PSI 5000 register list for devices with KE firmware from V3.04 (check the installed version by reading register 191)

Modbus address	Read coils (0x01)	Read holding registers	Write single coil (0x05)	Write single register (0x06)	Write multiple registers	Description	Access	Data type	Data length in bytes	Number of registers	Data	Example or description
0		x				Geräteklasse	R	uint(16)	2	1		29 = PSI 5000
1		x				Gerätetyp	R	char	40	20	ASCII	PSI 5040-40
21		x				Hersteller	R	char	40	20	ASCII	
41		x				Hersteller Strasse	R	char	40	20	ASCII	
61		x				Hersteller PLZ	R	char	40	20	ASCII	
81		x				Hersteller Telefonnummer	R	char	40	20	ASCII	
101		x				Hersteller Webseite	R	char	40	20	ASCII	
121		x				Gerätenennspannung	R	float	4	2	Floating point number IEEE754	40
123		x				Gerätenennstrom	R	float	4	2	Floating point number IEEE754	40
125		x				Gerätenennleistung	R	float	4	2	Floating point number IEEE754	640
131		x				Artikelnummer	R	char	40	20	ASCII	05100406
151		x				Seriennummer	R	char	40	20	ASCII	1234567890
171		x			x	Benutzertext	RW	char	40	20	ASCII	
191		x				Firmwareversion (KE)	R	char	40	20	ASCII	V3.04 10.05.2017
211		x				Firmwareversion (HMI)	R	char	40	20	ASCII	V2.05 23.01.2017
231		x				Firmwareversion (DR)	R	char	40	20	ASCII	V1.0.20 23.03.2017
402	x		x			Fernsteuerungsmodus	RW	uint(16)	2	1	Coils : Remote	0x0000 = off; 0xFF00 = on
405	x		x			DC-Ausgang / DC-Eingang	RW	uint(16)	2	1	Coils : Output/input	0x0000 = off; 0xFF00 = on
407	x		x			Zustand DC-Ausgang/-EIngang nach Alarm Power Fail	RW	uint(16)	2	1	Coils : Auto on	0x0000 = off; 0xFF00 = auto-on
408		x		x		Zustand DC-Ausgang/-Eingang nach Einschalten des Gerätes	RW	uint(16)	2	1	Reg : Power on	0xFFFF = off; 0xFFFE = Restore
410	x		x			Neustart des Gerätes (Warmstart)	W	uint(16)	2	1	Coils : Restart	0xFF00 = execute
411	x		x			Alarme quittieren	W	uint(16)	2	1	Coils : Alarms	0xFF00 = acknowledge
416	x		x			Analogschnittstelle: Referenzspannung (Pin VREF)	RW	uint(16)	2	1	Coils : VREF	0x0000 = 10V; 0xFF00 = 5V
417	x		x			Analogschnittstelle: REM-SB Pegel	RW	uint(16)	2	1	Coils : REM-SB Level	0x0000 = normal; 0xFF00 = inverted
418	x		x			Analogschnittstelle: REM-SB Verhalten	RW	uint(16)	2	1	Coils : REM-SB Action	0x0000 = DC off; 0xFF00 = DC auto
425	x		x			DC-Ausgang/Eingang nach Verlassen der Fernsteuerung	RW	uint(16)	2	1	Coils : Condition	0x0000 = off; 0xFF00 = unchanged
500		x		x		Sollwert Spannung	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
501		x		x		Sollwert Strom	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)
502		x		x		Sollwert Leistung	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Power value (for translation see programming guide)
505		x				Gerätestatus	R	uint(32)	4	2	Bit 0- 4: Control location	0x00 = free; 0x01 = local; 0x02 = remote; 0x03 = USB; 0x04 = analog; 0x06 = Ethernet
											Bit 5 : Config mode	0 = off; 1 = active
											Bit 7 : DC output/input state	0 = off; 1 = on
											Bit 9-10 : Regulation mode	00 = CV; 01 = CR; 10 = CC; 11 = CP
											Bit 11 : Remote	0 = off; 1 = on
											Bit 14 : Remote sensing	0 = off; 1 = on
											Bit 15 : Alarms	0 = none; 1 = active
											Bit 16 : OVP	0 = none; 1 = active
											Bit 17 : OCP	0 = none; 1 = active
											Bit 18 : OPP	0 = none; 1 = active
											Bit 19 : OT	0 = none; 1 = active
											Bit 21 : Power fail	0 = none; 1 = active
											Bit 30 : REM-SB	0 = DC enabled; 1 = REM-SB disables DC output/input
507		x		x		Istwert Spannung	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual voltage (for translation see programming guide)
508		x		x		Istwert Strom	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual current (for translation see programming guide)
509		x				Istwert Leistung	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual power (for translation see programming guide)
520		x				Anzahl von OV-Alarmen seit Start des Gerätes	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
521		x				Anzahl von OC-Alarmen seit Start des Gerätes	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
522		x				Anzahl von OP-Alarmen seit Start des Gerätes	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
523		x				Anzahl von OT-Alarmen seit Start des Gerätes	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
524		x				Anzahl von PF-Alarmen seit Start des Gerätes	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
550		x		x		Überspannungsschutzschwelle (OVP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OVP threshold (for translation see programming guide)
553		x		x		Überstromschutzschwelle OCP	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OCP threshold (for translation see programming guide)
556		x		x		Überleistungsschutzschwelle 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 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
												Current value (for translation see programming guide)
												Overvoltage value (OVP) (for translation see programming
												Overcurrent value (OCP) (for translation see programming
												Always 0x0000
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7140		x			x	Recall set 9	RW	uint(16)	10	5	Bytes 0-1: 0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
												Current value (for translation see programming guide)
												Overvoltage value (OVP) (for translation see programming
												Overcurrent value (OCP) (for translation see programming
												Always 0x0000
7200				x		Recall set 1-9: select, submit and save	W	uint(16)	2	1	0x0001-0x0009	0x0001 = Submit and save the values from recall set 1
10007	x		x			Ethernet: TCP Keep-Alive	RW	uint(16)	2	1	Coils: Keep-alive on/off	0x0000 = off; 0xFF00 = on
10008	x		x			Ethernet: DHCP	RW	uint(16)	2	1	Coils: DHCP on/off	0x0000 = off; 0xFF00 = on
10010	x		x			Protokoll: Modbus	RW	uint(16)	2	1	Coils: MODBUS on/off	0x0000 = off; 0xFF00 = on
10011	x		x			Protokoll: SCPI	RW	uint(16)	2	1	Coils: SCPI 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: Netzwerkadresse	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	192.168.0.2 (default)
10504		x			x	Ethernet: Subnetzmaske	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	255.255.255.0 (Standard)
10506		x			x	Ethernet: Gateway	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	192.168.0.1 (default)
10508		x			x	Ethernet: Hostname	RW	char	54	27	ASCII	"Client" (default)
10535		x			x	Ethernet: Domäne	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)
10566		x		x		USB: Verbindungs-Timeout (in Millisekunden)	RW	uint(16)	2	1	5..65535	Default: 5 ms
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: Portnummer	RW	uint(16)	2	1	0..65536 (except 80)	5025 (default)
10573		x		x		Ethernet: TCP-Socket-Timeout (in Sekunden)	RW	uint(16)	2	1	5..65535	Default: 5 s