

ELR 9000 3U / EL 9000 B register list for devices with KE firmware from V2.23 (standard) or V2.07 (with GPIB)															
(check the installed version in your device's MENU in item ABOUT HW, SW)															
Module 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	Profibus slot / Profinet subnet	Profibus/Profinet index in slot	EtherCAT SDO/DDO?
0	x					Device class	R	uint(16)	2	1		20, 32, 34, 36 = ELR 9000 39 = EL 9000 B	1	0	x
1	x					Device type	R	char	40	20	ASCII	ELR 9080-170	1	1	x
21	x					Manufacturer	R	char	40	20	ASCII		1	2	x
41	x					Manufacturer address	R	char	40	20	ASCII		1	3	x
61	x					Manufacturer ZIP code	R	char	40	20	ASCII		1	4	x
81	x					Manufacturer phone number	R	char	40	20	ASCII		1	5	x
101	x					Manufacturer website	R	char	40	20	ASCII		1	6	x
121	x					Nominal voltage	R	float	4	2	Floating point number IEEE754	80	1	7	x
123	x					Nominal current	R	float	4	2	Floating point number IEEE754	170	1	8	x
125	x					Nominal power	R	float	4	2	Floating point number IEEE754	3500	1	9	x
127	x					Max. Internal resistance	R	float	4	2	Floating point number IEEE754	12	1	10	x
129	x					Min. Internal resistance	R	float	4	2	Floating point number IEEE754	0.005	1	11	x
131	x					Article no.	R	char	40	20	ASCII	3320401	1	12	x
151	x					Serial no.	R	char	40	20	ASCII	100010002	1	13	x
171	x			x		User text	RW	char	40	20	ASCII		1	14	x
191	x					Firmware version (KE)	R	char	40	20	ASCII	V2.01 05.09.2012	1	15	x
211	x					Firmware version (HMI)	R	char	40	20	ASCII	V2.02 13.08.2012	1	16	x
231	x					Firmware version (DR)	R	char	40	20	ASCII	V1.5.6	1	17	x
402	x	x				Remote mode	RW	uint(16)	2	1	Coils : Remote	0x0000 = off; 0xFF00 = on	2	1	x
405	x					DC input	RW	uint(16)	2	1	Coils : Input	0x0000 = off; 0xFF00 = on	2	4	x
407	x					Condition of DC input after power fail alarm	RW	uint(16)	2	1	Coils : Auto-On	0x0000 = off; 0xFF00 = auto-on	3	30	x
408	x		x			Condition of DC input after powering the device	RW	uint(16)	2	1	Reg : Power-On	0xFFFE = off; 0xFFFE = restore	2	6	x
409	x		x			Operation mode (UIP/UIR)	RW	uint(16)	2	1	Coils : Operation mode	0x0000 = UIP; 0xFF00 = UIR	2	7	x
410	x					Restart of the device (warm start)	W	uint(16)	2	1	Coils : Restart	0xFF00 = execute	2	8	x
411	x					Acknowledge alarms	W	uint(16)	2	1	Coils : Alarms	0xFF00 = acknowledge	2	9	x
416	x					Analog interface: Reference voltage (pin VREF)	RW	uint(16)	2	1	Coils : VREF	0x0000 = 10V; 0xFF00 = 5V	2	14	x
417	x					Analog interface: REM-SB level	RW	uint(16)	2	1	Coils : REM-SB Level	0x0000 = normal; 0xFF00 = inverted	2	16	x
418	x					Analog interface: REM-SB action	RW	uint(16)	2	1	Coils : REM-SB Action	0x0000 = DC; 0xFF00 = DC auto	2	37	x
422	x					Speed of internal voltage controller	RW	uint(16)	2	1	Coils : Controller speed	0x0000 = slow; 0xFF00 = fast	2	38	x
425	x					DC input after leaving remote	RW	uint(16)	2	1	Coils : Condition	0x0000 = off; 0xFF00 = unchanged	2	38	x
440	x		x			Analog interface: Pin 14 configuration	RW	uint(16)	2	1	Alarm selection 1	0x0000 = OVP (default); 0x0001 = OCP; 0x0002 = OPP; 0x0003 = OVP + OCP; 0x0004 = OVP + OPP; 0x0005 = OCP + OPP; 0x0006 = OVP + OCP + OPP;			
441	x			x		Analog interface: Pin 6 configuration	RW	uint(16)	2	1	Alarm selection 2	0x0000 = OT + PF (default); 0x0001 = OT; 0x0002 = PF;			
500	x	x				Set voltage value	RW	uint(16)	2	1	0x0000 - 0x00E5 (0 - 102%)	Voltage value (for translation see programming guide)	2	23	x
501	x		x			Set current value	RW	uint(16)	2	1	0x0000 - 0x00E5 (0 - 102%)	Current value (for translation see programming guide)	2	24	x
502	x					Set power value	RW	uint(16)	2	1	0x0000 - 0x00E5 (0 - 102%)	Power value (for translation see programming guide)	2	25	x
503	x		x			Set resistance value	RW	uint(16)	2	1	variable - 0xCCCC (x - 100%) Minimum value needs to be calculated, refer to programming guide	Resistance value (for translation see programming guide)	2	26	x
505	x					Device state	R	uint(32)	4	2	Bit 0-4: Control location	0x00 = free; 0x01 = local; 0x03 = USB; 0x04 = analog; 0x05 = Profibus; 0x06 = Ethernet; 0x08 = Master/Slave; 0x09 = RS232; 0x10 = CANopen; 0x12 = Modbus TCP IP; 0x13 = Profinet IP; 0x14 = Ethernet IP; 0x15 = Ethernet 2P; 0x16 = Modbus TCP 2P; 0x17 = Profinet 2P; 0x18 = GPIB; 0x19 = CAN; 0x1A = EtherCAT	2	27	x
						Bit 5 : -									
						Bit 6 : Master-slave type					0 = Slave; 1 = Master				
						Bit 7 : Input state					0 = off; 1 = on				
						Bit 8 : -									
						Bit 9-10: Regulation mode					00 = CV; 01 = CR; 10 = CC; 11 = CP				
						Bit 11 : Remote					0 = off; 1 = on				
						Bit 12 : -									
						Bit 13 : Function generator					0 = stopped; 1 = running				
						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 20 : OTpre					0 = none; 1 = active				
						Bit 21 : Power fail 1					0 = none; 1 = active				
						Bit 22 : Power fail 2					0 = none; 1 = active				
						Bit 23 : Power fail 3					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 29 : MSS					0 = OK; 1 = Master-slave in secure mode				
						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)	2	28	x
508	x					Actual current	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual current (for translation see programming guide)</			