Modbus® Holding Registers

2024

CET Digital Gas Detectors

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Critical Environment Technologies

MODBUS® HOLDING REGISTERS

The CGAS-D, CGAS-DP, LPT-M and LPT-P transmitters and the cGas-SC Self Contained Controller may be configured as part of a Modbus® RTU RS-485 network. In order for communication to be successful between devices, be sure your network connection is complete, the network termination switches are set appropriately and all the devices are configured with the same baud rate, character format, etc. Each device will have its own unique Modbus® ID.

NOTES:
- CGAS-D and CGAS-DP can have up to 2 gas channels (or 1 gas and 1 particulate channel) plus an RH channel and a Temperature channel
- The cGas-SC can have up to 3 gas channel plus a horn, strobe, buzzer, RH and Temperature channel
- The LPT-P does not support a relay.
- LPT-P and LPT-M can have up to 3 gas channels.

If you have specific requirements, have any questions or require clarification about these holding registers, please contact CET for assistance.

Holding Registers From 1 to 50,320

Register	Description	Information
1	Internal Relay 1 output status (excluding LPT-P)	
2	Internal Relay 2 output status (cGas-SC only)	

3	Strobe (cGas-SC only)		
4	Internal or External Buzzer (cGas-SC only)		
30,001	Channel 1 Reading	present reading x scaler	LEL, PPM, %VOL, µg/m3
30,004	Channel 1 Alarm Status		
30,005	Channel 2 Reading	present reading x scaler	LEL, PPM, %VOL, µg/m3
30,008	Channel 2 Alarm Status		
30,009	Channel 3 Reading	present reading x scaler	LEL, PPM, %VOL, DegC, DegF, %RH
30,012	Channel 3 Alarm Status		
30,013	Channel 4 Reading	present reading x scaler	LEL, PPM, %VOL, DegC, DegF, %RH
30,016	Channel 4 Alarm Status		
30,017	Channel 5 Reading	present reading x scaler	LEL, PPM, %VOL, µg/m3
30,020	Channel 5 Alarm Status		
40,101	Number of Relays present (excluding LPT-P)		

40,103	Number of Channels present	
41,013 to 41,028	Model Name	32 bytes
41,035 to 41,042	Serial Number	16 bytes
41,045	Firmware Version	
41,113	Modbus ID	if changed by program, may require Reset
41,114	Modbus Baud Rate	if changed by program, may require Reset
45,002	Relay On Delay (excluding LPT-P)	seconds
45,003	Relay Off Delay (excluding LPT-P)	seconds

CHANGING ANY VALUES IN THE CHANNEL HOLDING REGISTERS WILL VOID ANY CALIBRATION OR LIABILITY FOR CORRECT OPERATION. THESE VALUES ARE FOR REFERENCE ONLY.

Register	Description	Information
50,004	Sensor Scaler	multiplier (1, 10, 100, 1000)
50,005	Decimal Place	decimals (0, 1, 2)
50,008	Sensor Range	with scaler factor
50,011	Low Alarm Set Point	with scaler factor
50,012	Mid Alarm Set Point	with scaler factor
50,013	High Alarm Set Point	with scaler factor
50,025 to 50,027	Gas/Value Name	
50,028 to 50,030	Gas/Value Units	eg. LEL, PPM, %VOL, DegC, DegF, %RH
50,033	Priority Membership	
50,079	Channel 1 Warmup Timer	

Repeat 50,004 to 50,079 for each channel that is present. Each channel has an offset of 80 from the previous channel's equivalent register.

SAFER AIR EVERYWHERE.

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