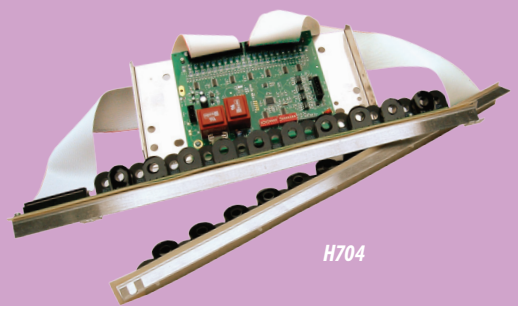
Branch Current Monitor, Solid-Core

Monitor Current on Every Breaker



DESCRIPTION

The **H704 Series** branch circuit current monitoring system provides a cost-effective solution for electrical load management, making it ideally suited for applications where load capacity requirements are dynamic, such as the data storage industry, lighting panels, etc.

The H704 monitors the current draw of each breaker in a panelboard. The accumulated information can be transmitted to a Modbus host and/or viewed on an optional local display via an RS-485 network. Data updates occur approximately once per second to provide timely preventative maintenance information. As a circuit approaches capacity, warning and alarm levels trigger (see graph, facing page). Additional capacity can then be added, or loads balanced, to prevent costly downtime from overloaded circuits and unexpected breaker trips.

FEATURES

- Up to 63 H704s can be networked on one Modbus RS-485 drop...simplified wiring
- Reports current consumed on each circuit in the panel board...one product covers multiple points
- 3/4 or 1 inch on center current sensors accommodate standard breakers...easy installation
- Provides Modbus registers for current limit warnings and alarms...prevents breaker trips
- Integrates with available network display for local indication
- Built-in ability to set the orientation and numbering of the circuits

APPLICATIONS

- Retrofitting panelboards
- Cost allocation
- Protecting against overload
- Managing and balancing loads
- Lighting circuits

SPECIFICATIONS

5 Year Warranty

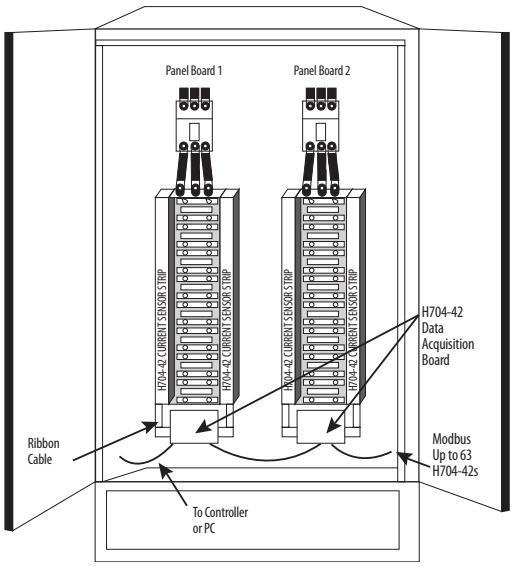
Inputs:	
Input Power	120VAC (+10/-25%) line-to-neutral, 50/60Hz; (208/230VAC for H704-42E)
Frequency	50/60Hz
Accuracy:	
Accuracy	±2% of reading from 5A to 50A
Sampling Frequency	1280 Hz
Update Rate	1.2 sec
Outputs:	
Type	Modbus® RTU
Connection	DIP-switch selectable 2-wire or 4-wire
Address	DIP-switch selectable address 1 to 247
Baud Rate	DIP-switch selectable 2400, 4800, 9600, 19200
Parity	DIP-switch selectable NONE,ODD,EVEN
Communication Format	8 data-bits, 1 start-bit, 1 stop-bit
Mechanical:	
Connection to Conductor	Solid-core toroid†
Number of Channels	up to 42
Environmental:	
Operating Temperature Range	0° to 60°C (32° to 140°F) (<95%RH, non-condensing)
Storage Temperature Range	-40° to 70°C (-40° to 158°F)

† Do not apply 300V Class current transformers to circuits having a line-to-neutral voltage greater than 300V, unless adequate additional insulation is applied between the primary conductor and the current transformers. Veris assumes no responsibility for damage of equipment or personal injury caused by products operated on circuits above their published ratings.

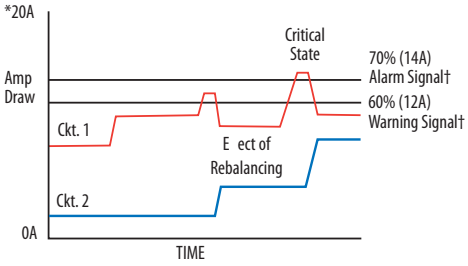
ATTENTION

H704 Series transducers are sold as an open device. Observe handling precautions for static sensitive devices to avoid damage to the circuitry which would not be covered under the factory warranty.

APPLICATION/WIRING EXAMPLES



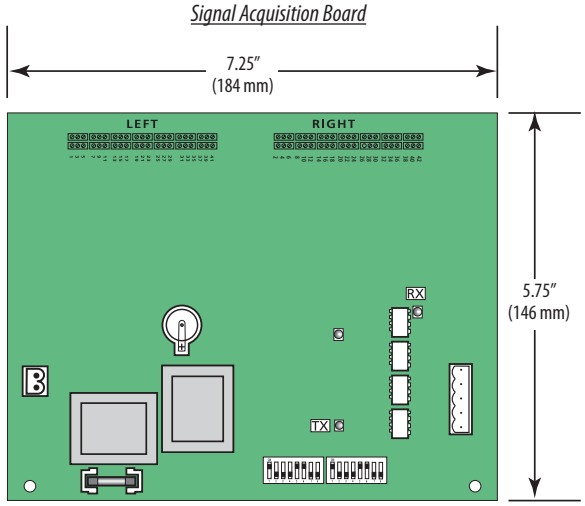
OPERATION EXAMPLE



**Example represents 20 Amp circuit*
†Configurable time delay for alarm and warning

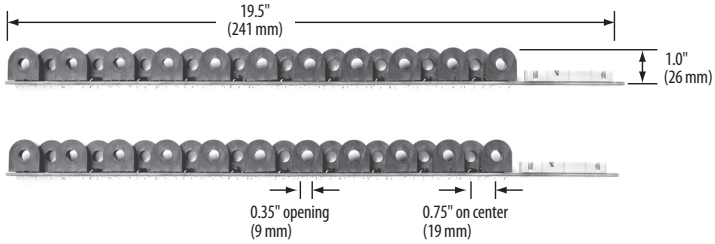
DIMENSIONAL DRAWING

Signal Acquisition Board



Current Sensor Strip

H704-42



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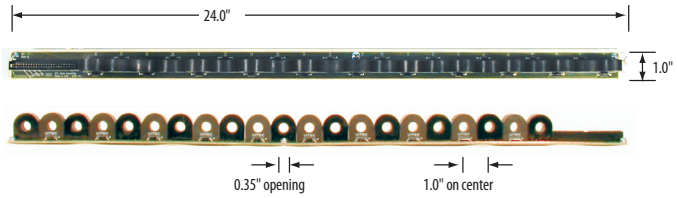
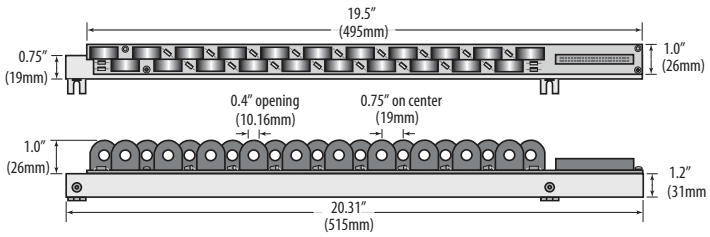


H704-xxH



ORDERING INFORMATION

MODEL	BREAKER SPACING	AMPERAGE RANGE	OUTPUT
H704-42	3/4" on center	10-50* (configurable)	RTU Modbus†
H704-42/1	1" on center	10-50* (configurable)	RTU Modbus†

For the 100A version, order the H704-42H or H704-42/1H.
For the 240VAC version, order the H704-42E or H704-42/1E.
For the 240VAC, 100A version, order the H704-42EH or H704-42/1EH.
For N2 protocol, order H726-xx.
Notes:
** Hole size accomodates up to 6 AWG (10mm2) THHN insulated conductors.*
† Other protocols available, consult factory.

ACCESSORIES

Network Display (H8936)

POWER/ENERGY MONITORING