

EL 9000 T/DT register list for devices with KE firmware from V3.03 (check the installed version in your device's MENU in item INFO HW, SW)																		
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
0	x																	
												Device class	R	uint(16)	2	1	44 = EL 9000 DT series, 51 = EL 9000 T series	
												Device type	R	char	40	20	ASCII	
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											Manufacturer 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	
123	x											Nominal current	R	float	4	2	Floating point number IEEE754	
125	x											Nominal power	R	float	4	2	Floating point number IEEE754	
127	x											Max. Internal resistance	R	float	4	2	Floating point number IEEE754	
129	x											Min. Internal resistance	R	float	4	2	Floating point number IEEE754	
131	x											Article no.	R	char	40	20	ASCII	
151	x											Serial no.	R	char	40	20	ASCII	
171	x											User text	RW	char	40	20	ASCII	
191	x											Firmware version (KE)	R	char	40	20	ASCII	
211	x											Firmware version (HMI)	R	char	40	20	ASCII	
231	x											Firmware version (DR)	R	char	40	20	ASCII	
402	x			x								Remote mode	RW	uint(16)	2	1	Coils : Remote 0x0000 = off; 0xFF00 = on	
405	x			x								DC input	RW	uint(16)	2	1	Coils : Output/input 0x0000 = off; 0xFF00 = on	
407	x			x								Condition of DC input after power fail alarm	RW	uint(16)	2	1	Coils : Auto-On 0x0000 = off; 0xFF00 = auto-on	
408	x			x		x						Condition of DC input after powering the device	RW	uint(16)	2	1	Coils : Power-On 0xFFFF = off; 0xFFFE = Restore	
409	x			x								Operation mode (UIP/UIR)	RW	uint(16)	2	1	Coils : Operation mode 0x0000 = UIP; 0xFF00 = UIR	
410	x			x								Restart of the device (warm start)	W	uint(16)	2	1	Coils : Restart 0xFF00 = execute	
411	x			x								Acknowledge alarms	W	uint(16)	2	1	Coils : Alarms 0xFF00 = acknowledge	
416	x			x								Analog interface: Reference voltage (pin 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	
425	x			x								DC input after leaving remote	RW	uint(16)	2	1	Coils : Condition 0x0000 = off (default); 0xFF00 = unchanged	
500	x			x								Set voltage value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) Voltage value (for translation see programming guide)	
501	x			x								Set current value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) Current value (for translation see programming guide)	
502	x			x								Set power value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) Power value (for translation see programming guide)	
503	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		x										Device state	R	uint(32)	4	2	Bit 0- 4: Control location 0x00 = frei; 0x01 = lokat; 0x02 = fern; 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 13 : Function mode 0 = off; 1 = on Bit 14 : External sense 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	x			x								Actual voltage	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%) Actual voltage (for translation see programming guide)	
508	x			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)	
559	x			x								Undervoltage detection (UVD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) UVD threshold (for translation see programming guide)	
560	x			x								Adjustable UVD notification	RW	uint(16)	2	1	Coils : Adjustable UVD notification 0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	
561	x			x								Overvoltage detection (OVD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) OVD threshold (for translation see programming guide)	
562	x			x								Adjustable OVD notification	RW	uint(16)	2	1	Coils : Adjustable OVD notification 0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	
563	x			x								Undercurrent detection (UCD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) UCD threshold (for translation see programming guide)	
564	x			x								Adjustable UCD notification	RW	uint(16)	2	1	Coils : Adjustable UCD notification 0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	
565	x			x								Overcurrent detection (OCD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) OCD threshold (for translation see programming guide)	
566	x			x								Adjustable OCD notification	RW	uint(16)	2	1	Coils : Adjustable OCD notification 0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	
567	x			x								Overpower detection (OPD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%) OPD threshold (for translation see programming guide)	
568	x			x								Adjustable OPD notification	RW	uint(16)	2	1	Coils : Adjustable OPD notification 0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	
850	x			x								Function generator Arbitrary: Start/stop	RW	uint(16)	2	1	Coils : Start/Stop 0x0000 = Stop; 0xFF00 = Start	
851	x			x								Function generator Arbitrary: Select U	RW	uint(16)	2	1	Coils : Select U 0x0000 = not assigned; 0xFF00 = Assign function to voltage	
852	x			x								Function generator Arbitrary: Select I	RW	uint(16)	2	1	Coils : Select I 0x0000 = not assigned; 0xFF00 = Assign function to current	
859	x			x								Function generator Arbitrary: Start sequence	RW	uint(16)	2	1	0x0001...0x0064	
860	x			x								Function generator Arbitrary: End sequence	RW	uint(16)	2	1	0x0001...0x0064	
861	x			x								Function generator Arbitrary: Sequence cycles	RW	uint(16)	2	1	0x0000...0x03E7	
900	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 Integer in IEEE754 format: 0...10000Hz Bytes 8-11: fs(1/T) in Hz Integer in IEEE754 format: 0...10000Hz Bytes 12-15: fe(1/T) in Hz Integer in IEEE754 format: 0°...359° 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 Integer in IEEE754 format: 0...10000Hz Bytes 28-31: Sequence time in µs 1...36000000 (36 Mio.)	
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
2484		x						x				Function generatorArbitrary: Setup for sequence 100	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 Integer in IEEE754 format: 0...10000Hz Bytes 8-11: fs(1/T) in Hz Integer in IEEE754 format: 0...10000Hz Bytes 12-15: fe(1/T) in Hz Integer in IEEE754 format: 0°...359° 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 Integer in IEEE754 format: 0...10000Hz Bytes 28-31: Sequence time in µs 1...36000000 (36 Mio.)	
9000	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	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	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	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	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	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	x			x								Ethernet: TCP keep-alive timeout	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								Protocol: Modbus	RW	uint(16)	2	1	Coils: MODBUS on/off 0x0000 = off; 0xFF00 = on	
10011	x			x								Protocol: 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: 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 (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: 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)	
10566	x			x								USB: Connection timeout (in milliseconds)	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: Port	RW	uint(16)	2	1	0.65536 (except 80) 5025 (default)	
10573	x					x						Ethernet: TCP Socket timeout (in seconds) Ethernet: TCP keep-alive time (in seconds)	RW	uint(16)	2	1	5.65535 Default: 5 s	
11000	x					x						MPP Tracking: MPP-Mode	RW	uint(16)	2	1	0..4 0 (default), 1 (MPP1), 2 (MPP2), 3 (MPP3), 4 (MPP4)	
11001	x					x						MPP Tracking: Uoc (Setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%) Voltage value in % of Unom (for translation see programming guide)	
11002	x					x						MPP Tracking: Isc (Setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%) Current value in % of Inom (for translation see programming guide)	
11003	x					x						MPP Tracking: Umpp (Setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%) Voltage value in % of Unom (for translation see programming guide)	
11004	x					x						MPP Tracking: Imp (Setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%) Current value in % of Inom (for translation see programming guide)	
11005	x					x						MPP Tracking: Pmpp (Setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%) Power value in % of Pnom (for translation see programming guide)	
11006	x			</														