PSI 5000 A Series: register list for KE firmware V2.01 or higher (the currently installed version can only be determined by reading register 191)

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		PSI 5200-10
21		x				Manufacturer	R	char	40	20		
41		x				Manufacturer address	R	char	40	20		
61		x				Manufacturer ZIP code	R	char	40	20		
81		x				Manufacterer phone number	R	char	40	20		
101		x				Manufacturer website	R	char	40	20		
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		05100308
151		x				Serial no.	R	char	40	20		100010002
171		x			x	User text	RW	char	40	20		
191		x				Firmware version (KE)	R	char	40	20		V2.01 09.12.2013
211		x				Firmware version (HMI)	R	char	40	20		V2.02 09.12.2013
231		x				Firmware version (DR)	R	char	40	20		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
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 : Alarm 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 23 : Alarm PF	0 = none; 1 = active
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)
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	Byte 0-1: 0x0000 - 0xCCCC (0 - 100%)	Voltage value (for translation see programming guide)
											Byte 2-3: 0x0000 - 0xCCCC (0 - 100%)	Current value (for translation see programming guide)
											Byte 4-5: 0x0000 - 0xE147 (0 - 110%)	Overvoltage value (OVP) (for translation see programming guide)
											Byte 6-7: 0x0000 - 0xE147 (0 - 110%)	Overcurrent value (OCP) (for translation see programming guide)
											Byte 8-9: -	Always 0x0000
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7140		x			x	Recall-set 9	RW	uint(16)	10	5	Byte 0-1: 0x0000 - 0xCCCC (0 - 100%)	Voltage value (for translation see programming guide)
											Byte 2-3: 0x0000 - 0xCCCC (0 - 100%)	Current value (for translation see programming guide)
											Byte 4-5: 0x0000 - 0xE147 (0 - 110%)	Overvoltage value (OVP) (for translation see programming guide)
											Byte 6-7: 0x0000 - 0xE147 (0 - 110%)	Overcurrent value (OCP) (for translation see programming guide)
											Byte 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	Bit0: DHCP running	0 = manual; 1 = DHCP
10502		x			x	Ethernet: IP address	RW	uint(8)	4	2	Byte 0 - 3: 0..255	192.168.0.2 (default)
10504		x			x	Ethernet: Subnet mask	RW	uint(8)	4	2	Byte 0 - 3: 0..255	255.255.255.0 (default)
10506		x			x	Ethernet: Gateway	RW	uint(8)	4	2	Byte 0 - 3: 0..255	192.168.0.1 (default)
10508		x			x	Ethernet: Host name	RW	char	54	27		"Client" (default)
10535		x			x	Ethernet: Domain name	RW	char	54	27		"Workgroup" (default)
10562		x			x	Ethernet: DNS	RW	uint(8)	4	2	Byte 0 - 3: 0..255	0.0.0.0 (default)
10567		x				Ethernet: MAC	R	uint(8)	6	3	Byte 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)