RIM-750 Modbus Communications

Thank you for purchasing the Remote Infrastructure Management (RIM-750) System from Chatsworth Products (CPI). Use this guide to configure the RIM-750's Modbus communications feature.

If, after referencing this guide, you need further assistance with the RIM-750 or its Modbus capabilities, please visit www.chatsworth.com/Products/Environmental-Monitoring-and-Security/RIM-750/, email technical support at (techsupport@chatsworth.com) or call us at +1-800-834-4969.

RIM-750

The RIM-750 uses Modbus TCP to communicate via Modbus. The RIM-750 is configured to act as a slave device on a common network and is a slave only device – it will never initiate a communications sequence.

Read Output Registers				
Register	Name	Description	Units	Range
40004	DI	Digital Input Alarm Status	1 or 0 (1=alarm; 0=normal)	0-65535
40009	FC	Family Code (External Sensor 1)	None	0-65535
40010	TC	Current Temperature Reading (External Sensor 1)	Celsius x 100	0-65535
40011	TH	High Temperature Threshold (External Sensor 1)	Celsius x 100	0-65535
40012	TL	Low Temperature Threshold (External Sensor 1)	Celsius x 100	0-65535
40013	HC	Current Humidity Reading (External Sensor 1)	% Relative Humidity	0-65535
40014	HH	High Humidity Threshold (External Sensor 1)	% Relative Humidity	0-65535
40015	HL	Low Humidity Threshold (External Sensor 1)	% Relative Humidity	0-65535
40016	FC	Family Code (External Sensor 2)	None	0-65535
40017	TC	Current Temperature Reading (External Sensor 2)	Celsius x 100	0-65535
40018	TH	High Temperature Threshold (External Sensor 2)	Celsius x 100	0-65535
40019	TL	Low Temperature Threshold (External Sensor 2)	Celsius x 100	0-65535
40020	HC	Current Humidity Reading (External Sensor 2)	% Relative Humidity	0-65535
40021	HH	High Humidity Threshold (External Sensor 2)	% Relative Humidity	0-65535
40022	HL	Low Humidity Threshold (External Sensor 2)	% Relative Humidity	0-65535
40023	FC	Family Code (External Sensor 3)	None	0-65535
40024	TC	Current Temperature Reading (External Sensor 3)	Celsius x 100	0-65535

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Read Output Registers				
40025	TH	High Temperature Threshold (External Sensor 3)	Celsius x 100	0-65535
40026	TL	Low Temperature Threshold (External Sensor 3)	Celsius x 100	0-65535
40027	HC	Current Humidity Reading (External Sensor 3)	% Relative Humidity	0-65535
40028	HH	High Humidity Threshold (External Sensor 3)	% Relative Humidity	0-65535
40029	HL	Low Humidity Threshold (External Sensor 3)	% Relative Humidity	0-65535
40030	FC	Family Code (External Sensor 4)	None	0-65535
40031	TC	Current Temperature Reading (External Sensor 4)	Celsius x 100	0-65535
40032	TH	High Temperature Threshold (External Sensor 4)	Celsius x 100	0-65535
40033	TL	Low Temperature Threshold (External Sensor 4)	Celsius x 100	0-65535
40034	HC	Current Humidity Reading (External Sensor 4)	% Relative Humidity	0-65535
40035	HH	High Humidity Threshold (External Sensor 4)	% Relative Humidity	0-65535
40036	HL	Low Humidity Threshold (External Sensor 4)	% Relative Humidity	0-65535
40038	TC	Current Temperature Reading (External Sensor 1)	Fahrenheit x 100	0-65535
40039	TH	High Temperature Threshold (External Sensor 1)	Fahrenheit x 100	0-65535
40040	TL	Low Temperature Threshold (External Sensor 1)	Fahrenheit x 100	0-65535
40045	TC	Current Temperature Reading (External Sensor 2)	Fahrenheit x 100	0-65535
40046	TH	High Temperature Threshold (External Sensor 2)	Fahrenheit x 100	0-65535
40047	TL	Low Temperature Threshold (External Sensor 2)	Fahrenheit x 100	0-65535
40052	TC	Current Temperature Reading (External Sensor 3)	Fahrenheit x 100	0-65535
40053	TH	High Temperature Threshold (External Sensor 3)	Fahrenheit x 100	0-65535
40054	TL	Low Temperature Threshold (External Sensor 3)	Fahrenheit x 100	0-65535
40059	TC	Current Temperature Reading (External Sensor 4)	Fahrenheit x 100	0-65535
40060	TH	High Temperature Threshold (External Sensor 4)	Fahrenheit x 100	0-65535
40061	TL	Low Temperature Threshold (External Sensor 4)	Fahrenheit x 100	0-65535
40071	LD	Leak is Detected	1 or 0 (1=leak detected; 0=no leak)	0-65535
40072	NS	No Sensing Cable is Connected to Controller	1 or 0 (1= no cable; 0=cable is connected)	0-65535
40073	CB	Cable Break Alarm	1 or 0 (1=cable break; 0=no cable break)	0-65535

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Alarm Condition Setting - Register 40003: SS		
Bit	Input	Setting
00	Digital Input 1	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
01	Digital Input 2	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
02	Digital Input 3	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
03	Digital Input 4	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
04	Digital Input 5	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
05	Digital Input 6	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
06	Digital Input 7	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
07	Digital Input 8	1 = Alarms when contact is closed. 0 = Alarms when contact is open.
08-15	Spare	

Current Alarm Status - Register 40005: AS		
Bit	Input	Setting
00	Digital Input 1	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
01	Digital Input 2	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
02	Digital Input 3	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
03	Digital Input 4	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
04	Digital Input 5	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
05	Digital Input 6	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
06	Digital Input 7	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
07	Digital Input 8	1 = Currently in alarm. 0 = In normal (non-alarm) condition.
08-15	Spare	

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