H704 Series *Solid-Core Modbus® RTU Branch Circuit Monitor*

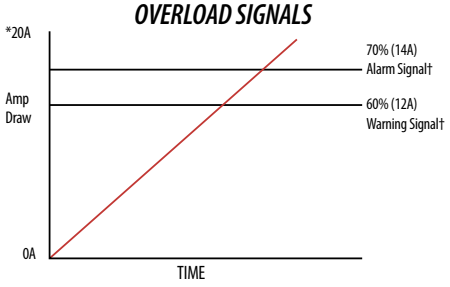
The Branch Circuit Current Monitoring System provides a cost-effective solution for electrical load management, making it ideally suited for applications where load capacity requirements are dynamic, such as the growing data storage industry, lighting panels, etc.

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 below). Additional capacity can then be added, or loads balanced, to prevent costly downtime from overloaded circuits and unexpected breaker trips. The H704 Series is a UL508 open type device without enclosure.

APPLICATIONS

- Load based cost allocation
- Overload protection
- Load management
- Load balancing
- Lighting circuits

OVERLOAD SIGNALS

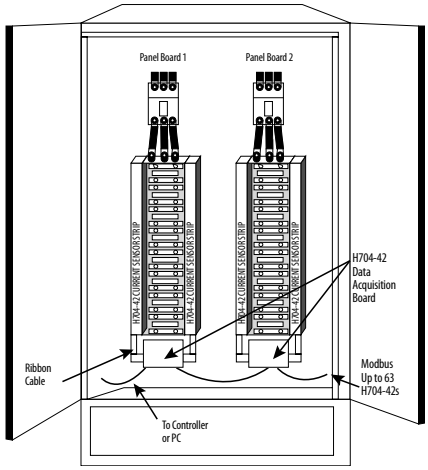


**Example represents 20 Amp circuit*
†Configurable time delay for alarm and warning

A simple solution for individual circuit current monitoring

- Up to 63 H704s can be networked on one Modbus RS-485 drop. . .simplified wiring
- Each H704-42 reports current consumed on each circuit in the panel board...one product covers multiple points
- 3/4 or 1 inch on center current sensors accomodate standard breakers...easy installation
- Provides Modbus registers for current limit warnings and alarms...prevents breaker trips
- Integrates with available network display for local indication

TYPICAL PANELBOARD INSTALLATION



ORDERING INFORMATION

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

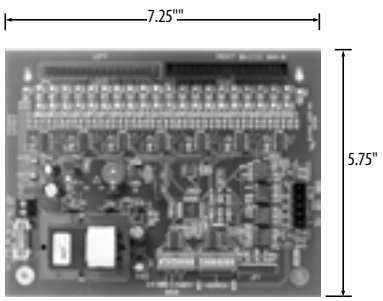
NOTES:
**Hole size accommodates up to #6 THHN insulated conductors.*
†Other protocols available, consult factory.
***For 240VAC version, order H704-42E or H704-42/1E*

LISTED 3T60 UL 508

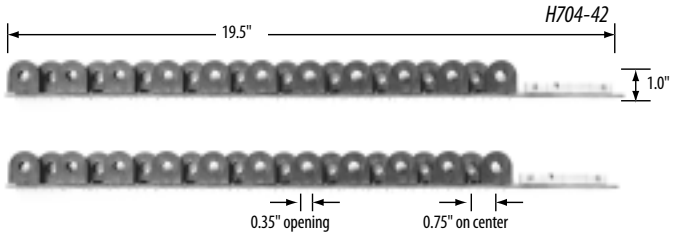
For N2 protocol version, order H726-xx

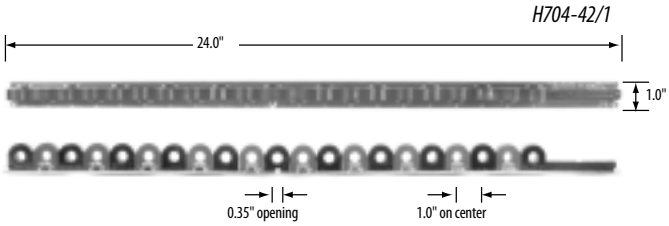
DIMENSIONAL DRAWINGS

Signal Aquisition Board



Current Sensor Strip





SPECIFICATIONS

General		
Operating Temp. Range	0 to 60°C (<95%RH, non-condensing)	
Storage Temp. Range	-40°C to 70°C	
Power Source	120VAC (+10/-25%) line-to-neutral, 50/60Hz. (240VAC for H704-42E/H704-42/1E)	
Measured Current Inputs		
Number of Channels	42	
Frequency	50/60Hz.	
Sample Frequency	1280Hz.	
Update Rate	1.2 sec	
Accuracy	±5% of reading from 5A to 50A	
Overload Capability	≤50A 10kAIC breaker curve	
Connection to Conductor	Solid-core toroid†	
Network Communications		
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	
Termination	5-position pluggable connector (TX+ TX- SHIELD TX+/RX+ TX-/RX-)	
Defaults		
Warning Register	60% of current sensor rating (configurable)	
Alarm Register	70% of current sensor rating (configurable)	
Current Setting	20 Amp	

Dimensions Circuit Board Only	*H704-42*	*H704-42/1*
CT Strips...(L x W)	19.5" x 1.0"	24.0" x 1.0"
Mainboard...(L x W)	7.25" x 5.75"	7.25" x 5.75"
Brackets Only		
CT Strips...(L x W)	20.31" x .75"	25.063"x.75"
Sensor Spacing	0.75" on center	1.0" on center

† Do not apply 600V Class current transformers to circuits having a phase-to-phase voltage greater than 600V, 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.

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