Port 502, Modbus ID 50 (0x32)

Function Code

		Code (dec)	Code (hex)	Starting address (hex)	Starting address (dec)	Quantity
Bit access	Read Discrete Inputs	**02**	**02**	0x0000 to 0x02FF	0-767	0x0001-0x0300
	Read Coils	**01**	**01**	0x0500 to 0x06FF	1280-1791	0x0001-0x0200
	Write Single Coil	**05**	**05**	0x0500 to 0x06FF	1280-1791	0x0001-0x0200
	Write Multiple Coils	**15**	**0F**	0x0500 to 0x06FF	1280-1791	0x0001-0x0200
16 bits access	Read Input Register	**04**	**04**	0x00 to 0x2F	0-47	0x01-0x30
	Read Holding Registers	**03**	**03**	0x50 to 0x6F	80-111	0x01-0x20
	Write Single Register	**06**	**06**	0x50 to 0x6F	80-111	0x01-0x20
	Write Multiple Registers	**16**	**10**	0x50 to 0x6F	80-111	0x01-0x20

Addressing model

#	Name	Start address	Start address (hex)	Notes	Notes2	Notes3
Coil registers for reading by a master (Input registers, only READ)					
1	Status of spectrometer	0	0x00	1 - OK 0 - Faults OK - data transfer, light intensity and flow rate are in acceptable ranges.	coil	
2	Status of thermocontrollers	1	0x01	1 - OK 0 - Faults OK - all thermocontrollers keep temperature in their preset ranges	coil	
3	Availability for external request	2	0x02	1 - Ready 0 - Not ready	coil	
4	Status of Zero test	3	0x03	1 - Zero test is going 0 - Procedures differed from Zero test	coil	
5	Status of calibration	4	0x04	1 - Calibration is going 0 - Procedures differed from Calibration	coil	
	Reserved		0x05			
	Reserved		0x06			
	Reserved		0x07			
Float registers for reading by a master (Input registers, only READ)					
		LSW, MSW				
14	Code of a current mode	8,9	0x08,0x09	Start Level Cell Delay Cell Level Zero Delay Zero Test Total Mercury Delay Total Mercury Elemental Mercury Delay Elemental Mercury Pre-Calibration Delay Calibration Post-Calibration Delay Purge	5 7 8 11 12 21 22 26 27 31 32 33 13	
7	Total mercury	10,11	0x0A,0x0B	ug/m3		
8	Oxidized mercury	12,13	0x0C,0x0D	ug/m3		
9	Monitor flow	14,15	0x0E,0x0F	L/min		
10	Vacuum	16,17	0x10,0x11	psi		

						decimal	binary
11	Dilution pressure	18,19	0x12,0x13	psi, sensor not connected			
12	Bypass pressure	20,21	0x14,0x15	psi, sensor not connected, reserved			
13	Temperature of spectrometer	22,23	0x16,0x17	*C			
6	Elemental mercury	24,25	0x18,0x19	ug/m3			
	Reserved	26,27	0x1A,0x1B				
15	Errors and warnings	28,29	0x1C,0x1D	all OK ERROR: NO DATA ERROR: LOW LIGHT WARNING: LOW FLOW WARNING: CONVERTER WARNING: WATLOW1 WARNING: WATLOW2 32 (00100000) WARNING: WATLOW3 64 (01000000) WARNING: WATLOW4 128 (10000000) Possible to have several warnings simultaneously, e.g. 24 (00011000) means WARNING: CONVERTER and WARNING: WATLOW1	0 1 2 4 8 16 32 64 128	00000000 00000001 00000010 00000100 00001000 00010000 00100000 01000000 10000000
16	Calibr.coefficient	30,31	0x1E,0x1F	Total mercury coefficient			
	PMT_I	32,33	0x20,0x21	1,2 A5			
	PMT_V	40.41	0x28,0x29	5,6 A5			

Coil registers for writing by a master
(Holding registers, READ and WRITE)

	Reserved	80	0x50				
	Reserved	81	0x51				
	Reserved	82	0x52				
	Reserved	83	0x53				
	Reserved	84	0x54				
	TDL	85	0x55	секунды		20-120	?define
	EDL	86	0x56	секунды		20-120	?define
	RAL	87	0x57	секунды		5	?define
	PostCL	88	0x58	секунды		20	?define
	NCV	89	0x59	масштаб		100	?define
	CL	90	0x5A	секунды		20	?define
	PreCL	91	0x5B	секунды		20	?define
	ZTL	92	0x5C	секунды		20	?define
	FLOW_MIN	94	0x5D	Контроль		10	?define
	PMT_MIN	94	0x5E	Для поджига лампы		1500	?define
	ZDL	95	0x5F	секунды		5	?define
	Reserved	96	0x60				
	Reserved	97	0x61				
	Reserved	98	0x62				
17	Run calibration	99	0x63	Request to start calibration. Delay will be in the range 1 - 20 minutes since it can be started only when total mercury is determined.	coil		
18	Run zero test	100	0x64	Request to start a zero test. Delay will be in the range 1 - 20 minutes since it can be started only when total mercury is determined.	coil		
19	Run elemental	101	0x65	Request to start measurement of elemental mercury. Delay will be in the range 1 - 20 minutes since it can be started only when total mercury is determined.	coil		
20	Start Purge	102	0x66	Request to start purge.	coil		
21	End Purge	103	0x67	Request to end purge.	coil		
	Reserved	104	0x68				
	Reserved	105	0x69				
	Reserved	106	0x6A				
	Reserved	107	0x6B				
	Reserved	108	0x6C				
	Reserved	109	0x6D				
	Reserved	110	0x6E				
	Reserved	111	0x6F				