

Supporting the LLMUX with the MTL838C

Eaton has designed the MTL838C according to Honeywell LLMUX spec. To support Honeywell LLMUX with the existing installation, we propose the below workaround for easy configuration of the MTL838C.

1. The out-of-box default for the MTL838C will be Modbus mode. The following would need to be done for each MTL838C using the PC Software:
 - a. The HW user will need to switch the MTL838C to LLMUX mode (a single dropdown box).
 - b. They will then need to configure the number of 831Cs connected to the 838C.
By default both are enabled.
 - c. Finally select the input type for each MTL831 connected to the MTL838C.
mV/THC is the default but RTD may be selected instead.
2. The MTL838C will interpret the Configuration codes from the HW system exactly as documented previously for the MTL838B – EXCEPT that all RTDs will be assumed to be 3-wire type.
3. If the HW user wants to use a 2-wire or 4-wire RTD, they will have to use the PC software to configure the channels. The PC Software is the only way to change the number of wires for RTD types. This is selectable on a channel by channel basis.

The PC configuration options will be:

Index	Description	HW Codes
0	Not Configured (default)	De-configure command
1	Voltage (mV)	0x0C, 0x7E, 0x7F
2	2W RTD Ω	0x08, 0x09, 0x0A, 0x0B
3	3W RTD Ω	0x08, 0x09, 0x0A, 0x0B
4	4W RTD Ω	0x08, 0x09, 0x0A, 0x0B
5	TC, B, Temp, CJC	0x04
6	TC, E, Temp, CJC	0x02
7	TC, J, Temp, CJC	0x00
8	TC, K, Temp, CJC	0x01
9	TC, R, Temp, CJC	0x06
10	TC, S, Temp, CJC	0x05
11	TC, T, Temp, CJC	0x03

NOTES

1. The Not Configured mode would be implemented as mV in the 831s as they always have to be doing something.
2. The HW system does not ask the LLMUX to return the channel configuration code so multiple codes (that make the same measurement) can be represented by one input type.