

Module address		Read coils (0x01)	Read holding registers (0x03)	Write single coil (0x05)	Write multiple registers (0x06)	Description		Access	Bit type	Data length in bytes	Number of registers	Data	Example	Profibus slot / Profinet cabinet	etherCAT SDO/PDO?
0	x					Device class	R	uint16	2			58 = PSB 9000 Series	58	0	x
1	x					Device type	R	char	40	20	ASCII	PSB 9000-120	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	80	1	8	x
125	x					Nominal power	R	float	4	2	Floating point number IEEE754	8000	1	9	x
127	x					Max. internal resistance	R	float	4	2	Floating point number IEEE754	25	1	10	x
129	x					Min. internal resistance	R	float	4	2	Floating point number IEEE754	0.02	1	11	x
131	x					Article no.	R	char	40	20	ASCII	3000301	1	12	x
151	x					Serial no.	R	char	40	20	ASCII	123456789	1	13	x
171	x	x				User test	RW	char	40	20	ASCII		1	14	x
191	x					Firmware version (KE)	R	char	40	20	ASCII		1	15	x
211	x					Firmware version (HM)	R	char	40	20	ASCII		1	16	x
231	x					Firmware version (DR)	R	char	40	20	ASCII		1	17	x
402	x	x	x			Remote mode	RW	uint16	2	1	Coils - Remote	0x0000 = off; 0xFF00 = on	2	1	x
405	x	x	x			DC output/input	RW	uint16	2	1	Coils - Output	0x0000 = off; 0xFF00 = on	2	4	x
407	x	x	x			Condition of DC output/input after power fail alarm	RW	uint16	2	1	Coils - Auto-On	0x0000 = off; 0xFF00 = auto-on	3	30	x
408	x	x	x	x		Condition of DC output/input after powering the device	RW	uint16	2	1	Reg. - Power-On	0x0000 = off; 0xFFFE = restore	2	8	x
409	x	x	x			Operation mode (UPLUR)	RW	uint16	2	1	Coils - Operation mode	0x0000 = UPL; 0xFF00 = UR	2	7	x
410	x	x				Start of the device (warm start)	W	uint16	2	1	Coils - Restart	0xFF00 = execute	2	8	x
411	x	x				Acknowledge alarms	W	uint16	2	1	Coils - Alarms	0xFF00 = acknowledge	2	8	x
416	x	x	x			Analog interface: Reference voltage (pin VREF)	RW	uint16	2	1	Coils - VREF	0x0000 = 10V; 0xFF00 = 5V	2	14	x
417	x	x	x			Analog interface: REM-SB level	RW	uint16	2	1	Coils - REM-SB Level	0x0000 = normal; 0xFF00 = inverted	2	30	x
418	x	x				Analog interface: REM-SB action	W	uint16	2	1	Coils - REM-SB Action	0x0000 = DC off; 0xFF00 = DC auto	2	37	x
425	x	x	x			DC output/input after leaving remote	RW	uint16	2	1	Coils - Condition	0x0000 = off; 0xFF00 = unchanged	2	8	x
440	x	x	x			Analog interface: Pin 14 configuration	RW	uint16	2	1	Alarms 1	0x0000 = OVP (default); 0x0001 = OCP; 0x0002 = OPP; 0x0003 = OVP + OCP; 0x0004 = OVP + OPP; 0x0005 = OCP + OPP; 0x0006 = OVP + OCP + OPP; 0x0007 = OVP + OCP + OPP.	2	13	x
441	x	x	x			Analog interface: Pin 6 configuration	RW	uint16	2	1	Alarms 2	0x0000 = OT + PF (default); 0x0001 = OT; 0x0002 = PF; 0x0003 = OVP; 0x0004 = OVP + OCP; 0x0005 = OCP + OPP; 0x0006 = OVP + OCP + OPP.	2	13	x
442	x	x	x			Analog interface: Pin 15 configuration	RW	uint16	2	1	Status DC	0x0000 = CV; 0x0001 = DC output status	2	21	x
498	x	x	x			Sink mode: Set power value	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	Power value (for translation see programming guide)	2	21	x
499	x	x	x			Sink mode: Set current value	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	Current value (for translation see programming guide)	2	20	x
500	x	x	x			Set voltage: Set current value	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)	2	8	x
501	x	x	x			Source mode: Set current value	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	Current value (for translation see programming guide)	2	24	x
502	x	x	x			Source mode: Set power value	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	Power value (for translation see programming guide)	2	25	x
503	x	x	x			Source mode: Set resistance value	RW	uint16	2	1	variable..0xD0E5 (x - 102%)	Resistance value (for translation see programming guide)	2	26	x
504	x	x	x			Sink mode: Set resistance value	RW	uint16	2	1	variable..0xD0E5 (x - 102%)	Resistance value (for translation see programming guide)	2	22	x
505	x					Device state	R	uint32	4	2	Bit 0-4: Control location Bit 5: PSB/PSBE 9000 operation mode Bit 6: Master-slave type Bit 7: Output state Bit 8: Calibration is enabled Bit 9-10: Regulation mode Bit 12: PSB/PSBE 9000 operation mode Bit 13: Function generator Bit 14: External sense Bit 15: Alarm Bit 16: OKP Bit 17: OCP Bit 18: OPP Bit 19: OT Bit 21: Power fail 1 Bit 22: Power fail 2 Bit 23: Power fail 3 Bit 24: UVd Bit 25: OVD Bit 26: UCD Bit 27: OCD Bit 28: OPD Bit 29: MSP Bit 30: REM-SB	0x00 = free; 0x01 = local; 0x03 = USB; 0x04 = analog; 0x05 = Profibus; 0x06 = Ethernet; 0x07 = Master/Slave; 0x08 = RS232; 0x10 = CANopen; 0x12 = Modbus TCP; 1P; 0x13 = Profinet; 1P; 0x14 = Ethernet; 1P; 0x15 = Ethernet; 2P; 0x16 = Modbus TCP; 2P; 0x17 = Profinet; 2P; 0x18 = GFB; 0x19 = CAN; 0x1A = EtherCAT Bit 6: Master-slave type 0 = off; 1 = on Bit 7: Output state 0 = off; 1 = on Bit 8: Calibration is enabled 0 = off; 1 = on Bit 9-10: Regulation mode 00 = CV; 01 = CR; 10 = CC; 11 = CP Bit 12: PSB/PSBE 9000 operation mode 0 = stopped; 1 = sink Bit 13: Function generator 0 = stopped; 1 = running Bit 14: External sense 0 = off; 1 = on Bit 15: Alarm 0 = none; 1 = active Bit 16: OKP 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 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: MSP 0 = OK; 1 = Master-slave protection Bit 30: REM-SB 0 = DC enabled; 1 = REM-SB disables power output 0 = source mode; 1 = sink mode Actual voltage (for translation see programming guide) Actual current (for translation see programming guide) Actual power (for translation see programming guide)	2	27	x
507	x					Actual voltage	R	uint16	2	1	0x0000..0xFFFF (0 - 125%)	Actual voltage (for translation see programming guide)	2	28	x
508	x					Actual current	R	uint16	2	1	0x0000..0xFFFF (0 - 125%)	Actual current (for translation see programming guide)	2	29	x
509	x					Actual power	R	uint16	2	1	0x0000..0xFFFF (0 - 125%)	Actual power (for translation see programming guide)	2	30	x
520	x					Count of OT alarms since power up	R	uint16	2	1	0x0000..0xFFFF		3	20	x
521	x					Source mode: Count of OC alarms since power up	R	uint16	2	1	0x0000..0xFFFF		3	21	x
522	x					Source mode: Count of OP alarms since power up	R	uint16	2	1	0x0000..0xFFFF		3	22	x
523	x					Count of OT alarms since power up	R	uint16	2	1	0x0000..0xFFFF		3	23	x
524	x					Count of PF alarms since power up	R	uint16	2	1	0x0000..0xFFFF		3	24	x
525	x					Sink mode: Count of PF alarms since power up	R	uint16	2	1	0x0000..0xFFFF		3	25	x
526	x					Sink mode: Count of OP alarms since power up	R	uint16	2	1	0x0000..0xFFFF		3	26	x
550	x	x	x			Overvoltage protection threshold (OVP)	RW	uint16	2	1	0x0000..0xE147 (0 - 110%)	OVP threshold (for translation see programming guide)	3	0	x
551	x	x	x			Source mode: Overcurrent protection threshold (OCP)	RW	uint16	2	1	0x0000..0xE147 (0 - 110%)	OCP threshold (for translation see programming guide)	3	3	x
552	x	x	x			Source mode: Overpower protection threshold (OPP)	RW	uint16	2	1	0x0000..0xE147 (0 - 110%)	OPP threshold (for translation see programming guide)	3	8	x
559	x	x	x			Source mode: Undervoltage detection (UVd)	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	UVd threshold (for translation see programming guide)	3	9	x
560	x	x	x			Source mode: Adjustable UVd notification	RW	uint16	2	1	Adjustable UVd notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	10	x
561	x	x	x			Source mode: Overvoltage detection (OVD)	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	OVD threshold (for translation see programming guide)	3	11	x
562	x	x	x			Source mode: Adjustable OVD notification	RW	uint16	2	1	Adjustable OVD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	12	x
563	x	x	x			Source mode: Undercurrent detection (UCD)	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	UCD threshold (for translation see programming guide)	3	13	x
564	x	x	x			Source mode: Adjustable UCD notification	RW	uint16	2	1	Adjustable UCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	14	x
565	x	x	x			Source mode: Overcurrent detection (OCD)	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	OCD threshold (for translation see programming guide)	3	15	x
566	x	x	x			Source mode: Adjustable OCD notification	RW	uint16	2	1	Adjustable OCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	16	x
567	x	x	x			Source mode: Overpower detection (OPD)	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	OPD threshold (for translation see programming guide)	3	17	x
568	x	x	x			Source mode: Adjustable OPD notification	RW	uint16	2	1	Adjustable OPD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	18	x
569	x	x	x			Sink mode: Overcurrent protection threshold OCP	RW	uint16	2	1	0x0000..0xE147 (0 - 110%)	OCP threshold (for translation see programming guide)	3	4	x
570	x	x	x			Sink mode: Overpower protection threshold OPP	RW	uint16	2	1	0x0000..0xE147 (0 - 110%)	OPP threshold (for translation see programming guide)	3	7	x
571	x	x	x			Sink mode: Undercurrent detection OPD	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	OPD threshold (for translation see programming guide)	3	3	x
572	x	x	x			Sink mode: Adjustable UCD notification	RW	uint16	2	1	Adjustable UCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	32	x
573	x	x	x			Sink mode: Overcurrent detection OCD	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	OCD threshold (for translation see programming guide)	3	33	x
574	x	x	x			Sink mode: Adjustable OCD notification	RW	uint16	2	1	Adjustable OCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	34	x
575	x	x	x			Sink mode: Adjustable OVD notification	RW	uint16	2	1	Adjustable OVD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	35	x
576	x	x	x			Sink mode: Adjustable OPD notification	RW	uint16	2	1	Adjustable OPD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	36	x
650	x	x	x			Master-slave: Link mode on MS bus	RW	uint16	2	1	Coils - Mode	0x0000 = Slave; 0xFF00 = Master	4	0	x
653	x	x	x			Master-slave: Enable MS	RW	uint16	2	1	Coils - MS on/off	0x0000 = off; 0xFF00 = on	4	1	x
654	x	x	x			Master-slave: MS status	R	uint16	2	1	Coils - MS status	0 = stopped; 1 = running	4	2	x
655	x	x	x			Master-slave: Condition	R	uint16	2	1	Reg - MS status	0x0000 = not initialised; 0x0001 = init running; 0x0003 = set defaults; 0x0004 = setup interface; 0x0005 = assignment; 0xFFFC = disrupted; 0xFFFF = different models detected; init not OK; 0xFFFE = error; 0xFFFF = init OK	4	9	x
656	x					Master-slave: Total voltage in V	R	float	4	2	Floating point number IEEE754	500	4	6	x
658	x					Master-slave: Total current in A	R	float	4	2	Floating point number IEEE754	100	4	7	x
660	x					Master-slave: Total power in W	R	float	4	2	Floating point number IEEE754	350	4	8	x
662	x					Master-slave: Number of initialised slaves	R	uint16	2	1		1..15	4	9	x
850	x	x	x			Function generator: Arbitrary: Start/stop	RW	uint16	2	1	Coils - Start/Stop	0x0000 = Stop; 0xFF00 = Start	5	0	x
851	x	x	x			Function generator: Arbitrary: Select U	RW	uint16	2	1	Coils - U	0x0000 = not assigned; 0xFF00 = Assign function to voltage	5	1	x
852	x	x	x			Function generator: Arbitrary: Select I	RW	uint16	2	1	Coils - I	0x0000 = not assigned; 0xFF00 = Assign function to current	5	2	x
859	x	x	x			Function generator: Arbitrary: Start sequence	RW	uint16	2	1	0x0001..0x0063		5	9	x
860	x	x	x			Function generator: Arbitrary: End sequence	RW	uint16	2	1	0x0001..0x0063		5	10	x
861	x	x	x			Function generator: Arbitrary: Sequence cycles	RW	uint16	2	1	0x0000..0x00E7	0x0000 = infinite	5	11	x
900	x	x	x			Function generator: Arbitrary: Setup for sequence 1	RW	float	32	16	Bytes 0-3: UsetI(AC) in V Bytes 4-7: UsetI(AC) in V Bytes 8-11: IsI(I/T) in Hz Bytes 12-15: IsI(I/T) in Hz Bytes 16-19: Angle in degrees Bytes 20-23: UsetI(OC) in V Bytes 24-27: UsetI(OC) in V Bytes 28-31: Sequence time in µs	Floating point number in IEEE754 format, see device manual for value ranges. chapter about function generator Integer in IEEE754 format: 0..10000 Hz Integer in IEEE754 format: 0..10000 Hz Integer in IEEE754 format: 0..360° Floating point number in IEEE754 format, see device manual for value ranges. chapter about function generator Floating point number in IEEE754 format: 100 µs..36.000.000.000 µs	6	0	x
2408	x	x	x			Function generator: Arbitrary: Setup for sequence 99	RW	float	32	16	Bytes 0-3: UsetI(AC) in V Bytes 4-7: UsetI(AC) in V Bytes 8-11: IsI(I/T) in Hz Bytes 12-15: IsI(I/T) in Hz Bytes 16-19: Angle in degrees Bytes 20-23: UsetI(OC) in V Bytes 24-27: UsetI(OC) in V Bytes 28-31: Sequence time in µs	Floating point number in IEEE754 format, see device manual for value ranges. chapter about function generator Integer in IEEE754 format: 0..10000 Hz Integer in IEEE754 format: 0..10000 Hz Integer in IEEE754 format: 0..360° Floating point number in IEEE754 format, see device manual for value ranges. chapter about function generator Floating point number in IEEE754 format: 100 µs..36.000.000.000 µs	6	98	x
9000	x	x	x			Upper limit of voltage set value (U-max)	RW	uint16	2	1	0x0000..0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)	2	31	x
9001	x	x	x			Lower limit of voltage set value (U-min)	RW	uint16	2	1	0x0000..0xD0E5 (0 -				