PSI 9000 T/DT register list for devices with KE firmware from V3.05 (check the installed version in your device's MENU in item INFO HW, SW)

ModBus address (dec)	ModBus address (hex)	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 or description
0	0x0000		x				Device class	R	uint(16)	2	1		42 = PSI 9000 DT Series, 50 = PSI 9000 T
1	0x0001		x				Device type	R	char	40	20	ASCII	PSI 9080-60 DT
21	0x0015		x				Manufacturer	R	char	40	20	ASCII	
41	0x0029		x				Manufacturer address	R	char	40	20	ASCII	
61	0x003D		x				Manufacturer ZIP code	R	char	40	20	ASCII	
81	0x0051		x				Manufacturer phone number	R	char	40	20	ASCII	
101	0x0065		x				Manufacturer website	R	char	40	20	ASCII	
121	0x0079		x				Nominal voltage	R	float	4	2	Floating point number IEEE754	80
123	0x007B		x				Nominal current	R	float	4	2	Floating point number IEEE754	60
125	0x007D		x				Nominal power	R	float	4	2	Floating point number IEEE754	1500
127	0x007F		x				Max. Internal resistance	R	float	4	2	Floating point number IEEE754	40
129	0x0081		x				Min. Internal resistance	R	float	4	2	Floating point number IEEE754	0.05
131	0x0083		x				Article no.	R	char	40	20	ASCII	06200511
151	0x0097		x				Serial no.	R	char	40	20	ASCII	1234567890
171	0x00AB		x			x	User text	RW	char	40	20	ASCII	
191	0x00BF		x				Firmware version (KE)	R	char	40	20	ASCII	V3.02 16.08.2016
211	0x00D3		x				Firmware version (HMI)	R	char	40	20	ASCII	V2.08 22.09.2016
231	0x00E7		x				Firmware version (DR)	R	char	40	20	ASCII	V1.0.4.1 30.06.2016
402	0x0192	x		x			Remote mode	RW	uint(16)	2	1	Coils : Remote	0x0000 = off; 0xFF00 = on
405	0x0195	x		x			DC output	RW	uint(16)	2	1	Coils : Output/input	0x0000 = off; 0xFF00 = on
407	0x0197	x		x			Condition of DC output after PF alarm	RW	uint(16)	2	1	Coils : Condition	0x0000 = off; 0xFF00 = auto
408	0x0198		x		x		Condition of DC output after power ON	RW	uint(16)	2	1	Reg : Condition	0xFFFF = off; 0xFFFE = Restore
409	0x0199	x		x			Operation mode (UIP/UIR)	RW	uint(16)	2	1	Coils : Operation mode	0x0000 = UIP; 0xFF00 = UIR
410	0x019A	x		x			Restart of the device (warm start)	W	uint(16)	2	1	Coils : Restart	0xFF00 = execute
411	0x019B	x		x			Acknowledge alarms	W	uint(16)	2	1	Coils : Alarms	0xFF00 = acknowledge
416	0x01A0	x		x			Analog interface: Reference voltage (pin VREF)	RW	uint(16)	2	1	Coils : VREF	0x0000 = 10V; 0xFF00 = 5V
417	0x01A1	x		x			Analog interface: REM-SB level	RW	uint(16)	2	1	Coils : REM-SB Level	0x0000 = normal; 0xFF00 = inverted
418	0x01A2	x		x			Analog interface: REM-SB action	RW	uint(16)	2	1	Coils : REM-SB Action	0x0000 = DC off; 0xFF00 = DC on/off
425	0x01A9	x		x			Condition of DC output after leaving remote	RW	uint(16)	2	1	Coils : Condition	0x0000 = off; 0xFF00 = auto
440	0x01B8		x		x		Analog interface: Pin 14 configuration	RW	uint(16)	2	1	Reg: Alarms 1	0x0000 = OVP (default); 0x0001 = OCP; 0x0002 = OPP; 0x0003 = OVP + OCP; 0x0004 = OVP + OPP; 0x0005 = OCP + OPP; 0x0006 = OVP + OCP + OPP
441	0x01B9		x		x		Analog interface: Pin 6 configuration	RW	uint(16)	2	1	Reg: Alarms 2	0x0000 = OT + PF (default); 0x0001 = OT; 0x0002 = PF
442	0x01BA		x		x		Analog interface: Pin 15 configuration	RW	uint(16)	2	1	Reg: Status DC	0x0000 = CV; 0x0001 = DC on/off
500	0x01F4		x		x		Set voltage value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
501	0x01F5		x		x		Set current value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)
502	0x01F6		x		x		Set power value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Power value (for translation see programming guide)
503	0x01F7		x		x		Set resistance value	RW	uint(16)	2	1	minimum - 0xD0E5 (x - 102%)	Resistance value (the minimum value varies from model to model and can be calculated from the technical specification in the manual)
505	0x01F9		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 7 : DC 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 13 : Function generator	0 = stopped ; 1 = running
												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 22 : Power fail	0 = none; 1 = active
												Bit 23 : Power fail	0 = none; 1 = active
												Bit 24 : UVD	0 = none; 1 = active
												Bit 25 : OVD	0 = none; 1 = active
												Bit 26 : UCD	0 = none; 1 = active
												Bit 27 : OCD	0 = none; 1 = active
												Bit 28 : OPD	0 = none; 1 = active
												Bit 30 : REM-SB	0 = DC enabled; 1 = REM-SB disables DC output/input
507	0x01FB		x				Actual voltage	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual voltage (for translation see programming guide)
508	0x01FC		x				Actual current	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual current (for translation see programming guide)
509	0x01FD		x				Actual power	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual power (for translation see programming guide)
520	0x0208		x				Count of OV alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
521	0x0209		x				Count of OC alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
522	0x020A		x				Count of OP alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
523	0x020B		x				Count of OT alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
524	0x020C		x				Count of PF alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
550	0x0226		x		x		Overvoltage protection threshold (OVP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OVP threshold (for translation see programming guide)
553	0x0229		x		x		Overcurrent protection threshold (OCP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OCP threshold (for translation see programming guide)
556	0x022C		x		x		Overpower protection threshold (OPP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OPP threshold (for translation see programming guide)
559	0x022F		x		x		Undervoltage detection (UVD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	UVD threshold (for translation see programming guide)
560	0x0230		x		x		Adjustable UVD notification	RW	uint(16)	2	1	Reg : Adjustable UVD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm
561	0x0231		x		x		Overvoltage detection (OVD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	OVD threshold (for translation see programming guide)
562	0x0232		x		x		Adjustable OVD notification	RW	uint(16)	2	1	Reg : Adjustable OVD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm
563	0x0233		x		x		Undercurrent detection (UCD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	UCD threshold (for translation see programming guide)
564	0x0234		x		x		Adjustable UCD notification	RW	uint(16)	2	1	Reg : Adjustable UCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm
565	0x0235		x		x		Overcurrent detection (OCD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	OCD threshold (for translation see programming guide)
566	0x0236		x		x		Adjustable OCD notification	RW	uint(16)	2	1	Reg : Adjustable OCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm
567	0x0237		x		x		Overpower detection (OPD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	OPD threshold (for translation see programming guide)
568	0x0238		x		x		Adjustable OPD notification	RW	uint(16)	2	1	Reg : Adjustable OPD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm
577	0x0241		x		x		Condition of DC output after OT alarm	RW	uint(16)	2	1	Reg: Condition	0x0000 = off; 0x0001 = Restore
850	0x0352	x		x			Function generator Arbitrary: Start/stop	RW	uint(16)	2	1	Coils : Start/Stop	0x0000 = Stop; 0xFF00 = Start
851	0x0353	x		x			Function generator Arbitrary: Select U	RW	uint(16)	2	1	Coils : Select U	0x0000 = not assigned; 0xFF00 = Assign function to voltage
852	0x0354	x		x			Function generator Arbitrary: Select I	RW	uint(16)	2	1	Coils : Select I	0x0000 = not assigned; 0xFF00 = Assign function to current
859	0x035B		x		x		Function generator Arbitrary: Start sequence	RW	uint(16)	2	1	0x0001...0x0064	
860	0x035C		x		x		Function generator Arbitrary: End sequence	RW	uint(16)	2	1	0x0001...0x0064	
861	0x035D		x		x		Function generator Arbitrary: Sequence cycles	RW	uint(16)	2	1	0x0000...0x03E7	0x0000 = infinite
900	0x0384		x			x	Function generator Arbitrary: Setup for sequence 1	RW	float	32	16	Bytes 0-3: Us/Is(AC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator
												Bytes 4-7: Ue/Ie(AC) in V	
												Bytes 8-11: fs(1/T) in Hz	Integer in IEEE754 format: 0...10000Hz
												Bytes 12-15: fe(1/T) in Hz	
												Bytes 16-19: Angle in degrees	Integer in IEEE754 format: 0°...359°
												Bytes 20-23: Us/Is(DC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator
												Bytes 24-27: Ue/Ie(DC) in V	
												Bytes 28-31: Sequence time in µs	1...36000000 (36 Mio.)
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
2468	0x09A4		x			x	Function generatorArbitrary: Setup for sequence 99	RW	float	32	16	Bytes 0-3: Us/Is(AC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator
												Bytes 4-7: Ue/Ie(AC) in V	
												Bytes 8-11: fs(1/T) in Hz	Integer in IEEE754 format: 0...10000Hz
												Bytes 12-15: fe(1/T) in Hz	
												Bytes 16-19: Angle in degrees	Integer in IEEE754 format: 0°...359°
												Bytes 20-23: Us/Is(DC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator
												Bytes 24-27: Ue/Ie(DC) in V	
												Bytes 28-31: Sequence time in µs	1...36000000 (36 Mio.)
9000	0x2328		x		x		Upper limit of voltage set value (U-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
9001	0x2329		x		x		Lower limit of voltage set value (U-min)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
9002	0x232A		x		x		Upper limit of current set value (I-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)
9003	0x232B		x		x		Lower limit of current set value (I-min)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)
9004	0x232C		x		x		Upper limit of power set value (P-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Power value (for translation see programming guide)
9006	0x232E		x		x		Upper limit of resistance set value (R-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Resistance value (for translation see programming guide)
10007	0x2717	x		x			Ethernet: TCP keep-alive	RW	uint(16)	2	1	Coils: Keep-alive on/off	0x0000 = off; 0xFF00 = on
10008	0x2718	x		x			Ethernet: DHCP	RW	uint(16)	2	1	Coils: DHCP on/off	0x0000 = off; 0xFF00 = on
10010	0x271A	x		x			Protocol: Modbus	RW	uint(16)	2	1	Coils: MODBUS on/off	0x0000 = off; 0xFF00 = on
10011	0x271B	x		x			Protocol: SCPI	RW	uint(16)	2	1	Coils: SCPI on/off	0x0000 = off; 0xFF00 = on
10017	0x2721		x				Ethernet: DHCP status	R	uint(16)	2	1	Bit0: DHCP running	0 = manual; 1 = DHCP
10502	0x2906		x			x	Ethernet: IP address	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	192.168.0.2 (default)
10504	0x2908		x			x	Ethernet: Subnet mask	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	255.255.255.0 (Standard)
10506	0x290A		x			x	Ethernet: Gateway	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	192.168.0.1 (default)
10508	0x290C		x			x	Ethernet: Host name	RW	char	54	27	ASCII	"Client" (default)
10535	0x2927		x			x	Ethernet: Domain name	RW	char	54	27	ASCII	"Workgroup" (default)
10562	0x2942		x			x	Ethernet: DNS	RW	uint(8)	4	2	Bytes 0 - 3: 0..255	0.0.0.0 (default)
10566	0x2946		x		x		USB: Connection timeout (in milliseconds)	RW	uint(16)	2	1	5..65535	Default: 5 ms
10567	0x2947		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	0x294C		x		x		Ethernet: Port	RW	uint(16)	2	1	0..65536 (except 80)	5025 (default)
10573	0x294D		x		x		Ethernet: TCP Socket timeout (in seconds)	RW	uint(16)	2	1	5..65535, 0 = inactive	Default: 5 s