



HT314

- single-channel key-activated flowmeter with chart recorder
- weight: 10 lb (4.5 Kg);
- dimensions: (27.8 cm) wide x 4" (9.12 cm) high x 14" (35.4 cm) deep
- attached two meter flowprobe-to-flowmeter extension cable
- separate grounded medical grade power line-cord (supplied with the flowmeter).

INPUT POWER

- Universal Power Supply; 50-60 Hz; 60 VA; 100 -240 V ± 10% (automatic voltage adjustment)

FUSES 1.5A fast blo, mfg bussman: #GMA1.5, 250 VAC
Both power entry conductors are protected by size 5 x 20 mm fuses.

ELECTRICAL ISOLATION

- Cabinet is grounded; line to ground leakage current: less than 50 µA @100-120 V line; less than 100 µA @ 220-240 V line.
- All electronic components and cabling of the probe extension cable, probe cable and probe are fully isolated from the meter electrical circuitry to meet IEC60601 "cardiac floating" specifications.
- Defibrillator Protection: probes can be left attached to the patient during cardiac defibrillation for instantaneous report on the restoration of flow.

AUTOMATIC METER ADJUSTMENTS

- Ultrasound frequency and insonification parameters
- Probe size and corresponding flow output ranges
- Volume flow calibration of connected flowprobe
- Sampling rate optimized for local ultrasonic conditions

DIGITAL PROBE IDENTIFICATION

Probe identification and calibration parameters are programmed on an EEPROM housed inside the probe connector.

COMPATIBLE FLOWPROBES

These meters accept a range of HQD-Series probes for intraoperative surgical use. See probe specification sheets or your local representative for models, sizes and recommended uses.

METER DISPLAY MESSAGES

are displayed for 1 second. Longer messages are displayed in consecutive 6-character segments.

NO PROBE INSERT KEY - No probe is connected to the meter and/or an invalid Flow-QC key is inserted in meter.

NOT A VALID PROBE - Invalid Transonic flowprobe.

HQDN - Probe type and size (e.g., HQD8);
(displayed when a probe is connected to the flowmeter).

NOT A VALID KEY - Invalid Transonic Flow-QC Key.

GOOD SIGNAL - >50% signal coupling (> than 1/2 bucket)
(displayed when no key is activating the meter or when the time on the key has expired. When a key is activating the meter, the bucket display indicates the ultrasonic signal strength.)

LOW SIGNAL - ≤ than 50% signal coupling
(≤ than 1/2 bucket).

X NO SIGNAL - No ultrasonic signal (x is probe size).
Probe cannot measure flow.

RE-INSERT KEY - If meter is turned off for less than 20 minutes and then turned on again with flow measurement time remaining on the Flow-QC Key.

TIME LEFT - X MIN - The last x minutes of key measurement period (displayed once each minute accompanied by three beeps).

TIME IS UP - Key's measurement period has expired.

DISCRD KEY - Key's measurement period has expired.
Throw away key to remove potential confusion about valid keys.

0 → SCALE - When the rear panel EXT. CAL button is pushed, the LED displays "0" and the probe's uniscale flow range (e.g. 200 ml/min) for 10 sec each, while the rear panel flow output signals switch to 0 Volt and 1 Volt.

AUXILLIARY ANALOG INPUTS

Two BNC connectors are provided on the rear panel as auxiliary inputs for the RS232 data stream. Each accepts a signal range of ± 5 Volts.

RS232 OUTPUT PORT

Optically isolated output connector meeting IEC60601 patient isolation. Permits connection to a laptop or other data monitor computer. The ± 5V analog flow signals (pressure, EKG signals) are digitized at 100 Hz sampling rate with 12-bit resolution. Data is supplied at 19200 Baud for use with FLOWTRACE software

