PSI 5000 A Series: register list for KE firmware V2.03 or higher (the currently installed version can only be determined by reading register 191 or opening the website)

Modbus address	Read coils (0x01)	Read holding registers (0x03)	Write single coil (0x05)	Write single register (0x06)	Write multiple registers (0x10)	Description	Access	Data type	Data length in bytes	Number of registers	Data	Example
0		x				Device class	R	uint(16)	2	1		29 = PSI5000
1		x				Device type	R	char	40	20	ASCII	PSI 5200-10 A
21		x				Manufacturer	R	char	40	20	ASCII	
41		x				Manufacturer address	R	char	40	20	ASCII	
61		x				Manufacturer ZIP code	R	char	40	20	ASCII	
81		x				Manufacterer phone number	R	char	40	20	ASCII	
101		x				Manufacturer website	R	char	40	20	ASCII	
121		x				Nominal voltage	R	float	4	2	Floating point number IEEE754	200
123		x				Nominal current	R	float	4	2	Floating point number IEEE754	10
125		x				Nominal power	R	float	4	2	Floating point number IEEE754	640
131		x				Article no.	R	char	40	20	ASCII	05100308
151		x				Serial no.	R	char	40	20	ASCII	100010002
171		x			x	User text	RW	char	40	20	ASCII	
191		x				Firmware version (KE)	R	char	40	20	ASCII	V2.01 09.12.2013
211		x				Firmware version (HMI)	R	char	40	20	ASCII	V2.02 09.12.2013
231		x				Firmware version (DR)	R	char	40	20	ASCII	V1.5.10
402	x		x			Remote mode	RW	uint(16)	2	1	Coils : Remote	0x0000 = off; 0xFF00 = on
405	x		x			DC output	RW	uint(16)	2	1	Coils : Output	0x0000 = off; 0xFF00 = on
411			x			Acknowledge alarms	W	uint(16)	2	1	Coils : Alarms	0xFF00 = acknowledge and purge
416	x		x			Analog interface: voltage range & reference voltage (VREF)	RW	uint(16)	2	1	Coils : VREF	0x0000 = 10V; 0xFF00 = 5V
417	x		x			Analog interface: REM-SB level	RW	uint(16)	2	1	Coils : REM-SB Level	0x0000 = normal; 0xFF00 = inverted
418	x		x			Analog interface: REM-SB action	RW	uint(16)	2	1	Coils : REM-SB Action	0x0000 = DC off; 0xFF00 = DC auto
500		x		x		Set voltage value	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Voltage value (for translation see programming guide)
501		x		x		Set current value	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Current value (for translation see programming guide)
502		x		x		Set power value	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Power value (for translation see programming guide)
505		x				Device state	R	uint(32)	4	2	Bit 0- 4: Control location	0x00 = free; 0x01 = local; 0x02 = remote; 0x03 = USB; 0x04 = analog; 0x06 = Ethernet
											Bit 5 : -	
											Bit 6 : -	
											Bit 7 : DC output	0 = off; 1 = on
											Bit 8 : -	
											Bit 10-9: Regulation mode	00 = CV; 10 = CC; 11 = CP
											Bit 11 : Remote	0 = off; 1 = on
											Bit 12 : -	
											Bit 13 : -	
											Bit 14 : Warning Sense	0 = none; 1 = active
											Bit 15 : Alarm	0 = no alarm active; 1 = at least one alarm active
											Bit 16 : Alarm OVP	0 = none; 1 = active
											Bit 17 : Alarm OCP	0 = none; 1 = active
											Bit 18 : Alarm OPP	0 = none; 1 = active
											Bit 19 : Alarm OT	0 = none; 1 = active
											Bit 20 : -	
											Bit 21 : -	
											Bit 22 : -	
											Bit 23 : Alarm PF	0 = none; 1 = active
											Bit 24 : -	
											Bit 25 : -	
											Bit 26 : -	
											Bit 27 : -	
											Bit 28 : -	
											Bit 29 : -	
											Bit 30 : REM-SB	0 = DC enabled; 1 = REM-SB disables power output
507		x				Actual voltage	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual voltage (for translation see programming guide)
508		x				Actual current	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual current (for translation see programming guide)
509		x				Actual power	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual power (for translation see programming guide)
520		x				Count of OV alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
521		x				Count of OC alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
522		x				Count of OP alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
523		x				Count of OT alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
524		x				Count of PF alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
550		x		x		Overvoltage protection threshold (OVP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OVP threshold (for translation see programming guide)
553		x		x		Overcurrent protection threshold (OCP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OCP threshold (for translation see programming guide)
556		x		x		Overpower protection threshold (OPP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OPP threshold (for translation see programming guide)
7100		x			x	Recall-set 1	RW	uint(16)	10	5	Bytes 0-1: 0x0000 - 0xCCCC (0 - 100%)	Voltage value (for translation see programming guide)
											Bytes 2-3: 0x0000 - 0xCCCC (0 - 100%)	Current value (for translation see programming guide)
											Bytes 4-5: 0x0000 - 0xE147 (0 - 110%)	Overvoltage value (OVP) (for translation see programming guide)
											Bytes 6-7: 0x0000 - 0xE147 (0 - 110%)	Overcurrent value (OCP) (for translation see programming guide)
											Bytes 8-9: -	Always 0x0000
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7140		x			x	Recall-set 9	RW	uint(16)	10	5	Bytes 0-1: 0x0000 - 0xCCCC (0 - 100%)	Voltage value (for translation see programming guide)
											Bytes 2-3: 0x0000 - 0xCCCC (0 - 100%)	Current value (for translation see programming guide)
											Bytes 4-5: 0x0000 - 0xE147 (0 - 110%)	Overvoltage value (OVP) (for translation see programming guide)
											Bytes 6-7: 0x0000 - 0xE147 (0 - 110%)	Overcurrent value (OCP) (for translation see programming guide)
											Bytes 8-9: -	Always 0x0000
7200				x		Recall set 1-9: select and submit	W	uint(16)	2	1	0x0001-0x0009	0x0001 = Submit the values from recall set 1
10008	x		x			Ethernet: DHCP	RW	uint(16)	2	1	Coils: DHCP on/off	0x0000 = off; 0xFF00 = on
10017		x				Ethernet: DHCP status	R	uint(16)	2	1	Coils: DHCP running	0 = manual; 1 = DHCP
10502		x			x	Ethernet: IP address	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	192.168.0.2 (default)
10504		x			x	Ethernet: Subnet mask	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	255.255.255.0 (default)
10506		x			x	Ethernet: Gateway	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	192.168.0.1 (default)
10508		x			x	Ethernet: Host name	RW	char	54	27	ASCII	"Client" (default)
10535		x			x	Ethernet: Domain name	RW	char	54	27	ASCII	"Workgroup" (default)
10562		x			x	Ethernet: DNS	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	0.0.0.0 (default)
10567		x				Ethernet: MAC	R	uint(8)	6	3	Bytes 0 - 5: 0..255	00:50:C2:C3:12:34 or 00-50-C2-C3-12-34
10572		x		x		Ethernet: Port	RW	uint(16)	2	1	0..65536 (except 80)	5025 (default)