



Modbus configuration for Connect Pro 400V

KESSEL ModBus RTU Protocol

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1

Description Modbus

The Modbus in the Connect Pro 400V control unit is based on the Modbus RTU standard.

2

Register

2.1

COIL register

Description

The COIL registers are 'read and write' registers. In other words, values can be read and written. As things stand, the registers are used only for read operations. Please refrain from using write commands. This is intended for future expansion.

Functions

The function code to read the COIL register is 0x01.

A COIL register is one bit wide.

Register addresses

The COIL registers are located in the address range from 0_H to 270E_H (00001 to 09999).

The following registers are currently used for the KESSEL control units:

- 1–500 (or: 00001–00500) Digital outputs

2.1.1

COIL 0_H-9_H (00001-00010) | Digital outputs

ModBus settings

Function code: **01_H**

Description

Register	Size	Designation	Short name	Values		Description
00001	1	Relay 1	RS 1	0:	Relay deactivated	Shows the status of the relay for the 1st main consumer
				1:	Relay activated	
00002	1	Relay 2	RS 2	0:	Relay deactivated	Shows the status of the relay for the 2nd main consumer
				1:	Relay activated	
00003	1	Fault relay	RSt	0:	Relay deactivated	Shows the status of the relay for the fault signal
				1:	Relay activated	
00004	1	Warning relay	RWa	0:	Relay deactivated	Shows the status of the relay for the warning signal
				1:	Relay activated	
00005	1	Ext. audible alarm	EXT	0:	Relay deactivated	Shows the status of the external signal transmitter
				1:	Relay activated	
00006	1	Output 1	RA1	0:	Relay deactivated	Displays the status of output 1
				1:	Relay activated	
00007	1	Output 2	RA2	0:	Relay deactivated	Shows the status of output 2
				1:	Relay activated	
00008	1	Output 3	RA3	0:	Relay deactivated	Shows the status of output 3
				1:	Relay activated	
00009	1	Output 4	RA4	0:	Relay deactivated	Shows the status of output 4
				1:	Relay activated	
00010		Output 5	RA5	0:	Relay deactivated	Shows the status of output 5
				1:	Relay activated	

2.2

Discrete input

Description

The DISCRETE registers are read-only registers. In other words, values can be read out.

The values of the control unit's digital inputs are compiled in the Modbus function group.

Functions

The function code to read the COIL register is 0x02.

A DISCRETE register is one bit in size.

Register addresses

The DISCRETE registers are located in the address range from 0_H to 270E_H (10001 to 19999).

The following registers are currently used for the KESSEL control units:

- 1 to 4 (or: 10001 to 10004) digital inputs
- 100 to 115 (or: 10100 to 10115) General status and errors
- 200 to 222 (or: 10200 to 10222) General status and error codes
- 300 to 314 (or: 10300 to 10314) General status and errors
- 5100 to 5103 (or: 15100 to 15103) Status and fault signals for switchgear communication
- 5500 to 5523 (or: 15500 to 15523) Status and fault signals for motors and pumps
- 5600 to 5615 (or: 15600 to 15615) Status and fault signals for motors and pumps
- 5700 to 5702 (or: 15700 to 15702) Status and fault signals for motors and pumps
- 6100 to 6106 (or: 16100 to 16106) Status and fault signals for sensors and inputs
- 6500 to 6512 (or: 16500 to 16512) Status and fault signals for dampers and backflow
- 7500 to 7512 (or: 17500 to 17512) Status and fault signals for the SonicControl sensor and grease separator

2.2.1

DISCRETE Input 0_H-3_H (10001-10004) | Digital inputs

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
10001	1	Entrance 1	I1	0: normally open 1: normally closed	Displays the logic state of input 1
10002	1	Entrance 2	I2	0: normally open 1: normally closed	Displays the logic state of input 1
10003	1	Entrance 3	I3	0: normally open 1: normally closed	Displays the logic state of input 3
10004	1	Entrance 4	I4	0: normally open 1: normally closed	Displays the logic state of input 4

2.2.2

DISCRETE Input 63_H–72_H (10100–10115) | General status and errors

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
10100	1	First initialisation	El	0: not done 1: done	Indicates whether the initialisation has been carried out
10101	1	Device initialised	GI	0: no event 1: event has taken place	Device status: initialised
10102	1	Factory settings	Work	0: no event 1: event has taken place	Factory settings
10103	1	Acoustic alarm acknowledged	AlQuit	0: no event 1: event has taken place	Acoustic alarm acknowledged
10104	1	Failure confirmed	Quit	0: no event 1: event has taken place	Failure confirmed status
10105	1	Maintenance done	WarD	0: not done 1: done	Indicates whether maintenance has been carried out
10106	1	Parameter changed	ParW	0: no event 1: event has taken place	Parameter changed status
10107	1	Expert parameter changed	ExpW	0: no event 1: event has taken place	Expert parameter changed status
10108	1	Log book read	LogR	0: no event 1: event has taken place	Log book read status
10109	1	Sensor configuration changed	SenKonW	0: no event 1: event has taken place	Sensor configuration status changed
10110	1	Control unit shut down	SchGH	0: not done 1: done	Indicates whether the control unit has been shut down
10111	1	Battery monitoring activated	BatÜA	0: no event 1: event has taken place	Battery monitoring enabled
10112	1	Battery monitoring deactivated	BatÜD	0: no event 1: event has taken place	Battery monitoring status disabled
10113	1	Software update successful	SUE	0: no event 1: event has taken place	Status: Software update successful
10114	1	Parameter read in	ParR	0: no event 1: event has taken place	Parameter read in status
10115	1	Maintenance due	WarF	0: no event 1: event has taken place	Status: Maintenance due

2.2.3

DISCRETE Input C7_H-DD_H (10200-10222) | General status and errors

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
10200	1	Power outage	PO	0: no error 1: error	Status: Power failure
10201	1	Battery error	BatF	0: no error 1: error	Battery error status
10202	1	Alarm temperature exceeded	AlTempÜ	0: no error 1: error	Condition: Alarm temperature exceeded
10203	1	Watchdog was active	WdA	0: no event 1: event has taken place	The watchdog was active
10204	1	Sleep mode	SIM	0: no event 1: event has taken place	Sleep mode
10205	1	SDS successful	SDSE	0: no event 1: event has taken place	SDS status: successful
10206	1	SDS not successful	SDSNE	0: no error 1: error	SDS status: unsuccessful
10207	1	SDS interrupted	SDSAb	0: no event 1: event has taken place	SDS status: cancelled
10208	1	Rotary field error	DfF	0: no error 1: error	Rotary field error status
10209	1	Phase error L1	PhFL1	0: no error 1: error	Status: Phase error L1
10210	1	Phase error L2	PhFL2	0: no error 1: error	Status: Phase error L2
10211	1	Phase error L3	PhFL3	0: no error 1: error	Status: Phase error L3
10212	1	Program read in	PR	0: no event 1: event has taken place	Programme status read
10213	1	Legionella flushing active	LsA	0: no event 1: event has taken place	Legionella flushing status: active
10214	1	Alarm level exceeded – level probe	AnÜPs	0: no error 1: error	Status: Alarm level exceeded – level probe
10215	1	Alarm level exceeded – optical probe	AnÜoS	0: no error 1: error	Condition: Alarm level exceeded – optical probe
10216	1	Alarm level exceeded – pressure sensor	Trans.	0: no error 1: error	Condition: Pressure sensor alarm level exceeded

Register	Size	Designation	Short name	Values	Description
10217	1	Alarm level exceeded (float)	Translation	0: no error 1: error	Status: Alarm level exceeded (float)
10218	1	Configuration changed	KonfW	0: no event 1: event has taken place	Status: Configuration changed
10219	1	Expert parameters read in	ExpR	0: no event 1: event has taken place	Expert parameters loaded
10220	1	Undervoltage L1	USpL1	0: no error 1: error	L1 undervoltage condition
10221	1	Undervoltage L2	USpL2	0: no error 1: error	L2 undervoltage condition
10222	1	Undervoltage L3	USpL3	0: no error 1: error	L3 undervoltage condition

2.2.4

DISCRETE Input 12B_H-139_H (10300-10314) | General status and errors

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
10300	1	Overvoltage L1	ÜSpL1	0: no error 1: error	L1 overvoltage condition
10301	1	Overvoltage L2	ÜSpL2	0: no error 1: error	L2 overvoltage condition
10302	1	Overvoltage L3	ÜSpL3	0: no error 1: error	L3 overvoltage condition
10303	1	Warning temperature exceeded	WaTempÜ	0: no event 1: event has taken place	Condition: Warning temperature exceeded
10304	1	Mains voltage on	NSpE	0: no event 1: event has taken place	Mains voltage on
10305	1	Control unit temperature exceeded	SchGTempÜ	0: no error 1: error	Switchgear temperature limit exceeded
10306	1	Software update start	SUSt	0: no event 1: event has taken place	Status: Software update started
10307	1	Software update unsuccessful	SUNE	0: no event 1: event has taken place	Status: Software update failed
10308	1	Potential-free contact: Warning – Manual operation	PotKWHand	0: no event 1: event has taken place	Status: Potential-free contact, Warning, Manual mode
10309	1	Potential-free contact: Fault – Manual mode	PotKStHand	0: no event 1: event has taken place	Status: Potential-free contact, Fault, Manual mode
10310	1	External audible alarm, manual operation	ExtSgHand	0: no event 1: event has taken place	Status of external signal transmitter: Manual mode

Register	Size	Designation	Short name	Values	Description
10311	1	NVS memory	SpNVS	0: no event 1: event has taken place	NVS memory status
10312	1	Logbook validation failed	LogValF	0: no event 1: event has taken place	Status: Logbook validation failed
10313	1	Measurement data storage validation failed	MessValF	0: no event 1: event has taken place	Status of measurement data storage: Validation failed
10314	1	Missing NFC record	FNFC	0: no event 1: event has taken place	Condition: missing NFC record

2.2.5 DISCRETE Input 0A28_H-0A29_H (12601-12602) | RemoteControl status and errors

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
12601	1	RemoteControl activation	FRC	0: not activated 1: unlocked	RemoteControl activation status
12602	1	RemoteControl communication error	KfRC	0: no error 1: error	Communication status between the main switchgear and the RemoteControl

2.2.6 DISCRETE Input 13EB_H-13EE_H (15100-15103) | Status and error signals for the control unit communication

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
15100	1	LIN error (SonicControl)	LIN	0: no error 1: error	LIN error status
15101	1	RS485 error	RS485	0: no error 1: error	RS485 error status
15102	1	Modem error	Modem	0: no error 1: error	Modem error status
15103	1	Communication error	KomF	0: no error 1: error	Status: Communication error

2.2.7 DISCRETE Input 157B_H-1593_H (15500-15524) | Status and error signals for motors and pumps

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
15500	1	Motor protection 1 triggered	MS1	0: no error 1: error	Engine protection 1 triggered
15501	1	Relay error pump 1	RFP1	0: no error 1: error	Status: Pump 1 relay fault
15502	1	Thermal protection 1A	Th1A	0: no error 1: error	Condition: Thermal protection 1A
15503	1	Thermal protection 1B	Th1B	0: no error 1: error	Thermal protection 1B status
15504	1	Upstream pump 1 L1	ÜP1L1	0: no error 1: error	Pump 1 L1 overcurrent condition
15505	1	Upstream pump 1 L2	ÜP1L2	0: no error 1: error	Overcurrent condition, Pump 1 L2
15506	1	Upstream pump 1 L3	ÜP1L3	0: no error 1: error	Overcurrent condition, Pump 1 L3
15507	1	Downstream pump 1 L1	UP1L1	0: no error 1: error	Status: Undervoltage, Pump 1 L1
15508	1	Downstream pump 1 L2	UP1L2	0: no error 1: error	Status: Undervoltage, Pump 1 L2
15509	1	Downstream pump 1 L3	UP1L3	0: no error 1: error	Status: Undercurrent, Pump 1 L3
15510	1	Maximum operating cycles for pump 1 exceeded	MSP1	0: Max. number not reached 1: Max. number reached	Maximum operating cycles for pump 1 exceeded status
15511	1	Upstream pump 2 L1	ÜP2L1	0: no error 1: error	Overcurrent condition, Pump 2 L1
15512	1	Upstream pump 2 L2	ÜP2L2	0: no error 1: error	Overcurrent condition, Pump 2 L2
15513	1	Upstream pump 2 L3	ÜP2L3	0: no error 1: error	Overcurrent condition, Pump 2 L3
15514	1	Downstream pump 2 L1	UP2L1	0: no error 1: error	Status: Undervoltage, Pump 2 L1
15515	1	Downstream pump 2 L2	UP2L2	0: no error 1: error	Status: Undervoltage, Pump 2 L2
15516	1	Downstream pump 2 L3	UP2L3	0: no error 1: error	Status: Undervoltage, Pump 2 L3
15517	1	Maximum operating cycles for pump 2 exceeded	MSP2	0: Max. number not reached 1: Max. number reached	Maximum operating cycles for pump 2 exceeded status
15518	1	Thermal protection 2A	Th2A	0: no error 1: error	Thermal protection 2A status

Register	Size	Designation	Short name	Values	Description
15519	1	Thermal protection 2B	Th2B	0: no error 1: error	Thermal protection 2B status
15520	1	Max run time 1	GzP1	0: Max. number not reached 1: Max. number reached	Condition: Boundary runtime 1
15521	1	Max run time 2	GzP2	0: Max. number not reached 1: Max. number reached	Status: Boundary runtime 2
15522	1	Max. number of runs 1	GP1	0: Max. number not reached 1: Max. number reached	Condition: Limit cycle count 1
15523	1	Max. number of runs 2	GP2	0: Max. number not reached 1: Max. number reached	Condition: Limit cycle 2
15524	1	Relay error pump 2	RFP2	0: no error 1: error	Status: Pump 2 relay fault

2.2.8

DISCRETE Input 15E0_H-15EE_H (15601-15615) | Status and error signals for motors and pumps

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
15601	1	Motor protection 2 triggered	MS2	0: no error 1: error	Engine protection 2 triggered
15602	1	Pump 1 automatic operation deactivated	AutoP1Dak	0: no event 1: event has taken place	Status: Automatic mode for Pump 1 disabled
15603	1	Pump 1 automatic operation activated	AutoP1Ak	0: no event 1: event has taken place	Status: Automatic mode for Pump 1 activated
15604	1	Restart 1	Wa1	0: no event 1: event has taken place	Status: Restart 1
15605	1	Restart 2	Wa2	0: no event 1: event has taken place	Status: Restart 2
15606	1	Pump 2 automatic operation deactivated	AutoP2Dak	0: no event 1: event has taken place	Status: Automatic mode for Pump 2 disabled
15607	1	Pump 2 automatic operation activated	AutoP2Ak	0: no event 1: event has taken place	Status: Automatic mode for Pump 2 enabled
15608	1	Pump 1 manual operation	P1Hand	0: no event 1: event has taken place	Pump 1 status: Manual operation
15609	1	Pump 2 manual operation	P2Hand	0: no event 1: event has taken place	Pump 2 status: Manual operation
15610	1	Counterclockwise rotation, Pump 1 manual operation	LP1Hand	0: no event 1: event has taken place	Status: Pump 1 running anti-clockwise in manual mode

Register	Size	Designation	Short name	Values	Description
15611	1	Counterclockwise rotation, Pump 2 manual operation	LP2Hand	0: no event 1: event has taken place	Status: Pump 2 running anti-clockwise (manual operation)
15612	1	AC output 1, manual operation	ACOut1Hand	0: no event 1: event has taken place	Status of AC output 1: Manual mode
15613	1	AC output 2, manual operation	ACOut2Hand	0: no event 1: event has taken place	Status: AC output 2, manual mode
15614	1	AC output 3, manual operation	ACOut3Hand	0: no event 1: event has taken place	Status of AC output 3: Manual mode
15615	1	AC output 4, manual operation	ACOut4Hand	0: no event 1: event has taken place	Status of AC output 4: Manual mode

2.2.9

DISCRETE Input 1643_H-1645_H (15700-15702) | Status and error signals for motors and pumps

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
15700	1	AC output 5, manual operation	ACOut5Hand	0: no event 1: event has taken place	Status: AC output 5, manual mode
15701	1	Fault on actuator 1	Stm1F	0: no event 1: event has taken place	Status: Actuator 1 fault
15702	1	Maximum operating cycles for actuator 1 exceeded	MSPStm1	0: Max. number not reached 1: Max. number reached	Condition: maximum number of switching cycles for actuator 1 exceeded

2.2.10

DISCRETE Input 17D3_H-17D9_H (16100-16106) | Status and error signals for sensors and inputs

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
16100	1	Pressure error	DF	0: no error 1: error	Pressure error status
16101	1	Pressure loss	Da	0: no error 1: error	Pressure loss status
16102	1	Probe error, optical probe 1	SFOS1	0: no error 1: error	Status: Optical probe error
16103	1	Sensor error: flap (Optical probe 2)	SFKI	0: no error 1: error	Probe error flap status
16104	1	Level error	NF	0: no error 1: error	Level error status

Register	Size	Designation	Short name	Values	Description
16105	1	Illogical level input	NE	0: correct level input 1: illogical level input	Illogical level input status
16106	1	Level sensor probe error	SFPs	0: no error 1: error	Status: Level probe error

2.2.11

DISCRETE Input 1963_H–196F_H (16500–16512) | Status and error signals for flaps and backwater

ModBus settings

Function code: 02_H

Description

Register	Size	Designation	Short name	Values	Description
16500	1	Flap error	KIF	0: no error 1: error	Flap error status
16501	1	Flap motor error	MFKI	0: no error 1: error	Flap motor error status
16502	1	Flap closed	KIC	0: no event 1: event has taken place	Flap closed
16503	1	Backwater start	Restart	0: no event 1: event has taken place	Status: Backlog Start
16504	1	Maximum operating cycles for flap exceeded	MSKI	0: Max. number not reached 1: Max. number reached	Maximum operating cycles for flap exceeded status
16505	1	SDS flap successful	SDSKIE	0: no event 1: event has taken place	SDS flap status: successful
16506	1	SDS flap not successful	SDSKINE	0: no error 1: error	SDS flap status unsuccessful
16507	1	SDS flap interrupted	SDSKIAb	0: no error 1: error	Condition: SDS flap broken off
16508	1	Flap open	Toilet	0: no event 1: event has taken place	Flap open
16509	1	Flap manual operation	KIHand	0: no event 1: event has taken place	Flap status: Manual operation
16510	1	Automatic operation of flap activated	AutoKIAk	0: no event 1: event has taken place	Status: Automatic flap mode activated
16511	1	Automatic operation of flap deactivated	AutoKIDeak	0: no event 1: event has taken place	Status: Automatic flap operation disabled
16512	1	Backwater end	Back	0: no event 1: event has taken place	Status: Backlog cleared

2.2.12

DISCRETE Input 1D4B_H-1D57_H (17500-17512) | Status and error signals for SonicControl sensor and grease separator

ModBus settings

Function code: **02_H**

Description

Register	Size	Designation	Short name	Values	Description
17500	1	Disposal	End	0: not done 1: done	Disposal status
17501	1	Calibration successful	KalErf	0: no event 1: event has taken place	Calibration successful
17502	1	Pre-alarm layer thickness F	FVA	0: no event 1: event has taken place	Condition: Pre-alarm; Coating thickness: F
17503	1	Sensor dry	STr	0: not dry 1: dry	Sensor dry status
17504	1	No rest phase detected	SRph	0: Rest phase 1: No rest phase	Status: no rest phase detected
17505	1	Alarm layer thickness F	FA	0: no error 1: error	Condition: Alarm – Coating thickness F
17506	1	Separator temperature exceeded	ATempÜ	0: no error 1: error	Condition: Separator temperature exceeded
17507	1	SonicControl manual measurement	SCHand	0: no event 1: event has taken place	Status: SonicControl manual measurement
17508	1	Top-up enabled with PIN	BefEn	0: no event 1: event has taken place	Status: Unlocked for top-up with PIN
17509	1	Filling started	BefSt	0: no event 1: event has taken place	Filling process started
17510	1	Filling paused	BefP	0: no event 1: event has taken place	Filling paused
17511	1	Filling complete	BefAb	0: no event 1: event has taken place	Status: Filling complete
17512	1	Filling interrupted	BefAbg	0: no event 1: event has taken place	Filling interrupted

2.3

Input register

Description

The INPUT registers are purely 'read-only' registers. In other words, values can be read out.

The error and status information for various control unit functions can be queried and set via the input registers.

These include the information that generally applies for the control unit as well as parameters and values for motors, pumps, flap, backwater, analogue sensors and others.

Functions

The function code to read the input register is 0x04.

An INPUT register is 16 bits / 2 bytes in size.

Register addresses

The INPUT registers are located in the address range from 0_H to 270E_H (30001 to 39999).

The following registers are currently used for the KESSEL control units:

- 1 - 500 (or: 30001 - 30500):
⇒ General data about the control unit
- 551 - 600 (or: 30551 - 30600):
⇒ Parameters and values for the connected pumps and motors
- 601 - 650 (or: 30601 - 30650):
⇒ Parameters and values for the flap and backwater
- 651 - 700 (or: 30651 - 30700):
⇒ Parameters and values for the sensor system and water level measurement
- 751 - 800 (or: 30751 - 30800):
⇒ Parameters and values for the SonicControl sensor
- 4051 - 4600 (or: 34051 - 34600):
⇒ Scan data and information for the SonicSensor

2.3.1

INPUT 0_H-1_H (30001-30002) | Total running time

The total operating time of the control unit can be read via the INPUT registers 0_H and 1_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
1 - 2	32	Total running time	Factor: 0.01 Offset: 0 Unit: h Range: 0h to 429496729.5h	The value indicates the measured total running time since initial commissioning of the control unit.

2.3.2

INPUT 2_H-3_H (30003-30004) | Power outage time

The power failure duration of the control unit can be read via the INPUT registers 2_H and 3_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
3 - 4	32	Power outage time	Factor: 0.01	The value indicates the measured power outage time since initial commissioning of the control unit.
			Offset: 0	
			Unit: h	
			Range: 0h to 429496729.5h	

2.3.3

INPUT 4_H (30005) | Value Battery voltage

Via the INPUT register 4_H can the battery voltage be read out.

The battery voltage shows the current voltage value of the battery.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
5	8	Battery voltage	Factor: 0.1	Battery voltage value
			Offset: 0	
			Unit: V	
			Range: 0V to 25.5V	
	8	not used		

2.3.4

INPUT 5_H (30006) | Temperature

The temperature of the control unit can be read via the INPUT register 5_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
6	16	Temperature	Factor: 0.1	The value indicates the temperature measured at the control unit.
			Offset: -50	
			Unit: °C	
			Range: -50 °C to 6503.5 °C	

2.3.5

INPUT 6_H (30007) | Mains voltage L1

The mains voltage L1 of the control unit can be read via the INPUT register 6_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
7	16	Mains voltage L1	Factor: 1 Offset: 0 Unit: V Range: 0V to 65535V	Mains voltage L1 value

2.3.6 INPUT 7_H (30008) | Mains voltage L2

The mains voltage L2 of the control unit can be read via the INPUT register 7_H.

ModBus settings Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
8	16	Mains voltage L2	Factor: 1 Offset: 0 Unit: V Range: 0 V to 65535 V	Mains voltage L2 value

2.3.7 INPUT 8_H (30009) | Mains voltage L3

The mains voltage L3 of the control unit can be read via the INPUT register 8_H.

ModBus settings Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
9	16	Mains voltage L3	Factor: 1 Offset: 0 Unit: V Range: 0 V to 65535 V	Mains voltage L3 value

2.3.8 INPUT 9_H (30010) | Language and power-up delay

In the INPUT register 9_H can the selected language be read.

ModBus settings Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
10	8	Language	0 Deutsch	Language value
			1 English	
			2 French	
			3 Italian	
			4 Polish	
			5 Dutch	
			6 Danish	
			7 Finnish	
			8 Icelandic	
			9 Swedish	
			10 Bulgarian	
			11 Russian	
			12 Czech	
			13 Turkish	
	8	not used		

2.3.9 INPUT A_H (30011) | SDS interval

The days for the SDS interval of the control unit can be read via the INPUT register A_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
11	16	SDS interval days	Factor: 1	SDS interval days value
			Offset: 0	
			Unit: d	
			Range: 0d to 65535d	

2.3.10 INPUT B_H (30012) | SDS interval time

The time at which the control unit enters SDS mode can be read via the INPUT register B_H.

The time is divided up into hours and minutes. Each of these are transmitted in 8 bit values

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
12	8	SDS interval time (hours)	Factor: 1 Offset: 0 Unit: h Range: 0h to 255h	Value for the duration of SDS operation (hours)
	8	SDS interval time (minutes)	Factor: 1 Offset: 0 Unit: min Range: 0min to 255min	Value for the duration of SDS operation (minutes)

2.3.11

INPUT C_H-D_H (30013-30014) | Serial number (ZSB)

The ZSB number (the first 6 digits) of the control unit's serial number can be read via the INPUT registers C_H and D_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
13-14	32	Serial number (ZSB)	Factor: 1 Offset: 0 Unit: - Range: 0 to 4294967295	This value indicates the ZSB number of the control unit's serial number.

2.3.12

INPUT E_H (30015) | Serial number (date)

The date of the serial number (digits 7 to 10) can be read via the INPUT register E_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
15	16	Serial number (date)	Factor: 1 Offset: 0 Unit: - Range: 0 to 65535	The value indicates the date of the serial number.

2.3.13

INPUT F_H (30016) | Serial number (sequential number)

The serial number's sequential number (digits 11 to 14) can be read via the INPUT register F_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
16	16	Serial number (sequential number)	Factor: 1 Offset: 0 Unit: Range: 0 to 65535	The value indicates the sequential number of the serial number.

2.3.14

INPUT 226_H–227_H (30551–30552) | Run time pump 1

The running time of pump 1 can be read via the INPUT registers 226_H and 227_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
551 - 552	32	Run time pump 1	Factor: 0.01 Offset: 0 Unit: h Range: 0h to 429496729.5h	Run time pump 1 value

2.3.15

INPUT 228_H–229_H (30553–30554) | Operating cycles 1

The number of operating cycles for Pump 1 can be read via the INPUT registers 228_H and 229_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
553 - 554	32	Operating cycles 1	Factor: 1 Offset: 0 Unit: x Range: 0x to 4294967295x	Operating cycles pump 1 value

2.3.16

INPUT 22A_H–22B_H (30555–30556) | Run time pump 2

The running time of pump 2 in the control unit can be read via the INPUT registers 22A_H and 22B_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
555 - 556	32	Run time pump 2	Factor:	0.01	Run time pump 2 value
			Offset:	0	
			Unit:	h	
			Range:	0h to 429496729.5h	

2.3.17

INPUT 22C_H-22D_H (30557-30558) | Operating cycles 2

The number of operating cycles for pump 2 of the control unit can be read via the INPUT registers 22C_H and 22D_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
557 - 558	32	Operating cycles 2	Factor:	1	Operating cycles pump 2 value
			Offset:	0	
			Unit:	x	
			Range:	0x to 4294967295x	

2.3.18

INPUT 22E_H (30559) | Power supply for Pump 1 (L1)

The current of pump 1 (L1) can be read via the INPUT register 22E_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
559	16	Power supply for Pump 1 (L1)	Factor:	0.1	Value for Pump 1 current (L1)
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.19

INPUT 22F_H (30560) | Power supply for Pump 1 (L2)

The current of pump 1 (L2) can be read via the INPUT register 22F_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
560	16	Power supply for Pump 1 (L2)	Factor:	0.1	Value for Pump 1 current (L2)
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.20

INPUT 230_H (30561) | Power supply for Pump 1 (L3)

The current of pump 1 (L3) can be read via the INPUT register 230_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
561	16	Power supply for Pump 1 (L3)	Factor:	0.1	Value for Pump 1 current (L3)
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.21

INPUT 231_H (30562) | Power supply for pump 2 (L1)

The current of pump 2 (L1) can be read via the INPUT register 231_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
562	16	Power supply for pump 2 (L1)	Factor:	0.1	Value for Pump 2 current (L1)
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.22

INPUT 232_H (30563) | Power supply for pump 2 (L2)

The current of pump 2 (L2) can be read via the INPUT register 232_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
563	16	Power supply for pump 2 (L2)	Factor:	0.1	Value for Pump 2 current (L2)
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.23

INPUT 233_H (30564) | Power supply for pump 2 (L3)

The current of pump 2 (L3) can be read via the INPUT register 233_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
564	16	Power supply for pump 2 (L3)	Factor:	0.1	Value for Pump 2 current (L3)
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.24

INPUT 234_H (30565) | Nominal current pump 1

The rated current of pump 1 in the control unit can be read via the INPUT register 234_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
565	16	Nominal current pump 1	Factor:	0.1	Rated current for Pump 1
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.25

INPUT 235_H (30566) | Nominal current pump 2

The rated current of pump 2 in the control unit can be read via the INPUT register 235_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
566	16	Nominal current pump 2	Factor:	0.1	Rated current for pump 2
			Offset:	0	
			Unit:	A	
			Range:	0A to 6553.5A	

2.3.26

INPUT 236_H (30567) | Pump 1 on delay

The start-up delay for Pump 1 can be read via the INPUT register 236_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
567	16	Pump 1 on delay	Factor:	1	On delay value
			Offset:	0	
			Unit:	s	
			Range:	0s to 65535s	

2.3.27

INPUT 237_H (30568) | Run-on time for pump 1

The run-on time for Pump 1 of the control unit can be read via the INPUT register 237_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
568	16	Run-on time for pump 1	Factor:	1	Value for pump 1 run-down time
			Offset:	0	
			Unit:	s	
			Range:	0s to 65535s	

2.3.28

INPUT 238_H (30569) | Pump 2 on delay

The start-up delay for pump 2 can be read via the INPUT register 238_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
569	16	Pump 2 on delay	Factor:	1	Value for pump 2 start-up delay
			Offset:	0	
			Unit:	s	
			Range:	0s to 65535s	

2.3.29

INPUT 239_H (30570) | Run-on time for pump 2

The run-down time for pump 2 of the control unit can be read via the INPUT register 239_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
570	16	Run-on time for pump 2	Factor:	1	Value for pump 2 run-down time
			Offset:	0	
			Unit:	s	
			Range:	0s to 65535s	

2.3.30

INPUT 23A_H (30571) | Max. run time

The maximum operating time of the control unit can be read via the INPUT register 23A_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
571	16	Max. run time	Factor:	1	Max. run time value
			Offset:	0	
			Unit:	min	
			Range:	0min to 65535min	

2.3.31

INPUT 23B_H (30572) | Max. number of runs

The limit cycle count of the control unit can be read via the INPUT register 23B_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
572	16	Max. number of runs	Factor:	1	Max. number of runs value
			Offset:	0	
			Unit:	x/10min	
			Range:	0 cycles per 10 minutes to 65,535 cycles per 10 minutes	

2.3.32

INPUT 23C_H-23D_H (30573-30574) | Energy usage pumps

The calculated energy consumption of the control unit's pumps can be read via the INPUT registers 23C_H and 23D_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
573 - 574	32	Energy usage pumps	Factor:	0.1	Energy usage pump value
			Offset:	0	
			Unit:	kWh	
			Range:	0kWh to 429496729.5kWh	

2.3.33

INPUT 258_H-259_H (30601-30602) | Backwater phase

The total hold-up time of the control unit can be read via the INPUT registers 258_H and 259_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
601 - 602	32	Backwater phase	Factor:	0.1	Total backwater phase value
			Offset:	0	
			Unit:	h	
			Range:	0h to 429496729.5h	

2.3.34

INPUT 25A_H-25B_H (30603-30604) | Number of backwater occurrences

The total number of backstops for the control unit can be read via the INPUT registers 25A_H and 25B_H.

Two registers have to be used for the output because the value range (maximum value) is too high for one register.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
603 - 604	32	Backwater occurrences	Factor:	1	Total backwater phase of control unit value
			Offset:	0	
			Unit:	x	
			Range:	0x to 4294967295x	

2.3.35

INPUT 25C_H (30605) | Flap current

The valve current of the control unit can be read via the INPUT register 25C_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
605	16	Flap current	Factor:	1	Flap current value
			Offset:	0	
			Unit:	mA	
			Range:	0mA to 65535mA	

2.3.36

INPUT 25D_H (30606) | Maximum flap current

The maximum switching current of the control unit can be read via the INPUT register 25D_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
606	16	Maximum flap current	Factor:	1	Max. flap current value
			Offset:	0	
			Unit:	mA	
			Range:	0mA to 65535mA	

2.3.37

INPUT 25E_H (30607) | On delay flap

The control unit's door latch delay time can be read via the INPUT register 25E_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
607	16	On delay flap	Factor:	1	On delay flap value
			Offset:	0	
			Unit:	s	
			Range:	0s to 65535s	

2.3.38

INPUT 28A_H (30651) | Air bubbling offset

The air injection offset for the pressure sensor of the control unit can be read via the INPUT register 28A_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
651	16	Air bubbling offset	Factor:	1	Pressure sensor's air bubbling offset value
			Offset:	0	
			Unit:	mm	
			Range:	0 mm to 65535 mm	

2.3.39

INPUT 28B_H (30652) | Sensors height

The height of the sensor system can be read via the INPUT register 28B_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
652	16	Sensors height	Factor:	1	Value for the height of the sensor system
			Offset:	0	
			Unit:	mm	
			Range:	0 mm to 65535 mm	

2.3.40

INPUT 28C_H (30653) | Sensing zone level probe

The set measurement range for the level probe can be read via the INPUT register 28C_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
653	16	Sensing zone level sensor	Factor:	1	Sensing zone for the level sensor value
			Offset:	0	
			Unit:	mm	
			Range:	0 mm to 65535 mm	

2.3.41

INPUT 28D_H (30654) | OFF 1 - level

The OFF 1 level to switch off pumping can be read out via the input register 30654.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
654	16	OFF 1 - level	Factor:	1	OFF 1 level to switch off pumping value
			Offset:	0	
			Unit:	mm	
			Range:	0 mm to 65535 mm	

2.3.42

INPUT 28E_H (30655) | OFF 2 - level

The OFF 2 level to switch off the 2nd pump can be read out via the input register 30655.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values		Description
655	16	OFF 2 - level	Factor:	1	OFF 2 level to switch off the 2nd pump
			Offset:	0	
			Unit:	mm	
			Range:	0 mm to 65535 mm	

2.3.43

INPUT 28F_H (30656) | ON 1 - level

The ON 1 level to start pumping can be read out via the input register 30656.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
656	16	ON 1 - level	Factor: 1 Offset: 0 Unit: mm Range: 0 mm to 65535 mm	ON 1 level to start pumping value

2.3.44 INPUT 290_H (30657) | ON 2 - level

The ON 2 level to switch on the 2nd pump can be read out via the input register 30657.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
657	16	ON 2 - level	Factor: 1 Offset: 0 Unit: mm Range: 0 mm to 65535 mm	ON 2 level to switch on the 2nd pump

2.3.45 INPUT 291_H (30658) | Alarm level

The ALARM level can be read via the INPUT register 291_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
658	16	Alarm level	Factor: 1 Offset: 0 Unit: mm Range: 0 mm to 65535 mm	ALARM level value

2.3.46 INPUT 292_H (30659) | Offset pressure sensor

The offset for the pressure sensor can be read via the INPUT register 292_H.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
659	16	Offset pressure sensor	Factor: 1 Offset: -32768 Unit: mm Range: -32768 mm to 32767 mm	Pressure sensor offset value

2.3.47

INPUT 293_H (30660) | Current level

The current water level in the system's tank can be read out via the input register 30664.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
660	16	Current level	Factor: 1	Current (water) level in tank value
			Offset: 0	
			Unit: mm	
			Range: 0 mm to 65535 mm	

2.3.48

INPUT 2EE_H (30751) | Current value for SonicControl sensor

The grease layer thickness and the temperature of the grease separator can be read via the INPUT register 2EE_H.

The values are the last measured values and are output when the corresponding sensor has been installed and activated.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
751	8	Layer thickness	Factor: 1	Layer thickness value
			Offset: -128	
			Unit: cm	
			Range: 0cm to 255cm	
	8	Grease separator temperature	Factor: 1	Grease separator temperature value
			Offset: 0	
			Unit: °C	
			Range: 0 °C to 255 °C	

2.3.49

INPUT 2EF_H (30752) | Alarm layer thickness

The pre-set alarm layer thickness and pre-alarm layer thickness for the SonicControl sensor can be read out via the input register 30752.

The pre-alarm layer thickness indicates the thickness as of which a disposal of the grease separator should be considered.

If the alarm layer thickness is reached, the grease separator has to be disposed of.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
752	8	Alarm layer thickness	Factor: 1 Offset: 0 Unit: cm Range: 0cm to 255cm	Pre-set alarm layer thickness value
	8	Pre-alarm layer thickness	Factor: 1 Offset: 0 Unit: cm Range: 0cm to 255cm	Pre-set pre-alarm layer thickness value

2.3.50

INPUT 2F0_H (30753) | Sensing zone

The measurement range of the SonicControl sensor can be read via the INPUT register 2F0_H.

The register is divided into 2 ranges with 8 bits each. Firstly, the start of the sensing zone is output. And secondly, the end of the sensing zone can be read out.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
753	8	Start of sensing zone	Factor: 1 Offset: 0 Unit: cm Range: 0cm to 255cm	Initial value of the sensing zone
	8	End of sensing zone	Factor: 1 Offset: 0 Unit: cm Range: 0cm to 255cm	Final value of the sensing zone

2.3.51

INPUT 2F1_H (30754) | Start of measuring interval

The start time of the control unit's measurement interval can be read via the INPUT register 2F1_H.

The time is divided up into hours and minutes. Each of these are transmitted in 8 bit values

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
754	8	Measurement interval – Start (hours)	Factor: 1 Offset: 0 Unit: h Range: 0 h to 255 h	Time of start
	8	Measurement interval – Start (minutes)	Factor: 1 Offset: 0 Unit: min Range: 0 mins to 255 mins	Minute of the start time

2.3.52

INPUT 2F2_H (30755) | End of measuring interval

The end time of the control unit's measurement interval can be read via the INPUT register 2F2_H.

The time is divided up into hours and minutes. Each of these are transmitted in 8 bit values

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
755	8	Measurement interval – End (hours)	Factor: 1 Offset: 0 Unit: h Range: 0 h to 255 h	The hour of the end times
	8	Measurement interval – End (minutes)	Factor: 1 Offset: 0 Unit: min Range: 0 mins to 255 mins	The final hour

2.3.53

INPUT 2F3_H (30756) | Level comparison and density

The values for level compensation can be read via the INPUT register 2F3_H. The value is required for the SonicControl sensor settings.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
756	8	Level comparison	Factor: 1 Offset: 0 Unit: cm Range: 0cm to 255cm	Level comparison value

2.3.54

INPUT 0AF1_H (32801) | Separator status

The values for the separator's status can be read via the INPUT register 0AF1_H. This value is required for the correct screen display during the disposal process.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2801	8	Separator status	Factor: 1 Offset: 0 Unit: - Range: 0 to 255	Status of the separator: which screen should be displayed
	8	unused	-	-

2.3.55

INPUT 0AF1_H (32802) | Total remaining time for disposal

The remaining total time for the entire disposal process can be read via the INPUT register 0AF1_H. This value is required to ensure correct display on screen.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2802	16	Total remaining time for disposal	Factor: 1 Offset: 0 Unit: - Range: 0 to 65535	Value of the remaining total time required for disposal

2.3.56

INPUT 0AF2_H-0AF3_H (32803-32804) | Text ID of the current group

The text ID of the currently active group can be read via the INPUT registers 0AF2_H to 0AF3_H. This value is required to ensure the correct display on the waste disposal screen.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2803 – 2804	32	Text ID of the currently active group	Factor: 1 Offset: 0 Unit: - Range: 0 to 4,294,967,295	Value of the text ID for the currently active group

2.3.57

INPUT 0AF4_H (32805) | Time remaining for the group shown

The value for the remaining time of the currently displayed group can be read via the INPUT register 0AF4_H. This value is required for the correct screen display during the disposal process.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2805	16	Time remaining for the group currently on display	Factor: 1 Offset: 0 Unit: - Range: 0 to 65535	Value of the remaining time for the currently displayed group

2.3.58

INPUT 0AF6_H-0AF7_H (32807-32808) | Text ID for pausing the group

The text ID for pausing the group can be read via the INPUT registers 0AF6_H to 0AF7_H. This value is required to ensure the correct display on the waste disposal screen.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2807 – 2808	32	Text ID for pausing the group	Factor: 1 Offset: 0 Unit: - Range: 0 to 4,294,967,295	Text ID value for pausing the group

2.3.59

INPUT 0AF8_H-0AF9_H (32809-32810) | Text ID for explanatory text

The text ID for the information text can be read via the INPUT registers 0AF8_H to 0AF9_H. This value is required to ensure the correct display on the disposal screen.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2809–2810	32	Text ID for the information text	Factor: 1 Offset: 0 Unit: - Range: 0 to 4,294,967,295	Value of the text ID for the note text

2.3.60

INPUT 0AFA_H-0AFB_H (32811-32812) | Status of individual groups in manual mode 1

The status of the individual groups can be read out in manual mode via the INPUT registers 0AFA_H to 0AFB_H. This makes it possible to determine which groups are currently active or inactive. This value is required to ensure the correct display in the manual operation menu.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2811 – 2812	32	Status of the individual groups in manual mode 1	Factor: 1 Offset: 0 Unit: - Range: 0 to 4,294,967,295	Value for the status of the individual groups in manual mode 1

2.3.61

INPUT 0AFC_H-0AFD_H (32813-32814) | Status of individual groups in manual mode 2

The status of the individual groups can be read in manual mode via the INPUT registers 0AFC_H to 0AFD_H. This makes it possible to determine which groups are currently active and which are not. This value is required to ensure correct display in the manual operation menu.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2813 – 2814	32	Status of the individual groups in manual mode 2	Factor: 1 Offset: 0 Unit: - Range: 0 to 4,294,967,295	Value for the status of the individual groups in manual mode 2

2.3.62

INPUT 0AFE_H (32815) | Type of separator

The type of separator (Auto Mix and Pump, Auto Mix, etc.) can be read via the INPUT register 0AFE_H. This value is required to display the correct group texts for the respective separator type.

ModBus settings

Function code: **04_H**

Description

Register	Size [bit]	Designation	Values	Description
2815	16	Type of separator	Factor: 1 Offset: 0 Unit: - Range: 0 to 65535	Value for the type of separator

2.4

Holding register

Description

The HOLDING registers are 'read and write' registers. In other words, values can be read and written. As things stand, with the exception of BF69_H (49001), the registers are used only for read commands. Write commands should be avoided. This is intended for future expansion.

The error and status information for various control unit functions can be queried via the holding registers.

These include the information that generally applies for the control unit as well as status values for motors, pumps, flap, backwater and others.

Functions

The function code to read the holding register is 0x03.

The function code for writing to a HOLDING register is 0x06.

A HOLDING register is 16 bits / 2 bytes in size.

Register addresses

The HOLDING registers are located in the address range from 9C41_H to C34F_H (40001 to 49999).

The following registers are currently used for the Connect Pro 400V switchgear:

- 2804 - 2805 (or: 42804 - 42805):
⇒ Command register for grease separators

2.4.1

HOLDING 0AF3_H | Trigger for starting the programme selection

The trigger for starting programme selection can be set via the HOLDING register 0AF3_H.

ModBus settings

Function code: **03_H**

Description

Register	Size [bit]	Designation	Values	Description
0AF3	16	Trigger for starting the programme selection	Factor: 1 Offset: 0 Unit: Range: 0 to 65535	The value for the trigger used to start the programme selection.

2.4.2

HOLDING 0AF4_H | Set the status of the disposal process

The status of the disposal process can be set via the HOLDING register 0AF4_H.

ModBus settings

Function code: **03_H**

Description

Register	Size [bit]	Designation	Values	Description
0AF4	16	Set the status of the disposal process	Factor: 1 Offset: 0 Unit: Range: 0 to 65535	The status of the disposal process can be set using this value.

