

HSE-Transonic Transit Time Flowmeter Module (TTFM)

- Analog display for visualizing dynamic flow signals and digital display for mean flow reading
- Reliable flow measurement especially for low flow rates
- For in-vivo bloodflow measurement or for in-vitro perfusion flow measurement Transonic® flow probes
- A large range of flow probes is available

The HSE-Harvard* Transonic® Transit Time Flowmeter (TTFM) is an ultrasonic Transit Time flowmeter for animal research.

It is a coproduction of HSE-Harvard* and Transonic System Inc., USA and incorporates a complete one channel Transonic® ultrasonic transit time flowmeter. It can be used either with in-line flow probes or perivascular probes from Transonic®.

An extensive selection of probes for vessel diameters from 0.25 to 36 mm are available for chronic and acute studies. The extracorporeal in-line-probes, ideal for isolated organ preparations, are available in sizes from 1.2 to 22.2 mm. The module features a built-in digital display for direct reading of mean flow and an analog instrument to show flow, signal quality and scale factors. The TTFM has mean and pulsatile outputs for recording, both can be used simultaneously.



Specifications

Digital Display	Shows average flow rate in ml/min or l/min
Analog Display	For monitoring analog flow, quality of ultrasound signal and scale factors; analog display also shows flow signal in MEAS. mode, signal quality in TEST mode and scale factors in CAL mode
Normal/Loflow	Loflow scale selection for increased sensitivity (x4) on low flows
Zero Flow	Automatic zero adjustment by pressing button
MEAS/CAL/TEST	Switch to select three modes: Measure/Calibration/Test
Zero/Scale	Delivers 0 flow and scale flow signal at output for calibrating connected recorder or data acquisition systems; scale factor depends on connected probe
Flow Direction	Can be inverted by switch polarity in case flow probe mounted in wrong direction
Low-Pass Filter	Three filter positions (100/30/10 Hz) for smoothing pulsatile output; 0.1 Hz fixed for mean output
Signal Output	<ol style="list-style-type: none"> 1. On front panel through BNC sockets ± 10 Volt FS, pulsatile and mean 2. Through bus connector to PLUGSYS measuring system (jumper selectable) ± 10 V FS, pulsatile and mean
Synchronization	For applications with two or more TTFM modules, synchronization output or input can be connected on PLUGSYS bus; selector on unit selects master or slave mode
Power Supply	5 V 0.6 A through connector from PLUGSYS bus system
Dimensions, H x W x D	128.7 x 80.8 x 220 mm (5.1 x 3.2 x 8.7 in)
PLUGSYS Width*	4 slot units
Weight	0.8 kg (1.8 lbs)

Catalog No.

CGS 8420.71

Product

TTFM Transit Time Flowmeter Module