible by removing the bezel and filter.

TYPICAL CONNECTIONS

TRACK & HOLD/PEAK DETECTOR FIG. #212



DET/RESET	HOLD/RUN	MODE
OPEN	OPEN	RESET
OPEN	GND	NOT USED
GND	OPEN	PEAK DETECT
GND	GND	HOLD

F#87MC212.DWG

MIL-SPEC & MISC.

SPECIFICATIONS AT 25°C

MAINFRAME

Accuracy & Linearity ..... ±0.1% of F.S.
Range ..... Positive peak detection only
Input Type ..... Single Ended
Droop Rate (A) ..... 20mV/SEC Max. or -.25% of full
Scale/SEC ..... (A)
Slew Rate ..... 0.4V/µS Min. (B)
Input Resistance (C) ..... 1K MEG Ω Minimum
Gain Error vs. Temperature ..... 100ppm/°C
Operating/Storage Temperature ..... -10 to +60°C/-20° to +70°C
Bandwidth to ±0.1% Flatness (Sine Wave Input) .....
..... 2V to 500V Ranges - DC to 100KHz
..... 200mV Range - DC to 50KHz
Logic Input ..... DET/Reset, "0"=Peak Detect, "1"=Reset

Note A: Droop rate may be increased or decreased for special applications. Unit may also be put in digital hold for zero droop rate, or use the optional digital peak & hold.

Note B: Slew rate will decrease when the droop rate is decreased. Consult factory for instruction manual with details.

Note C: 200mV Range; 1KmΩ, 2-500V; 1MΩ

DISPLAY

LED ±3½ ..... 0.6"
LCD ±3½ ..... 0.5"
MTBF (LED) ..... 100,000 Hours
MTBF (LCD) ..... 80,000 Hours

EXCITATION (COMPLIANCE)/ANALOG OUTPUTS

(Non-isolated from digital ground)

10VDC Excitation ..... ±1% 30mA Max.
0-5VDC Output ..... ±1% Accuracy, Max. Load: 5mA
24VDC Compliance ..... 24VDC ±10% @ 30mA Max.
4-20mA Output ..... ±1% Accuracy, 24VDC Compliance
20-4mA Output ..... ±1% Accuracy, 24VDC Compliance
1.8mA Excitation ..... ±1% at 24VDC Compliance

NOTE: All outputs are short circuit protected.

DIGITAL CONTROL OUTPUTS (All Positive True Logic)

Tristate Parallel BCD ..... 10LPTTL Loads

3-State Par, BCD Opto-Isolated ..... 10LPTTL Loads, 1500VDC isolation, 20mA at 5VDC

Digital Limit ..... Absolute comparison, 1 amp relays at 120VAC resistive, parallel BCD serial digit select type (multiplexed)

Thumbwheel Switches ..... BCD w/Diodes

Peak & Hold ..... + or - peaks, user recall/clear by logic or switch contact

BCD Multiplex ..... Parallel digit BCD, serial digit select MSD to LSD scan

Parallel BCD with Peak & Hold is the combination of options 1 & 3 (same specifications).

RS232/422 ..... See Model A81-2450

POWER INPUTS

5VDC 50mA
Display ..... LED: 140mA; LCD Display: 20mA
Plus ..... Excitation option of 150mA, plus digital control output of 100mA. Worst case requirements (Fully Loaded): 500mA
120VAC 100mA
240VAC 50mA
7-32VDC 300mA
12VDC 300mA

ORDERING INFORMATION (11/1/00)

MODEL 2 1 2 ☐ ☐ ☐ ☐ ☐ 0

DISPLAY TYPE
0 .... 3½ LED w/Dummy Zero
3 ... 3½ LCD w/Dummy Zero
5 ..... 3½ LED
6 ..... 3½ LCD

INPUT RANGE F.S.
0 ..... 200mV
1 ..... 2V
2 ..... 20V
3 ..... 200V
4 ..... 500V

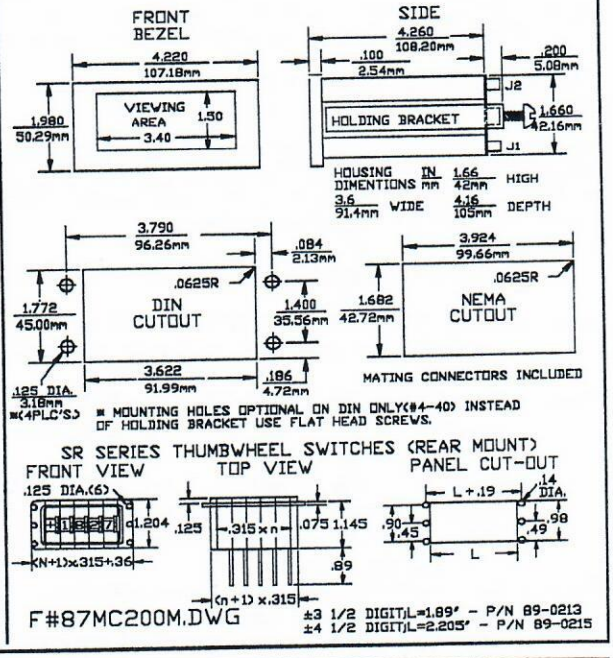
EXCITATION & ANALOG OUTPUTS
0 ..... None
1 ..... 10VDC & 0-5VDC
3 ..... 24VDC & 0-5VDC
4 ..... None & 4-20mADC
5 ..... None & 20-4mADC
7 ..... 1.8mADC & 0-5VDC

POWER INPUT
0 ..... 5VDC
1 ..... 120VAC
2 ..... 240VAC
3 ..... 10VAC
4 ..... 12VDC
5 ..... 7-32VDC
6 ..... Isolated 7-32VDC

DIGITAL CONTROL OUTPUTS (1)
0 ..... None
1 ..... BCD Parallel
2 ..... BCD Parallel Opto-Isolated
3 ..... Peak & Hold
4 ..... Digital Limit
5 ..... RS232C
6 ..... RS422
7 .... Parallel BCD with Peak & Hold
8 ..... BCD Encoded
9 ..... BCD Encoded Optoisolated

(1) Thumbwheel Switches are available for the Digital Limit Option, Order P/N 89-0213 (±3½) or 89-0215 (±4½)

MECHANICAL



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