



Product Announcement

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PARTICLE COUNTER PC2400 D



The System

Chemtrac's Particle Counter PC2400D is now supporting multiple communications protocols including Modbus standard protocol. Modbus is an industry-wide, serial communications "standard" supported by many PLC and industrial controls manufacturers. The physical connection is through a two-conductor, twisted-pair cable (RS-485).

The Particle Counter firmware can be upgraded (on production units prior to 2004) to the current version that has intelligent protocol detection. This allows the Particle Counter to automatically switch the communication protocols between Optomux and Modbus ASCII.

Available Protocols

- Optomux
- Modbus ASCII
- Modbus RTU
- Modbus/TCP (ETHERNET)
- Profibus DP
- Web Server Capability

Communication Solutions

- Web Server Capability: Use a web browser to read / write data and configure the PC2400D.
- Profibus DP: An industrial network system developed to replace centralized parallel wiring and prevailing analog signal transmission.

- Allows for communications to occur horizontally at the field level as well as vertically through the production and enterprise level.
- Modbus/TCP (ETHERNET): Ethernet protocol for standard automation software package (Wonderware, Intellution, and many others)
- Modbus ASCII / RTU: Standard automation software package
- Modified Optomux: TracWare and TracComm Software
- OPC Server: Standard OPC client software
- DDE Server: Standard DDE client software

Advantages

- Ease of integration with existing control automation system
- No gateway and integration required
- Provide simple, flexible solutions
- Standard features direct from Chemtrac – no "black box" required

Continued Support

Chemtrac will continue to support customers using TracWare, TracComm, OPC, and DDE software.

Modbus ASCII/RTU & MB/TCP Register Table for the PC2400D Particle Counter

Register Number	Register Address (Hex)		Name	Access	Range	Units	Data Type	Function Codes	Comments
	Start	End							
40001	0 (0000)		Analog Input 1	Read Only	0-65535		Integer	03	
40002	1 (0001)		Analog Input 2	Read	0-65535		Integer	03	
40003	2 (0002)		Analog Input 3	Read	0-65535		Integer	03	
40004	3 (0003)		Analog Input 4	Read	0-65535		Integer	03	
40005	4 (0004)			Read			Integer	03	Future Use
40006	5 (0005)		Cell Condition	Read	0-100	Percent	Integer	03	
40007	6 (0006)		Index	Read	0-1440		Integer	03	
40008	7 (0007)		Status	Read			Integer	03	
40009	8 (0008)		Flow	Read/Write	50-150	mL/min	Integer	03, 06, 16	Flow Rate
40010	9 (0009)		Frequency	Read/Write	5-300	Seconds	Integer	03, 06, 16	Frequency (60 Sec)
40011	10 (000A)		Period	Read/Write	5-30	Seconds	Integer	03, 06, 16	Sample Period (15 Sec)
40012	11 (000B)		Noise	Read			Integer	03	Calibrated Noise Threshold
40013	12 (000C)			Read			Integer	03	Future Use
40014	13 (000D)			Read			Integer	03	Future Use
40015	14 (000E)		Tag	Read			Integer	03	
40016	15 (000F)		Address	Read/Write	1-247		Integer	03, 06, 16	Unit Address
40017 to 40024	16-23 (0010 - 0017)		Size Ranges	Read/Write	0, 2-400	µm	Integer	03, 06, 16	
40025 to 40033	24-32 (0018 - 0020)		Particle Counts	Read	0-65535	counts/m _L	Integer	03	
40034 to 40042	33-42 (0021 - 002A)		Multipliers	Read	1, 10, 100		Integer	03	