

Read Only Registers (Input Registers)					
Address	Term	Parameter	Remark	Type	High Order/Low Order
1	Run Status	4	0 = Idle 1 = Running outwards 2 = Running inwards 3 = Waiting for time = "Next Time To Run" 4 = Initializing outwards 5 = Initializing inwards	U8	
2	Actual Position	8	Resolution in 1/10mm relative to Offset	S16	
3	Distance From Target	14	Resolution in 1/10mm	S16	
4	Status Register 1	51	See definition of bits below Bit 0 : EOS switch, Inwards (Switch activated => 1) Bit 1 : EOS switch, Outwards (Switch activated => 1) Bit 2 : Hall A Signal Bit 3 : Hall B Signal Bit 4 : Ready (True when actuator is ready to run) Bit 5 : FET Temperature Valid Bit 6 : Actual Current Valid Bit 7 : Current Time Valid Bit 8 : Reserved Bit 9 : LOCAL Connected (True when in service mode) Bit 10 : Position valid Bit 11->15 : Reserved	U16	
5	Reason for Last Stop	50	0 = Target position reached 1 = Current cut-off out 2 = Current cut-off in 3 = Stop command received 4 = Undervoltage detected on V_IN 5 = Overvoltage detected on V_IN 6 = FET Temperature exceeded 7 = Actuator Internal Temperature exceeded 8 = Hall error 9 = Power Switch error 10 = H-bridge error 11 = High side voltage error 12 = Not configured/initialized 13 = Endstop reached	U8	
6	Actual V_IN	23	Average mV value, updated every 100ms	U16	
7	Actual Current	28	Average mA value, updated every 100ms	U16	
8	Actuator Internal Temperature	33	Pseudo ambient temperature [°C]	S16	
9	FET Temperature	35	FET temperature [°C] If set value is out of range, actuator will deny to run	S16	
10	Offset	9	Number of pulses relative to EOS switch inwards. Can only be set via the BusLink service tool	U16	
11	Max Stroke Length	11	Resolution in 1/10mm relative to Offset. Used to limit stroke length (i.e. Stroke length shorter than physical maximum). Can only be set via the BusLink service tool	U16	
12	EOS Out Position	10	Pulses relative to EOS In. Set during production.	U16	
13	Actual Position (Pulses)	7	Pulses relative to EOS In switch	S16	
14	Actual V_SW	24	For development/production purposes. Not relevant for end-user.	U16	
15	Actual V_PUP	25	For development/production purposes. Not relevant for end-user.	U16	
16	Status Register 2	52	For development/production purposes. Not relevant for end-user.	U16	
17	Pulses pr. 1000mm	45	For development/production purposes. Not relevant for end-user.	U16	
18	Actuator Internal Temperature Limit	34	For development/production purposes. Not relevant for end-user.	S16	
19	FET Temperature Stop Limit	36	For development/production purposes. Not relevant for end-user.	S16	
20	FET Temperature Start Limit	37	For development/production purposes. Not relevant for end-user.	S16	
21	FET Temperature Calibration Factor	38	For development/production purposes. Not relevant for end-user.	S16	
22	V_IN Maximum Limit (1s)	19	For development/production purposes. Not relevant for end-user.	U16	
23	V_IN Minimum Limit (1s)	20	For development/production purposes. Not relevant for end-user.	U16	
24	V_IN Maximum Limit (3ms)	21	For development/production purposes. Not relevant for end-user.	U16	
25	V_IN Minimum Limit (3ms)	22	For development/production purposes. Not relevant for end-user.	U16	
26	Number of Power Fails	63	Service counter. Also available via the BusLink service tool	U32	(31:16)
27	Number of Power Fails	63	Service counter. Also available via the BusLink service tool	U32	(15:0)
28	Total Number of Starts Inwards	54	Service counter. Also available via the BusLink service tool	U32	(31:16)
29	Total Number of Starts Inwards	54	Service counter. Also available via the BusLink service tool	U32	(15:0)
30	Total Number of Starts Outwards	55	Service counter. Also available via the BusLink service tool	U32	(31:16)
31	Total Number of Starts Outwards	55	Service counter. Also available via the BusLink service tool	U32	(15:0)
32	Total Running Time	56	Service counter (value in seconds). Also available via the BusLink service tool	U32	(31:16)
33	Total Running Time	56	Service counter (value in seconds). Also available via the BusLink service tool	U32	(15:0)
34	Maximum Current Measured	57	Also available via the BusLink service tool (value in mA)	U16	
35	Maximum FET Temperature Measured	58	Also available via the BusLink service tool (value in °C)	U16	
36	Minimum Actuator Temperature Measured	59	Also available via the BusLink service tool (value in °C)	U16	
37	Performed Work	60	Also available via the BusLink service tool (value is current multiplied by time [A*s])	U32	(31:16)
38	Performed Work	60	Also available via the BusLink service tool (value is current multiplied by time [A*s])	U32	(15:0)
39	Number of Telegrams With Invalid Content	61	Service counter (invalid function code, invalid data etc.) used for debugging on system level. Also available via the BusLink service tool	U32	(31:16)
40	Number of Telegrams With Invalid Content	61	Service counter (invalid function code, invalid data etc.) used for debugging on system level. Also available via the BusLink service tool	U32	(15:0)

41	Number of Telegrams With CRC Error	62	Service counter (total of corrupted telegrams) used for debugging on system level. Also available via the BusLink service tool.	U32	(31:16)
42	Number of Telegrams With CRC Error	62	Service counter (total of corrupted telegrams) used for debugging on system level. Also available via the BusLink service tool.	U32	(15:0)
43	Total Number of Current Cutt-Offs out	78	Service counter. Also available via the BusLink service tool	U32	(31:16)
44	Total Number of Current Cutt-Offs out	78	Service counter. Also available via the BusLink service tool	U32	(15:0)
45	Total Number of Current Cutt-Offs in	79	Service counter. Also available via the BusLink service tool	U32	(31:16)
46	Total Number of Current Cutt-Offs in	79	Service counter. Also available via the BusLink service tool	U32	(15:0)
47	Number of Times Running With Actuator Temperature Exceeded	80	Service counter. Also available via the BusLink service tool	U16	
48	Motor Voltage Before Stop	94	For development/production purposes. Not relevant for end-user.	U8	
49	Maximum Allowed Current	95	For development/production purposes. Not relevant for end-user.	U16	
50	Framework Version	74	For development/production purposes. Not relevant for end-user.	U16	
51	SW Version	75	For development/production purposes. Not relevant for end-user.	U16	
52	Parameter List Version	1	For development/production purposes. Not relevant for end-user.	U16	
53	Remote Data Bus Baud Rate	6	Baud rate in 100's (e.g. 1152 => 115200bps) Can only be set via the BusLink service tool	U16	
54	Parity	81	Parity setting for Remote interface: 0 = No parity 1 = Even parity 2 = Odd parity Can only be set via the BusLink service tool	U8	
55	Number of Stop Bits	82	Stop bit setting for Remote interface: 1 = 1 stop bit 2 = 2 stop bits Can only be set via the BusLink service tool	U8	
56	Current Cut-Off Suppress	98	For development/production purposes. Not relevant for end-user.	U8	
57	Ramp Up Slope	47	For development/production purposes. Not relevant for end-user.	U8	
58	Ramp Down Slope	48	For development/production purposes. Not relevant for end-user.	U8	
59	Modbus Response Delay	99	Delay in ms from reception of last character in request frame before response is sent Default: 19200-1*11bit*3,5char = 2,005ms => 3ms Can only be set via the BusLink service tool	U8	
60	Command, Local	3	Can only be set via the BusLink service tool	U8	
61	PO Number	64	For development/production purposes. Not relevant for end-user.	U32	(31:16)
62	PO Number	64	For development/production purposes. Not relevant for end-user.	U32	(15:0)
63	Serial Number	65	For development/production purposes. Not relevant for end-user.	U16	
64	STM32 Device ID, U_ID(15:0)	66	For development/production purposes. Not relevant for end-user.	U16	
65	STM32 Device ID, U_ID(31:16)	67	For development/production purposes. Not relevant for end-user.	U16	
66	STM32 Device ID, U_ID(47:32)	68	For development/production purposes. Not relevant for end-user.	U16	
67	STM32 Device ID, U_ID(63:48)	69	For development/production purposes. Not relevant for end-user.	U16	
68	STM32 Device ID, U_ID(79:64)	70	For development/production purposes. Not relevant for end-user.	U16	
69	STM32 Device ID, U_ID(95:80)	71	For development/production purposes. Not relevant for end-user.	U16	
70	FET Temperature, A/D	72	For development/production purposes. Not relevant for end-user.	U16	
71	Time out, Failed to Run	73	For development/production purposes. Not relevant for end-user.	U8	
72	SW Number	96	For development/production purposes. Not relevant for end-user.	U16	
73	Initialization Status	97	For development/production purposes. Not relevant for end-user.	U8	
74	A/D Value at Low Calibration Current	29	For development/production purposes. Not relevant for end-user.	U16	
75	A/D Value at High Calibration Current	30	For development/production purposes. Not relevant for end-user.	U16	
76	Low Calibration Current	31	For development/production purposes. Not relevant for end-user.	U16	
77	High Calibration Current	32	For development/production purposes. Not relevant for end-user.	U16	
78	Stroke Length Correction Factor	12	For development/production purposes. Not relevant for end-user.	U8	
79	Last Hall Signal	53	For development/production purposes. Not relevant for end-user.	U8	
80	STM32 Temperature AD Calibration	83	For development/production purposes. Not relevant for end-user.	U16	
81	STM32 Calibration Temperature	84	For development/production purposes. Not relevant for end-user.	S8	
82	Spare 1	89	For development/production purposes. Not relevant for end-user.	U8	
83	Spare 2	90	For development/production purposes. Not relevant for end-user.	U8	
84	Spare 3	91	For development/production purposes. Not relevant for end-user.	U8	
85	Modbus User Map Command	100	Hardcoded to Modbus Holding register 1005 0 = No command 1 = Save Modbus User Map 2 = Set Modbus User Map to Default	U8	
86	Parameter Database Counter	101	For development/production purposes. Not relevant for end-user.	U32	(31:16)
87	Parameter Database Counter	101	For development/production purposes. Not relevant for end-user.	U32	(15:0)
88	Debug Status Register	102	For development/production purposes. Not relevant for end-user.	U32	(31:16)
89	Debug Status Register	102	For development/production purposes. Not relevant for end-user.	U32	(15:0)
90	Number Of Flash Writes	103	For development/production purposes. Not relevant for end-user.	U32	(31:16)
91	Number Of Flash Writes	103	For development/production purposes. Not relevant for end-user.	U32	(15:0)
92	Number Of Eeprom Writes	104	For development/production purposes. Not relevant for end-user.	U32	(31:16)
93	Number Of Eeprom Writes	104	For development/production purposes. Not relevant for end-user.	U32	(15:0)
94	Number Of Power Ups	105	For development/production purposes. Not relevant for end-user.	U32	(31:16)
95	Number Of Power Ups	105	For development/production purposes. Not relevant for end-user.	U32	(15:0)