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Modbus RTU

PLC200

User's Manual

User’s Manual

PLC200

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The information below describes the reviews made in this manual.

Version	Revision	Description
V1.00.XX	R00	First edition.
V1.01.XX	R01	Modification in the parameter structure.
V1.02.XX	R02	General review.

CONTENTS

ABOUT THE MANUAL

This manual supplies the necessary information for the operation of the PLC200 programmable logic controller using the Modbus RTU protocol. This manual must be used together with the PLC200 user's manual and programming manual.

ABBREVIATIONS AND DEFINITIONS

ASCII American Standard Code for Information Interchange
CRC Cyclic Redundancy Check
EIA Electronic Industries Alliance
RTU Remote Terminal Unit
TIA Telecommunications Industry Association
LSB Least Significant Bit/Byte
MSB Most Significant Bit/Byte
ro Read only
rw Read/write
cfg Configuration

NUMERICAL REPRESENTATION

Decimal numbers are represented by means of digits without suffix. Hexadecimal numbers are represented with the letter 'h' after the number. Binary numbers are represented with the letter 'b' after the number.

DOCUMENTS

The Modbus protocol was developed based on the following specifications and documents:

Document	Version	Source
MODBUS Application Protocol Specification, December 28th 2006.	V1.1b	MODBUS.ORG
MODBUS Protocol Reference Guide, June 1996.	Rev. J	MODICON
MODBUS over Serial Line, December 20th 2006.	V1.02	MODBUS.ORG

In order to obtain this documentation, consult MODBUS.ORG, which is nowadays the organization that keeps, publishes and updates the information related to the Modbus protocol.

IMPORTANT NOTICE ABOUT CYBERSECURITY AND COMMUNICATIONS

This product/equipment can connect and exchange information through networks and communication protocols. It has been designed and subjected to tests to ensure correct operation with other automation systems using the protocols mentioned in this manual. Therefore, it is essential that the customer understands the responsibilities in connection with information and cybersecurity when using this equipment.

Consequently, it is the exclusive obligation of the customer to adopt in-depth defense strategies and implement policies and measures to ensure the security of the system as a whole, including with regard to communications sent and received by the equipment. Among such measures, we can point out the installation of firewalls, antivirus and malware protection applications, data encryption, authentication control and physical user access.

WEG and its affiliates take no liability for damages or losses arising from cybersecurity breaches, including, but not limited to, unauthorized access, intrusion, information, or data leak and/or theft, denial-of-service attacks, or any other form of security breach. Using this product under conditions for which it was not specifically designed is not recommended and may result in damage to the product, the network, and the automation system. Thus, it is essential that the customer understand that the external intervention by third-party software applications, such as sniffers or applications with similar actions, has the potential to cause interruptions or restrictions in the functionality of the equipment.

TRADEMARKS

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1 MAIN CHARACTERISTICS

Below are the main characteristics for Modbus RTU communication of the programmable logic controller PLC200.

- Interface according to EIA/TIA-485 standard.
- Interface galvanically insulated and with differential signal, providing more robustness against electromagnetic interference.
- It allows the device to operate as Modbus RTU server.
- Allows data communication for equipment operation and parameterization.
- Enables communication using baud rates from 9600 up to 256000 Kbit/s.
- It allows the connection of up to 32 devices to the same segment. More devices can be connected by using repeaters.
- Maximum bus length of 1000 meters.

1.1 MODBUS RTU

Two transmission modes are defined in the Modbus protocol specification for the serial interface: ASCII and RTU. These modes define the way the message bytes are transmitted. It is not possible to use the two transmission modes in the same network. The PLC200 programmable logic controller uses only the RTU mode for the telegram transmission.

It allows up to 247 servers, but only one client.

It adds to the Modbus PDU an address and error-checking field. The association of these fields to the PDU is called ADU (Application Data Unit).

Modbus RTU telegram format:

- Address: used to identify the server.
- PDU: Modbus PDU.
- CRC: field for checking the transmission errors.

The client initiates the communication sending a byte with the address of the server to which the message is destined. When sending the answer, the server also initiates the telegram with its own address. The client can also send a message to the address 0 (zero), which means that the message is destined to all the servers in the network (broadcast). In that case, no server will answer to the client.

The last part of the telegram is the field for checking the transmission errors. The used method is the CRC-16 (Cycling Redundancy Check). This field is formed by two bytes; where first the least significant byte is transmitted (CRC-), and then the most significant (CRC+). The CRC calculation form is described in the protocol specification.

In the RTU mode there is no specific character that indicates the beginning or the end of a telegram. The indication of when a new message begins or when it ends is done by the absence of data transmission in the network, for a minimum period of 3.5 times the transmission time of a data byte (11 bits). Thus, in case a telegram has initiated after the elapsing of this minimum time, the network elements will assume that the first received character represents the beginning of a new telegram. And in the same manner, the network elements will assume that the telegram has reached its end when after receiving the telegram elements, this time has elapsed again.

If during the transmission of a telegram the time between the bytes is longer than this minimum time, the telegram will be considered invalid because the frequency inverter will discard the bytes already received and will mount a new telegram with the bytes that were being transmitted.

For communication rates higher than 19200 bit/s, the used times are the same as for that rate. The next table shows us the times for different communication transmission rates:

Table 1.1: *Communication rates and the time periods involved in the telegram transmission*

Baud rate	T_{11bits}	$T_{3.5x}$
1200 bits/s	9.167 ms	32.083 ms
2400 bits/s	4.583 ms	16.042 ms
4800 bits/s	2.292 ms	8.021 ms
9600 bits/s	1.146 ms	4.010 ms
19200 bits/s	573 μs	2.005 ms
38400 bits/s	573 μs	2.005 ms
57600 bits/s	573 μs	2.005 ms

- T_{11bits} = Time for transmitting one byte of the telegram.
- $T_{3.5x}$ = Minimum interval to indicated beginning and end of a telegram (3.5 x T_{11bits}).

2 INTERFACE DESCRIPTION

The PLC200 programmable logic controller has an RS485 interface for communication with Modbus RTU protocol. Characteristics of this interface are described next.

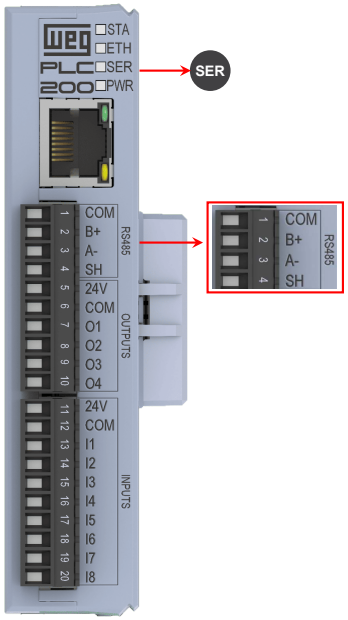


Figure 2.1: *Connector and indications for PLC200*

2.1 CONNECTOR

The RS485 interface is available through a 4-way plug-in connector with the following pin assignment:

Table 2.1: *Pin assignment of connector for RS485*

Pin	Name	Function
1	COM	0V isolated from the RS485 circuit, used to enable the connection of this point to the reference 0V of the other network devices.
2	+B	RxD/TxD positive.
3	-A	RxD/TxD negative.
4	SH	Connection to the protective earth, normally used to connect the shield of the communication cable.

2.2 INDICATION LEDS

The programmable logic controller PLC200 has a bicolor LED SER (green and red), as shown in the Figure 2.1 on page 2-1, which indicates the status of the communication.

The Table 2.2 on page 2-2 show the behavior of this LED SER depending on the state of the programmable logic controller:

Table 2.2: LED SER

Indication	Description
Off	No power.
Flashing green/red (500ms each)	It occurs during initialization.
Red, fast flashing (100ms ON / 100ms OFF)	Indicates data reception error on the RS485 interface.
Red, flashing (500ms ON / 500ms OFF)	Timeout error when receiving data via Modbus RTU.
Flickering green	When a telegram is transmitted to the network.

2.3 TERMINATING RESISTOR

The programmable logic controller PLC200 has a parameter (P0618) that allows the product's internal termination resistor to be enabled.

3 INSTALLATION OF THE EQUIPMENT IN NETWORK

For the connection of the programmable logic controller PLC200 using the RS485 interface, the following points must be observed:

3.1 COMMUNICATION RATE

The RS485 interfaces of the PLC200 programmable logic controller can communicate using the rates defined on the Table 3.1 on page 3-1.

Table 3.1: *Supported baud rates*

Baud Rate
9600 bit/s
19200 bit/s
38400 bit/s
57600 bit/s
76800 bit/s
115200 bit/s
230400 bit/s
256000 bit/s

All network equipment must be programmed to use the same communication baud rate.

3.2 ADDRESS IN THE MODBUS RTU NETWORK

Each Modbus RTU network device must have an address, and may range from 1 to 247. This address must be unique for each equipment.

3.3 TERMINATION RESISTOR

The use of termination resistors at the ends of the bus is essential to avoid line reflection, which can impair the signal and cause communication errors. Termination resistors of 120 Ω | 0.25 W must be connected between the signals +B and -A at the ends of the main bus.

It worth to mention that, in order to allow the disconnection of the element from the network without damaging the bus, it is interesting to put active terminations, which are elements that only play the role of the termination. Thus, any equipment in the network can be disconnected from the bus without damaging the termination.

3.4 CABLES

Recommended characteristics of the cable used in the installation:

- It is recommended the use of a shielded cable with a twisted pair for the signals +B and -A, 24 AWG minimum.
- It is also recommended that the cable has one more wire for the interconnection of the 0V reference signal.
- Maximum length for connection between devices: 1000 m.

To perform the installation, it is recommended the use of shielded cables specific for use in industrial environment.

3.5 CONNECTION IN THE NETWORK

In order to interconnect the several network nodes, it is recommended to connect the equipment directly to the main line without using derivations. During the cable installation the passage near to power cables must be avoided, because, due to electromagnetic interference, this makes the occurrence of transmission errors possible.

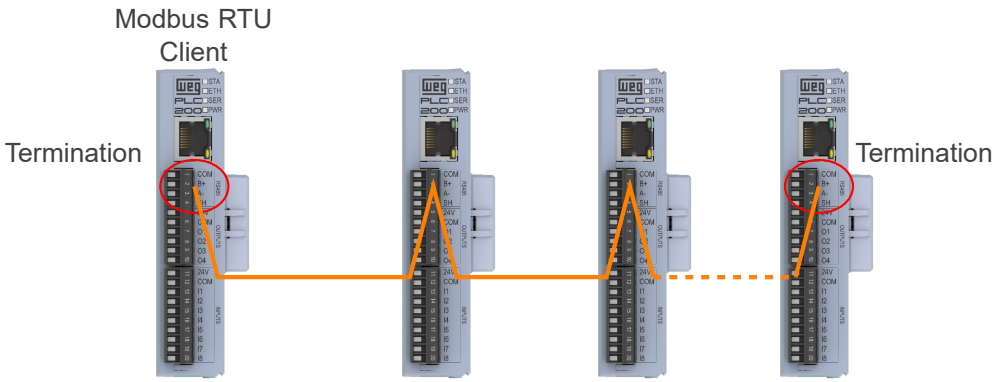


Figure 3.1: *Modbus RTU network installation example*

In order to avoid problems with current circulation caused by difference of potential among ground connections, it is necessary that all the devices be connected to the same ground point.

The maximum number of devices connected to a single segment of the network is limited to 32. Repeaters can be used for connecting a bigger number of devices.

3.6 RECOMMENDATIONS FOR GROUNDING AND CABLE PASSAGE

The correct connection to ground reduces problems caused by interference in an industrial environment. Below are some recommendations regarding grounding and cable passage:

- It is recommended the use of equipment suitable for the industrial environment.
- The cable must be laid separately (and far away if possible) from the power cables.
- All the network devices must be properly grounded, preferably at the same ground connection.
- Always use shielded cables, as well as connectors with metal housing.
- Use fastening clamps in the main grounding point, allowing a greater contact area between the cable shield and the grounding.
- Avoid connection of the cable in multiple grounding points, especially where groundings of different potentials are present.

4 PRODUCT

Allows access to status and configuration parameters of the product.

Parameters P0000 to P0999 refer to the product. Parameters above P1000 refer to accessories and observe the following logic:

P-x-y-z-w

X-Accessory model as per: 1-Digital Models; 3-Analog Inputs (AI, TH, RTD); 5-Analog Outputs; 7-Load Cell Input; 9-Smart Connection.

Y-Intrabus address of the accessory depending on the position it is connected to: 1-Slot 1 (first accessory); 2-Slot 2 (second accessory); ... 8-Slot 8 (eighth accessory).

NOTE!
This manual does not present the description of the parameters for all intrabus addresses, but Slot 1, which is the same for the others. For example: if you want to know the description of P1200, P1300, P1400, P1500, P1600, P1700 or P1800, just see the description of P1100.

NOTE!
By default, product parameters **are not retentive**. For a parameter or settings to be maintained after the PLC200 is turned off, it is necessary to save the parameters in Flash memory through P0204.

NOTE!
The full list of parameters can be seen in the Section 9 QUICK REFERENCES on page 9-1.

4.1 STATUS

Parameters for status indications and reading of the main module inputs.

4.1.1 Communication

4.1.1.1 Serial RS485

P0095: Modbus RTU Program Status

Adjustable Range:	0 ... 1	**Factory Setting:**	0
Properties:	ro, enum		

Description:

It indicates the status of the Modbus RTU program.

Indication	Description
0 = Modbus RTU Client Enabled	The Modbus RTU client is enabled.
1 = Modbus RTU Client Disabled	Modbus RTU client is disabled.

P0625: RS485 - Interface Status

Adjustable Range:	0 ... 2	**Factory Setting:**	0
Properties:	ro, enum		

Description:

It indicates the status of the RS485 serial interface.

Indication	Description
0 = Inactive	Not used.
1 = Active	Serial interface active.
2 = Timeout Error	It indicates that the product did not receive valid telegrams for a longer time than the setting in P0623.

P0626: RS485 - Received Telegrams

Adjustable Range:	0 ... 65535	**Factory Setting:**	0
Properties:	ro, 16bit		

Description:

It indicates the number of telegrams received.

P0627: RS485 - Transmitted Telegrams

Adjustable Range:	0 ... 65535	**Factory Setting:**	0
Properties:	ro, 16bit		

Description:

It indicates the number of telegrams transmitted.

P0628: RS485 - Telegrams with Error

Adjustable Range:	0 ... 65535	**Factory Setting:**	0
Properties:	ro, 16bit		

Description:
It indicates the number of telegrams received with errors (CRC, Checksum).

P0629: RS485 - Reception Errors

Adjustable Range:	0 ... 65535	**Factory Setting:**	0
Properties:	ro, 16bit		

Description:
It indicates the number of bytes received with errors.

The counters are cyclic, that is, when it reaches 65535, it returns to 0.

4.2 CONFIGURATION

It allows accessing the product setting parameters.

4.2.1 Communication

4.2.1.1 Communication Errors

It allows setting the operation for the communication interfaces and related protocols.

P0624: Action for Communication Error

Adjustable Range:	0 ... 1	**Factory Setting:**	1
Properties:	rw, enum		

Description:
It allows configuring the protection tripping mode for communication error.

Indication	Description
0 = Alarm	No action is taken; an alarm is indicated.
1 = Fault	It actuates on the outputs as programmed in the error mode of each output (P0904 and P0906 for the main unit outputs. For the accessories, check the parameter for each model and position).

4.2.1.2 I/O Data

It sets the cyclic data exchange area of the communication networks.

Reading Data

Defines a set of 16-bits parameters to be read via communication network.

P0873: Readings Quantity

Adjustable Range:	1 ... 50	**Factory Setting:**	2
Properties:	rw, 8bit		

Description:

It sets the number of programmable reading words for data exchange with the network.

P15000...P15049: Read Word

Adjustable Range:	0 ... 65535	**Factory Setting:**	0
Properties:	rw, 16bit		

Description:

It selects the address (Net Id) of the parameter whose content should be provided in the reading area for the fieldbus interfaces.

The size of the referenced parameter must be taken into account. If the data size is greater than 16 bits, the configuration parameter of the next programmable word must be set to the same address.

Writing Data

It defines a set of 16-bit parameters to be written via communication network.

P0875: Writings Quantity

Adjustable Range:	1 ... 50	**Factory Setting:**	2
Properties:	rw, 8bit		

Description:

It sets the number of programmable writing words for data exchange with the network.

P15250...P15299: Write Word

Adjustable Range:	0 ... 65535	**Factory Setting:**	0
Properties:	rw, 16bit		

Description:

It selects the address (Net Id) of the parameter whose content should be provided in the writing area for the fieldbus interfaces.

The size of the referenced parameter must be taken into account. If the data size is greater than 16 bits, the configuration parameter of the next programmable word must be set to the same address.

4.2.1.3 Serial RS485

Configuration of the RS485 communication interface and the protocols that use this interface.

P0094: Modbus RTU Program Command

Adjustable Range:	0 ... 1	**Factory Setting:**	0
Properties:	rw, enum		

Description:

Modbus RTU Program Command.

Indication	Description
0 = Enable Modbus RTU Client	It enables the Modbus RTU client.
1 = Disable Modbus RTU Client	It disables the Modbus RTU client.

P0617: RS485 - Gateway Modbus TCP/RTU Timeout

Adjustable Range:	1 ... 65535	**Factory Setting:**	200
Properties:	rw, 16bit		

Description:

Modbus RTU server reception timeout (Modbus TCP Gateway).

P0618: RS485 - Termination resistor

Adjustable Range:	0 ... 255	**Factory Setting:**	0
Properties:	rw, enum		

Description:

It connects/disconnects the network internal termination resistor.

Indication	Description
0 = Not connected	Termination resistor disconnected.
1 = Connected	Termination resistor connected.

P0619: RS485 - Protocol

Adjustable Range:	0 ... 2	**Factory Setting:**	2
Properties:	rw, enum		

Description:

It configures the RS485 interface protocol.

Indication	Description
0 = Not used	Not available.
1 = Modbus RTU Client	Client Modbus RTU serial protocol.
2 = Modbus RTU	Server Modbus RTU serial protocol.

P0620: RS485 - Address

Adjustable Range:	1 ... 247	**Factory Setting:**	1
Properties:	rw, 8bit		

Description:

Indicates/configures the current value of the address used for the RS485 interface.

P0621: RS485 - Baud Rate

Adjustable Range:	0 ... 7	**Factory Setting:**	1
Properties:	rw, enum		

Description:

Indicates/configures the current value of the baud rate used for the RS485 interface.

Indication	Description
0 = 9600 bit/s	Rate of 9600 bits per second.
1 = 19200 bit/s	Rate of 19200 bits per second.
2 = 38400 bit/s	Rate of 38400 bits per second.
3 = 57600 bit/s	Rate of 57600 bits per second.
4 = 76800 bit/s	Rate of 76800 bits per second.
5 = 115200 bit/s	Rate of 115200 bits per second.
6 = 230400 bit/s	Rate of 230400 bits per second.
7 = 256000 bit/s	Rate of 256000 bits per second.

P0622: RS485 - Bytes configuration

Adjustable Range:	0 ... 5	**Factory Setting:**	1
Properties:	rw, enum		

Description:

Indicates/configures the current value of the byte configuration used for the RS485 interface.

Indication	Description
0 = 8-bits, no, 1	8 bits, no parity, 1 stop bit.
1 = 8-bits, even, 1	8 bits, with even parity, 1 stop bit.
2 = 8-bits, odd, 1	8 bits, with odd parity, 1 stop bit.
3 = 8-bits, no, 2	8 bits, no parity, 2 stop bits.
4 = 8-bits, even, 2	8 bits, with even parity, 2 stop bits.
5 = 8-bits, odd, 2	8 bits, with odd parity, 2 stop bits.

P0623: RS485 - Timeout

Adjustable Range:	0.0 ... 999.0 s	**Factory Setting:**	0.0
Properties:	rw, 16bit		

Description:

RS485 communication fault protection.

If the product does not receive valid telegrams for a longer time than the setting, a communication error will be generated, and the action programmed in the P0624 will be executed.

Time counting will start from the first valid telegram received.

5 OPERATION IN THE MODBUS RTU NETWORK – SERVER

The PLC200 programmable logic controller has the following characteristics when operated as a server in Modbus RTU network:

- Network connection via RS485 serial interface.
- Address, communication rate and byte format defined by equipment parameters.
- It allows the PLC200 programmable logic controller programming and control via the access to parameters.

5.1 AVAILABLE FUNCTIONS

In the Modbus specification are defined the functions used to access different types of data. In the PLC200, in order to access those data the following services (or functions) have been made available:

Table 5.1: *Supported Modbus Functions*

Code	Name	Description
01	Read Coils	Reading of bit blocks of the coil type
02	Read Discrete Inputs	Reading of bit blocks of the discrete input type
03	Read Holding Registers	Reading of register blocks of the holding register type
04	Read Input Registers	Reading of register blocks of the input register type
05	Write Single Coil	Writing in a single bit of the coil type
06	Write Single Register	Writing in a single register of the holding type
15	Write Multiple Coils	Writing in bit blocks of the coil type
16	Write Multiple Registers	Writing in register blocks of the holding register type
22	Mask Write Register	Writing in holding register using mask
23	Read/Write Multiple registers	Reading and writing in register blocks of the holding register type
43	Read Device Identification	Identification of the device model

5.2 MEMORY MAP

The programmable logic controller PLC200 has different types of data accessible through the Modbus communication. These data are mapped at data addresses and access functions as described in the following items.

5.2.1 Parameters

The PLC200 Modbus communication is based on the reading/writing of the equipment parameters. All the drive parameters list is made available as 16-bit holding registers type. The data addressing is done with the offset equal to zero, which means that the parameter number corresponds to the register number. The Table 5.2 on page 5-1 illustrates the parameters addressing, which can be accessed as holding register.

Table 5.2: *Parameters Access - Holding Registers*

Parameter	Modbus data address (decimal)
P0000	0
P0001	1
⋮	⋮
P0100	100
⋮	⋮

It is necessary to know the device list of parameters to be able to operate the equipment. Thus, it is possible to identify what data are needed for the status monitoring and the control of the functions. The main parameters are:

Monitoring (reading):

- P1100 (holding register address 1100): Slot 1 - Digital Inputs (DIs)

Command (writing):

- P1102 (holding register address 1102): Slot 1 - Digital Outputs (DOs)

Refer to the Programming Manual for a complete parameter list of the equipment.

NOTE!

- All the parameters are treated as holding registers. Depending on the client that is used, those registers are referenced starting from the base address 40000 or 4x. In this case, the address that must be programmed in the client for a parameter is the address showed in the Table 5.2 on page 5-1 added to the base address. Refer to the client documentation to find out how to access holding registers.
- It should be noted that read-only parameters can only be read from the equipment, while other parameters can be read and written through the network.

5.2.2 Indirect Parameters

The protocol Modbus does not define a dedicated channel of cyclic data like in other networks. However, the PLC200, has programmable registers to optimize the access to non-contiguous parameter areas.

The holding registers with addresses P15500 to P15549 are used to read parameters mapped from P15000 up to P15049, while the ones with addresses P15750 to P15799 are used to write values of the parameters mapped on P15250 up to P15299.

Table 5.3: *Relationship between configuration parameters and access address*

Programmable Parameter	Indirect Access Register	Description
P15000 Read Word #1	P15500	Register P15500 contains the value of the parameter whose Net Id is configured in P15000.
⋮		
P15049 Read Word #50	P15549	Register P15549 contains the value of the parameter whose Net Id is configured in P15049.
P15250 Write Word #1	P15750	Register P15750 contains the value of the parameter whose Net Id is configured in P15250.
⋮		
P15299 Write Word #50	P15799	Register P15799 contains the value of the parameter whose Net Id is configured in P15299.

With this configuration, it is possible to send a request of function 03 (Read Holding Registers) with address of the initial register P15500, and quantity of 2 registers to access two non-sequential parameters in just one request (Table 5.4 on page 5-2). Otherwise, several requests would be necessary to access all these data.

Table 5.4: *Example of use of the area of indirect access to the parameters*

Programmable parameter	Indirect access register	Description
P15000 = 900	P15500	Register P15500 contains the value of the P0900 Digital Inputs (DIs).
P15001 = 900	P15501	Register P15501 contains the value of the P0900 Digital Inputs (DIs).
P15002 = 1100	P15502	Register P15502 contains the value of the P1100 Slot 1 - Digital Inputs (DIs).
P15003 = 1100	P15503	Register P15503 contains the value of the P1100 Slot 1 - Digital Inputs (DIs).

Similarly, several parameters can be written in sequence.

More information is available at Section 4.2.1.2 I/O Data on page 4-3.

5.2.3 Markers

Besides the parameters, other types of data such as bit, word or float markers can also be accessed using the Modbus protocol.

NOTE!
The WPS programming software (WEG Programming Suite) has lists that allow you to view all types of markers available for the PLC200. In these lists, there is a field to indicate the address of the Modbus register for accessing the marker.

5.3 DATA ACCESS

The Modbus protocol allows the access only by bits or by 16-bits registers.

To make it possible to write or read a block of more than 2 registers without an error return even if there is an invalid register in the selected range, the following definitions have been used:

- Reading registers that do not represent available parameters return the value zero when the requested number of registers is greater than 2. For requests with a quantity equal to 1 or 2 registers, error code 2 (Invalid data address) is returned.
- Write to registers that represent read-only or invalid parameters have no effect and do not return error when the requested number of registers is greater than 2. For requests with a quantity equal to 1 or 2 registers, error code 2 (Invalid data address) is returned.

Data types greater than 16 bits must be accessed as multiple registers. If the number of registers requested is not sufficient to access the full size of the data type, error code 2 (Invalid data address) is returned.

For example, the float data type take four bytes of memory. In the access by registers, it is necessary to read or write two registers in sequence (least significant value in the first register) so that the four bytes will be accessed.

The Modbus protocol defines that in order to transmit a 16-bits register, the most significant byte (MSB) must be transmitted first. Therefore, if four registers are read in a row, from the register with address 0, the content of each register will be transmitted the following way:

1st Register – 0		2nd Register – 1		3rd Register – 2		4th Register – 3	
W0 MSB	W0 LSB	W1 MSB	W1 LSB	W2 MSB	W2 LSB	W3 MSB	W3 LSB

5.4 GATEWAY MODBUS TCP/RTU

When the RS485 interface is configured as a Modbus RTU client, messages received by the server that contain Unit ID values between 1 and 247 will be forwarded through the Modbus RTU client via RS485 to the servers on this network.

Messages with Unit ID equal to 0 or 255 will be interpreted by the PLC200.

Messages with Unit ID from 248 to 254 return error.

If a Modbus RTU server response timeout occurs, the gateway will return a telegram indicating an error to the Modbus TCP client that originated the request.

5.5 COMMUNICATION ERRORS

Communication errors may occur in the transmission of telegrams, as well as in the contents of the transmitted telegrams.

In the event of a successful reception, during the treatment of the telegram, the server may detect problems and send an error message, indicating the kind of problem found:

Table 5.5: *Error codes for Modbus*

Error Code	Description
1	Invalid function: the requested function is not implemented for the equipment.
2	Invalid data address: the data address (register or bit) does not exist.
3	Invalid data value: ■ Value out of the allowed range. ■ Writing on data that cannot be changed (read only register or bit).
4	Modbus TCP/RTU gateway cannot forward message because the server address is invalid.
10	Modbus TCP/RTU gateway is disabled.
11	Modbus TCP/RTU gateway identified timeout, waiting for response from the server.

NOTE!
It is important that it be possible to identify at the client what type of error occurred, in order to be able to diagnose problems during the communication.

6 OPERATION IN THE MODBUS RTU NETWORK – CLIENT

Besides to operating as a server, the programmable logic controller PLC200 also allows operation as a Modbus RTU network client.

The sending and reception of telegrams via the Ethernet interface using the Modbus RTU protocol is programmed using blocks in ladder programming language. It is necessary to know the available blocks and ladder programming software to be able to program the network client.

The PLC200, the following functions are available for sending requests via the Modbus RTU client:

Table 6.1: *Supported Modbus Functions*

Code	Name	Description
01	Read Coils	Reading of bit blocks of the coil type.
02	Read Discrete Inputs	Reading of bit blocks of the discrete input type.
03	Read Holding Registers	Reading of register blocks of the holding register type.
04	Read Input Registers	Reading of register blocks of the input register type.
05	Write Single Coil	Writing in a single bit of the coil type.
06	Write Single Register	Writing in a single register of the holding type.
15	Write Multiple Coils	Writing in bit blocks of the coil type.
16	Write Multiple Registers	Writing in register blocks of the holding register type.

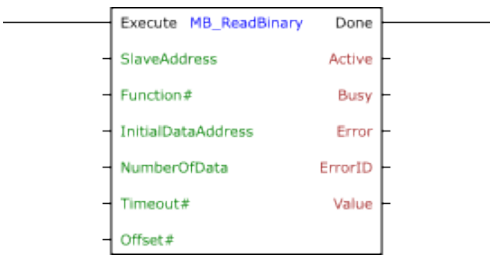
6.1 BLOCKS FOR PROGRAMMING

To control and monitor Modbus RTU communication using the programmable logic controller PLC200, the following blocks were developed, which must be used during ladder programming.

NOTE!
For more details, see the WPS (WEG Programming Suite) manual, available at **http://www.weg.net**.

6.1.1 MB Read Binary – Bit Reading

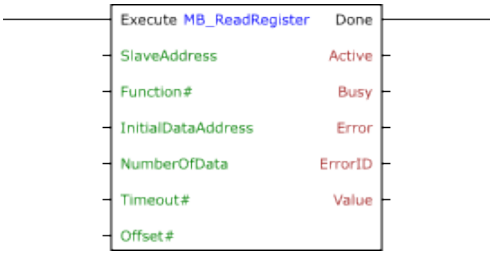
Block for reading bits. It allows to read up to 128 bits in sequence of the server, using the functions 1 (Read Coils) and 2 (Read Discrete Inputs) of the Modbus.



It has an enabling input of the “Execute” block and a “Done” output, which is activated after the end of the successful execution of the function. After the positive transition of ”Execute”, a new telegram is sent by the Modbus RTU client when the interface RS485 is free. At the successful end of the operation – response received from the server – the “Done” output is activated, remaining active while the input is active, and the data received are copied to “Value”. In case of error in the execution of the request, the output “Error” is activated and the error code is placed in “ErrorID”.

6.1.2 MB Read Register – Register Reading

Block for reading the registers of 16 bits. It allows to read up to 64 registers in sequence of the server, using the functions 3 (Read Holding Registers) and 4 (Read Inputs Registers) of the Modbus.



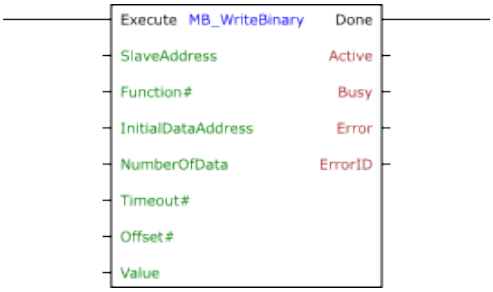
It has an enabling input of the “Execute” block and a “Done” output, which is activated after the end of the successful execution of the function. After the positive transition of ”Execute”, a new telegram is sent by the Modbus RTU client when the interface RS485 is free. At the successful end of the operation – response received from the server – the “Done” output is activated, remaining active while the input is active, and the data received are copied to “Value”. In case of error in the execution of the request, the output “Error” is activated and the error code is placed in “ErrorID”.

NOTE!

- The Modbus protocol, using functions 3 and 4, allows the reading of registers of 16 bits only. For reading data with more than 16 bits (one REAL, for instance), it is possible to read multiple registers, and save the value in a variable with size over 16 bits.
- It is important that the number of registers read be compatible with the size of the variable or array where the data will be saved.

6.1.3 MB Write Binary – Bit Writing

Block for writing bits. It allows to write up to 128 bits using functions 5 (Write Single Coil) and 15 (Write Multiple Coils) of the Modbus.



It has is an enabling input of the “Execute” block and a “Done” output, which is activated after the end of the successful execution of the function. After the positive transition of ”Execute”, a new telegram is sent by the Modbus RTU client when the interface RS485 is free. At the successful end of the operation – response received from the server – the “Done” output is activated, remaining active while the input is active. In case of error in the execution of the request, the output “Error” is activated and the error code is placed in “ErrorID”.

6.1.4 MB Write Register – Register Writing

Block for writing registers. It allows to write one or more registers using function 6 (Write Holding Register) or 16 (Write Multiple Registers) of the Modbus.

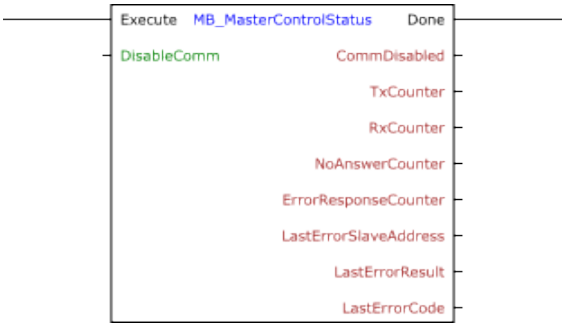
It has an enabling input of the “Execute” block and a “Done” output, which is activated after the end of the successful execution of the function. After the positive transition of ”Execute”, a new telegram is sent by the Modbus RTU client when the interface RS485 is free. At the successful end of the operation – response received from the server – the “Done” output is activated, remaining active while the input is active. In case of error in the execution of the request, the output “Error” is activated and the error code is placed in “ErrorID”.

NOTE!

- The Modbus protocol, using function 16, allows the writing of registers of 16 bits only. For reading data with more than 16 bits (one REAL, for instance), it is possible to write multiple registers, and use a variable with size over 16 bits as data source.
- It is important that the number of registers written be compatible with the size of the variable or array from where the data are used.

6.1.5 MB Master Control/Status – Modbus RTU Control and Status

Block to control and monitor the Modbus RTU client. Whenever the Modbus RTU network is assembled with the PLC200 as client, it is recommended to use this block to obtain information on the communication state.



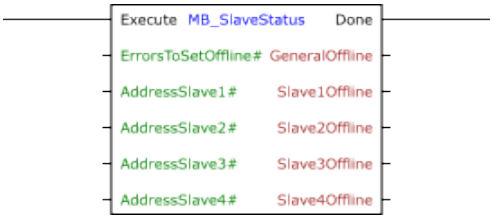
It has an enabling input of the “Execute” block and a “Done” output, which is activated after the end of the execution of the function. While the “Execute” enabling input is active, the input data are used and the output data are updated. In case the input is reset, the input values are disregarded and the output arguments are reset. The “Done” output reflects the input value.

NOTE!

The data accessed through the use of this block is also available through reading and writing system markers.

6.1.6 MB Server Status – Modbus RTU Network Server Status

Block to monitor the servers in the Modbus RTU network. It must be used in case it is desired to identify problems in the communication between the client and some server in the Modbus RTU network.



It has an ”Execute” block enabling input, and a ”Done” output which is activated after the end of the function’s successful performance. While the ”Execute” enabling input is active, the input data is used and the output data is updated at every performance of the block. Output ”Done” reflects the value of the input.

7 STARTUP GUIDE - MODBUS RTU

The main steps to start up the PLC200 programmable logic controller on Modbus RTU network are described below. These steps represent an example of use. Check out the specific chapters for details on the indicated steps.

7.1 INSTALLING THE ACCESSORY

1. Install the programmable logic controller PLC200 on Modbus RTU network and perform the necessary operation settings as indicated in the Section 2 INTERFACE DESCRIPTION on page 2-1.
2. Connect the cables, considering the recommended instructions in network installation, as described in the Section 3 INSTALLATION OF THE EQUIPMENT IN NETWORK on page 3-1:
   - Use shielded cable.
   - Properly ground network equipment.
   - Avoid laying communication cables next to power cables.

7.2 CONFIGURING THE EQUIPMENT

1. Follow the recommendations described in the user manual to program the device parameters related to desired functions for the I/O signals, etc.
2. Configure communication settings, such as address, baudrate, parity, etc., using parameters (P0619 ... P0622).
3. Configure the timeout for the Modbus RTU communication in parameter P0623.
4. Program the desired action for the equipment in case of communication fault in parameter P0624.
5. Define which data will be read and written at programmable logic controller PLC200, based on its parameter list. It is not necessary to define I/O words. The Modbus RTU protocol enables direct access to any device parameter, and does not distinguish between cyclic and acyclic data. Among the main parameters that can be used to control the device, we can mention:
   - P1100 Slot 1 - Digital Inputs (DIs). (read).
   - P1200 Slot 2 - Digital Inputs (DIs). (read).
   - P1102 Slot 1 - Digital Outputs (DOs). (write).
   - P1202 Slot 2 - Digital Outputs (DOs). (write).

NOTE!

The necessary settings for the product can be made in different ways. Some options are:

- On the bench or in the place of use, using a computer with the WPS software, create a project for the PLC200 programmable logic controller, individually connect the computer to the product's RS485 interface, or USB interface, and write the configuration. If necessary, use a USB-RS485 adapter for the computer.
- If the network client allows, use the Modbus RTU client itself to write the product configuration parameters via the RS485 interface during the application configuration step.
- The network client can be programmed to write the settings cyclically, so that, even if the product is replaced, the new product will be properly configured for the application.

7.3 CONFIGURING THE CLIENT

The way the network configuration is done depends greatly on the used client and the configuration tool. It is essential to know the tools used to perform this activity. In general, the following steps are necessary to perform the network configuration.

1. Configure the client to access the holding registers, based on the defined equipment parameters to read and write. The register address is based on the parameter's network address (Net Id), as shown in the Table 5.2 on page 5-1.
2. It is recommended that reading and writing are done in a cyclic manner, allowing detection of communication errors by timeout. The period of data update must be in accordance with the value programmed in parameter P0623.

7.4 COMMUNICATION STATUS

Once the network is assembled and the client programmed, it is possible to use the LED SER and parameters of the equipment to identify some status related to the communication.

- The LED SER provide information about the status of the interface and communication.
- The parameter P0625 indicates the status of communication between the device and the network client.

The client of the network must also supply information about the communication with the server.

8 QUICK REFERENCE OF ALARMS AND FAULTS

Fault / Alarm	Description	Possible Causes
F001/A001: RS485 Communication Timeout	It indicates that the equipment stopped receiving valid telegrams for a period longer than the setting in P0623. The time counting starts after the first valid telegram is received.	■ Check network installation, broken cable or failed/poor contact on the connections with the network and grounding. ■ Ensure that the Modbus RTU client always sends telegrams to the equipment in a shorter time than the set in P0623. ■ Disable the timeout function in P0623 = 0.0s.

9 QUICK REFERENCES

Table 9.1: *Parameters quick reference*

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Product - Status							
Product - Status - Firmware Version/Revision/Model							
P0401	Product Model	0 = PLC200 1 = PLC201 2 = RUW200 3 = RUW201 4 = Versión inválida	-	ro, enum	0	401	1
P0402	Models (Slots) - 1 ... 8	5 = MOD3.00 - 8 AOVI 6 = MOD3.10 - 8 AOV 7 = MOD7.00 - 6RE 16 = MOD1.00 - 24DI 17 = MOD1.10 - 24DO 18 = MOD1.30 - 08DO/16DI 19 = MOD1.20 - 16DO/08DI 128 = MOD2.00 - 7 AI 129 = MOD4.00 - 7 TH 130 = MOD5.00 - 4 RTD 131 = MOD6.00 - 2 SG 239 = MOD8.00 - SCW 255 = Not Connected	-	ro, enum	0	402	1
P0500	Firmware Version of the Product.	0.0 to 99.9999	-	ro, 32bit	4	500	2
P0502	Firmware Version (Slots) - 1 ... 8	0.0 to 19.99	-	ro, 16bit	2	502	1
P0540	Bootloader Version	20.0 to 60.0	-	ro, 32bit	4	540	2
P0560	Product Serial Number	0 to 4294967295	-	ro, 32bit	0	560	2
P0400	Number of Slots	0 to 255	-	ro, 8bit	0	400	1
Product - Status - Communication							
Product - Status - Communication - Serial RS485							
P0095	Modbus RTU Program Status	0 = Modbus RTU Client Enabled	-	ro, enum	0	95	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Modbus RTU Client Disabled					
P0625	RS485 - Interface Status	0 = Inactive 1 = Active 2 = Timeout Error	-	ro, enum	0	625	1
P0626	RS485 - Received Telegrams	0 to 65535	-	ro, 16bit	0	626	1
P0627	RS485 - Transmitted Telegrams	0 to 65535	-	ro, 16bit	0	627	1
P0628	RS485 - Telegrams with Error	0 to 65535	-	ro, 16bit	0	628	1
P0629	RS485 - Reception Errors	0 to 65535	-	ro, 16bit	0	629	1
Product - Status - Communication - Ethernet							
P0846	ETH - Actual IP Address	0:0:0:0 to 255:255:255:255	0:0:0:0	ro, ip addr	0	846	2
P0889	ETH - Interface Status	Bit 0 = Link 1 Bit 1 = Link 2	- Bit 2 ... 7 = Reserved	ro, 16bit	0	889 tente8	1
P0891	ETH - MAC Address	00:00:00:00:00:00 to FF:FF:FF:FF:FF:FF	-	ro, mac addr	0	891	3
Product - Status - Communication - EtherNet/IP							
P0869	EIP - Scanner Status	0 = Run 1 = Idle	-	ro, enum	0	869	1
P0870	EIP - Communication Status	0 = Inactive 1 = No connection 2 = Connected 3 = Timeout in I/O connection 4 = Duplicate IP	-	ro, enum	0	870	1
Product - Status - Communication - Modbus TCP							
P0097	Modbus TCP Program Status	0 = Modbus TCP Client Enabled 1 = Modbus TCP Client Disabled	-	ro, enum	0	97	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P0860	MBTCP - Communication Status	0 = Inactive 1 = No connection 2 = Connected 3 = Timeout Error	-	ro, enum	0	860	1
P0861	MBTCP - Received Telegrams	0 to 65535	-	ro, 16bit	0	861	1
P0862	MBTCP - Transmitted Telegrams	0 to 65535	-	ro, 16bit	0	862	1
P0863	MBTCP - Active Connections	0 to 4	-	ro, 8bit	0	863	1
P0841	MQTT - Status	0 = Inactive 1 = No Connection 2 = Connected (Pub)	-	ro, enum	0	841	1
P0842	Last Public. MQTT	0 to 65535	-	ro, 16bit	0	842	1
Product - Status - Communication - SNTP							
P0778	SNTP - Status	0 = Inactive 1 = No Connection 2 = Connected	-	ro, enum	0	778	1
P0780	SNTP - Last Update	0 to 4294967295	-	ro, date and time epoch	0	780	2
Product - Status - Inputs							
P0900	Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08	-	ro, 32bit	0	900	2
P0950	Counter Value - 1 ... 4	-2147483648 to 2147483647	-	ro, s32bit	0	950	2
P0970	Counter Direction - 1 ... 4		-	ro, enum	0	970	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = Count up 1 = Countdown					
Product - Status - Errors and Faults							
P0100	Last 5 faults - 1 ... 5	0 = NO ERROR 1 = RS485 TIMEOUT 2 ... 3 = RESERVED 4 = CAN BUS OFF 5 = RESERVED 6 = CAN INITIALIZATION ERROR 7 = CAN ENABLE ERROR 8 = CANOPEN NODE GUARD ERROR 9 = CANOPEN HEARTBEAT ERROR 10 = HW WATCHDOG 11 ... 13 = INTERNAL ERROR 14 = RETENTIVE MEMORY 15 = FLASH MEMORY 50% 16 = FLASH MEMORY 100% 17 = NUMBER OF ACCESSORIES EXCEEDED 18 = INTRABUS ADDRESSING ERROR 19 = INTRABUS IDENTIFICATION ERROR 20 = INTERNAL ERROR 21 = SLOT 1 IDENTIFICATION ERROR 22 = SLOT 2 IDENTIFICATION ERROR 23 = SLOT 3 IDENTIFICATION ERROR 24 = SLOT 4 IDENTIFICATION ERROR 25 = SLOT 5 IDENTIFICATION ERROR 26 = SLOT 6 IDENTIFICATION ERROR 27 = SLOT 7 IDENTIFICATION ERROR	-	ro, enum	0	100	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		28 = SLOT 8 IDENTIFICATION ERROR 29 ... 30 = INTERNAL ERROR 31 = SLOT 1 INTRABUS TIMEOUT 32 = SLOT 2 INTRABUS TIMEOUT 33 = SLOT 3 INTRABUS TIMEOUT 34 = SLOT 4 INTRABUS TIMEOUT 35 = SLOT 5 INTRABUS TIMEOUT 36 = SLOT 6 INTRABUS TIMEOUT 37 = SLOT 7 INTRABUS TIMEOUT 38 = SLOT 8 INTRABUS TIMEOUT 39 ... 40 = INTERNAL ERROR 41 = SLOT 1 INTRABUS CRC ERROR 42 = SLOT 2 INTRABUS CRC ERROR 43 = SLOT 3 INTRABUS CRC ERROR 44 = SLOT 4 INTRABUS CRC ERROR 45 = SLOT 5 INTRABUS CRC ERROR 46 = SLOT 6 INTRABUS CRC ERROR 47 = SLOT 7 INTRABUS CRC ERROR 48 = SLOT 8 INTRABUS CRC ERROR 49 ... 50 = INTERNAL ERROR 51 = SLOT 1 INTRABUS COMMAND ERROR 52 = SLOT 2 INTRABUS COMMAND ERROR 53 = SLOT 3 INTRABUS COMMAND ERROR					

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		54 = SLOT 4 INTRABUS COMMAND ERROR 55 = SLOT 5 INTRABUS COMMAND ERROR 56 = SLOT 6 INTRABUS COMMAND ERROR 57 = SLOT 7 INTRABUS COMMAND ERROR 58 = SLOT 8 INTRABUS COMMAND ERROR 59 ... 70 = INTERNAL ERROR 71 = EXTERNAL FLASH 72 = TIMEOUT MBTCP 73 = TIMEOUT SNTP 74 = LOW BATTERY 75 = SCANNER IN IDLE 76 = ETHERNET IP OFFLINE 77 = PROGRAM WATCHDOG					
P0105	Last 5 Alarms - 1 ... 5	0 = NO ERROR 1 = RS485 TIMEOUT 2 ... 3 = RESERVED 4 = CAN BUS OFF 5 = RESERVED 6 = CAN INITIALIZATION ERROR 7 = CAN ENABLE ERROR 8 = CANOPEN NODE GUARD ERROR 9 = CANOPEN HEARTBEAT ERROR 10 = HW WATCHDOG 11 ... 13 = INTERNAL ERROR 14 = RETENTIVE MEMORY 15 = FLASH MEMORY 50% 16 = FLASH MEMORY 100% 17 = NUMBER OF ACCESSORIES EXCEEDED 18 = INTRABUS ADDRESSING ERROR 19 = INTRABUS IDENTIFICATION ERROR 20 = INTERNAL ERROR	-	ro, enum	0	105	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		21 = SLOT 1 IDENTIFICATION ERROR 22 = SLOT 2 IDENTIFICATION ERROR 23 = SLOT 3 IDENTIFICATION ERROR 24 = SLOT 4 IDENTIFICATION ERROR 25 = SLOT 5 IDENTIFICATION ERROR 26 = SLOT 6 IDENTIFICATION ERROR 27 = SLOT 7 IDENTIFICATION ERROR 28 = SLOT 8 IDENTIFICATION ERROR 29 ... 30 = INTERNAL ERROR 31 = SLOT 1 INTRABUS TIMEOUT 32 = SLOT 2 INTRABUS TIMEOUT 33 = SLOT 3 INTRABUS TIMEOUT 34 = SLOT 4 INTRABUS TIMEOUT 35 = SLOT 5 INTRABUS TIMEOUT 36 = SLOT 6 INTRABUS TIMEOUT 37 = SLOT 7 INTRABUS TIMEOUT 38 = SLOT 8 INTRABUS TIMEOUT 39 ... 40 = INTERNAL ERROR 41 = SLOT 1 INTRABUS CRC ERROR 42 = SLOT 2 INTRABUS CRC ERROR 43 = SLOT 3 INTRABUS CRC ERROR 44 = SLOT 4 INTRABUS CRC ERROR 45 = SLOT 5 INTRABUS CRC ERROR					

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		46 = SLOT 6 INTRABUS CRC ERROR 47 = SLOT 7 INTRABUS CRC ERROR 48 = SLOT 8 INTRABUS CRC ERROR 49 ... 50 = INTERNAL ERROR 51 = SLOT 1 INTRABUS COMMAND ERROR 52 = SLOT 2 INTRABUS COMMAND ERROR 53 = SLOT 3 INTRABUS COMMAND ERROR 54 = SLOT 4 INTRABUS COMMAND ERROR 55 = SLOT 5 INTRABUS COMMAND ERROR 56 = SLOT 6 INTRABUS COMMAND ERROR 57 = SLOT 7 INTRABUS COMMAND ERROR 58 = SLOT 8 INTRABUS COMMAND ERROR 59 ... 70 = INTERNAL ERROR 71 = EXTERNAL FLASH 72 = TIMEOUT MBTCP 73 = TIMEOUT SNTP 74 = LOW BATTERY 75 = SCANNER IN IDLE 76 = ETHERNET IP OFFLINE 77 = PROGRAM WATCHDOG					
Product - Status - Program							
P0099	Program Status	0 = Stopped 1 = Running 2 = No program 3 = Invalid 4 = Installing	-	ro, enum	0	99	1
Product - Status - Program - Counter/Scan Cycle							
P0700	Counter 100us	0 to 4294967295	-	ro, 32bit	0	700	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P0702	Scan Cycle	0.0 to 6553.5 ms	-	ro, 16bit	1	702	1
P0703	Minimum Scan Cycle	0.0 to 6553.5 ms	-	ro, 16bit	1	703	1
P0704	Maximum Scan Cycle	0.0 to 6553.5 ms	-	ro, 16bit	1	704	1
Product - Status - Watchdog							
P0050	System watchdog: Code	0 to 65535	-	ro, 32bit	0	50	2
P0052	Watchdog - Data - 1 ... 17	0 to 4294967295	-	ro, 32bit	0	52	2
P0086	Watchdog - Date/Time	0 to 4294967295	-	ro, date and time epoch	0	86	2
Product - Status - Date and time							
P0192	Date/Hour	0 to 4294967295	-	ro, date and time epoch	0	192	2
Product - Configuration							
Product - Configuration - Communication							
Product - Configuration - Communication - Communication Errors							
P0624	Action for Communication Error	0 = Alarm 1 = Fault	1	rw, enum	0	624	1
Product - Configuration - Communication - I/O Data							
P0873	Readings Quantity	1 to 50	2	rw, 8bit	0	873	1
P15000	Read Word - 1 ... 50	0 to 65535	0	rw, 16bit	0	15000	1
P0875	Writings Quantity	1 to 50	2	rw, 8bit	0	875	1
P15250	Write Word - 1 ... 50	0 to 65535	0	rw, 16bit	0	15250	1
Product - Configuration - Communication - Serial RS485							
P0094	Modbus RTU Program Command	0 = Enable Modbus RTU Client 1 = Disable Modbus RTU Client	0	rw, enum	0	94	1
P0617	RS485 - Gateway Modbus TCP/RTU Timeout	1 to 65535	200	rw, 16bit	0	617	1
P0618	RS485 - Termination resistor	0 = Not connected	0	rw, enum	0	618	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Connected					
P0619	RS485 - Protocol	0 = Not used 1 = Modbus RTU Client 2 = Modbus RTU	2	rw, enum	0	619	1
P0620	RS485 - Address	1 to 247	1	rw, 8bit	0	620	1
P0621	RS485 - Baud Rate	0 = 9600 bit/s 1 = 19200 bit/s 2 = 38400 bit/s 3 = 57600 bit/s 4 = 76800 bit/s 5 = 115200 bit/s 6 = 230400 bit/s 7 = 256000 bit/s	1	rw, enum	0	621	1
P0622	RS485 - Bytes configuration	0 = 8-bits, no, 1 1 = 8-bits, even, 1 2 = 8-bits, odd, 1 3 = 8-bits, no, 2 4 = 8-bits, even, 2 5 = 8-bits, odd, 2	1	rw, enum	0	622	1
P0623	RS485 - Timeout	0.0 to 999.0 s	0.0 s	rw, 16bit	1	623	1
Product - Configuration - Communication - Ethernet							
P0798	ETH - Enable protocols	Bit 0 = Web Server	0	rw, 16bit	0	798	1
P0850	ETH - IP Address Settings	0 = Static IP 1 = DHCP	0	rw, enum	0	850	1
P0852	ETH - IP Address	0:0:0:0 to 255:255:255:255	192:168:1:10	rw, ip addr	0	852	2
P0855	ETH - Network Mask	0 = Not used 1 = 128.0.0.0	24	rw, enum	0	855	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		2 = 192.0.0.0 3 = 224.0.0.0 4 = 240.0.0.0 5 = 248.0.0.0 6 = 252.0.0.0 7 = 254.0.0.0 8 = 255.0.0.0 9 = 255.128.0.0 10 = 255.192.0.0 11 = 255.224.0.0 12 = 255.240.0.0 13 = 255.248.0.0 14 = 255.252.0.0 15 = 255.254.0.0 16 = 255.255.0.0 17 = 255.255.128.0 18 = 255.255.192.0 19 = 255.255.224.0 20 = 255.255.240.0 21 = 255.255.248.0 22 = 255.255.252.0 23 = 255.255.254.0 24 = 255.255.255.0 25 = 255.255.255.128 26 = 255.255.255.192 27 = 255.255.255.224 28 = 255.255.255.240 29 = 255.255.255.248 30 = 255.255.255.252 31 = 255.255.255.254					
P0856	ETH - Gateway	0:0:0:0 to 255:255:255:255	0:0:0:0	rw, ip addr	0	856	2
P0890	ETH - Interface Control	Bit 0 = Auto Negotiate Link Bit 1 = Speed Link Bit 2 = Forced Duplex Link	9	rw, 16bit	0	890	1
Product - Configuration - Communication - EtherNet/IP							
P0871	EIP - I/O instances	0 ... 9 = Not used	10	rw, enum	0	871	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		10 = 102/152 Config I/O data					
Product - Configuration - Communication - Modbus TCP							
P0096	Modbus TCP Program Command	0 = Enable Modbus TCP Client 1 = Disabls Modbus TCP Client	0	rw, enum	0	96	1
P0864	MBTCP - Connection Timeout	0 to 65535 s	65 s	rw, 16bit	0	864	1
P0865	MBTCP - TCP Port	0 to 65535	502	rw, 16bit	0	865	1
P0868	MBTCP - Timeout	0.0 to 999.0 s	0.0 s	rw, 16bit	1	868	1
Product - Configuration - Communication - MQTT							
P0844	MQTT - Enable/Disable	0 = Disable 1 = Enable 2 = Enable only publish	1	rw, enum	0	844	1
Product - Configuration - Communication - SNTP							
P0770	SNTP - Server 1	0:0:0:0 to 255:255:255:255	0:0:0:0	rw, ip addr	0	770	2
P0774	SNTP - Server 2	0:0:0:0 to 255:255:255:255	0:0:0:0	rw, ip addr	0	774	2
P0779	SNTP - Update Interval	0 to 65535	0	rw, 16bit	0	779	1
P0624	Action for Communication Error	0 = Alarm 1 = Fault	1	rw, enum	0	624	1
Product - Configuration - Inputs / Outputs							
P0902	Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04	0	rw, 32bit	0	902	2
P0904	Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	904	2
P0906	Digital Outputs Error Value	0 to 4294967295	0	rw, 32bit	0	906	2
P0908	Update I/Os in stop		0	rw, 16bit	0	908	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 0 = Select					
P0909	Output behavior in stop	0 = Force outputs to the default value 1 = Keep the actual values	0	rw, enum	0	909	1
P0918	Enable step-motor control	Bit 0 = Step-motor 1 Bit 1 = Step-motor 2	0	rw, 16bit	0	918	1
P0919	Step-motor - Reverses direction	Bit 0 = Step-motor 1 Bit 1 = Step-motor 2	0	rw, 16bit	0	919	1
P0940	Counter 1 / DI1 - DI2	0 = Digital Inputs 1 = Quadrature 2 = Pulse and Direction 3 = Counter and digital input	0	rw, enum	0	940	1
P0941	Counter 2 / DI3 - DI4	0 = Digital Inputs 1 = Quadrature 2 = Pulse and Direction 3 = Counter and digital input	0	rw, enum	0	941	1
P0942	Counter 3 / DI5 - DI6	0 = Digital Inputs 1 = Quadrature 2 = Pulse and Direction 3 = Counter and digital input	0	rw, enum	0	942	1
P0943	Counter 4 / DI7 - DI8	0 = Digital Inputs 1 = Quadrature 2 = Pulse and Direction 3 = Counter and digital input	0	rw, enum	0	943	1
P0948	Counter - Reverse direction	Bit 0 = Counter 1 Bit 1 = Counter 2	0	rw, 16bit	0	948	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 2 = Counter 3 Bit 3 = Counter 4					
P0979	Resets Counter	 Bit 0 = Counter 1 Bit 1 = Counter 2 Bit 2 = Counter 3 Bit 3 = Counter 4	0	rw, 16bit	0	979	1
Product - Configuration - Flash							
P0204	Load parameters	 0 = External Flash Memory 1 = Save Parameters to Flash 2 = It loads Parameters from Flash 3 = Restart product 4 = It loads Factory Settings 5 = It Resets the Expansions	0	rw, enum	0	204	1
Product - Configuration - Clear Errors							
P0200	Clear Errors	0 to 255	0	rw, 8bit	0	200	1
Product - Configuration - Date and time							
P0194	Set Date/Time	0 to 4294967295	1704070861	rw, date and time epoch	0	194	2
P0196	Time Zone	 0 = UTC-12:00 1 = UTC-11:30 2 = UTC-11:00 3 = UTC-10:30 4 = UTC-10:00 5 = UTC-09:30 6 = UTC-09:00 7 = UTC-08:30 8 = UTC-08:00 9 = UTC-07:30 10 = UTC-07:00 11 = UTC-06:30 12 = UTC-06:00 13 = UTC-05:30 14 = UTC-05:00 15 = UTC-04:30	24	rw, enum	0	196	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		16 = UTC-04:00 17 = UTC-03:30 18 = UTC-03:00 19 = UTC-02:30 20 = UTC-02:00 21 = UTC-01:30 22 = UTC-01:00 23 = UTC-00:30 24 = UTC+00:00 25 = UTC+00:30 26 = UTC+01:00 27 = UTC+01:30 28 = UTC+02:00 29 = UTC+02:30 30 = UTC+03:00 31 = UTC+03:30 32 = UTC+04:00 33 = UTC+04:30 34 = UTC+05:00 35 = UTC+05:30 36 = UTC+06:00 37 = UTC+06:30 38 = UTC+07:00 39 = UTC+07:30 40 = UTC+08:00 41 = UTC+08:30 42 = UTC+09:00 43 = UTC+09:30 44 = UTC+10:00 45 = UTC+10:30 46 = UTC+11:00 47 = UTC+11:30 48 = UTC+12:00 49 = UTC+12:30 50 = UTC+13:00 51 = UTC+13:30 52 = UTC+14:00					
P0190	Disable RTC	Bit 0 = Select	0	rw, 16bit	0	190	1
Product - User							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P0800	User Parameter - 1 ... 20	-2147483648 to 2147483647	0	rw, s32bit	0	800	2
Slot 1 - Digital Input/Output							
Slot 1 - Digital Input/Output - Digital Outputs (DOs)							
P1102	Slot 1 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24	0	rw, 32bit	0	1102	2
Slot 1 - Digital Input/Output - Digital Inputs (DIs)							
P1100	Slot 1 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08	-	ro, 32bit	0	1100	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
Slot 1 - Digital Input/Output - Configuration							
P1104	Slot 1 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1104	2
P1106	Slot 1 - Error Value	0 to 4294967295	0	rw, 32bit	0	1106	2
Slot 1 - Analog Input (AI, TH, RTD)							
Slot 1 - Analog Input (AI, TH, RTD) - Configuration							
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3135	Slot 1 - Active Analog Input Channel - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv	1	rw, enum	0	3135	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3142	Slot 1 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3142	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P3149	Slot 1 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3149	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3156	Slot 1 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3156	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3163	Slot 1 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3163	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3170	Slot 1 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3170	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3178	Slot 1 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3178	1
Slot 1 - Analog Input (AI, TH, RTD) - Status							
Slot 1 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3100	Slot 1 - 16-bit processed analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3100	1
Slot 1 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3107	Slot 1 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3107	1
Slot 1 - Analog Output							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 1 - Analog Output - Configuration							
Slot 1 - Analog Output - Configuration - Error Mode							
P5108	Slot 1 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5108	1
Slot 1 - Analog Output - Configuration - Error Value							
P5116	Slot 1 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5116	1
Slot 1 - Analog Output - Configuration - Channel Gain							
P5132	Slot 1 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5132	1
Slot 1 - Analog Output - Configuration - Channel Offset							
P5140	Slot 1 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5140	1
Slot 1 - Analog Output - 16-Bit Analog Output Value							
P5100	Slot 1 - 16-Bit Analog Output - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5100	1
Slot 1 - Analog input (SG)							
Slot 1 - Analog input (SG) - Configuration							
Slot 1 - Analog input (SG) - Configuration - Channel Enable							
P7118	Slot 1 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7118	1
Slot 1 - Analog input (SG) - Configuration - Channel Unit							
P7120	Slot 1 - Analog Channel Unit - 1 ... 2	0 = g 1 = kg 2 = t	0	rw, enum	0	7120	1
Slot 1 - Analog input (SG) - Configuration - Channel filter							
P7122	Slot 1 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7122	1
Slot 1 - Analog input (SG) - Configuration - Channel Gain							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P7124	Slot 1 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7124	1
Slot 1 - Analog input (SG) - Configuration - Channel Offset							
P7126	Slot 1 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7126	2
Slot 1 - Analog input (SG) - Configuration - Channel Full Scale							
P7130	Slot 1 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7130	1
Slot 1 - Analog input (SG) - Configuration - Channel Sensitivity							
P7132	Slot 1 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7132	1
Slot 1 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7134	Slot 1 - Analog Channel Sampling Rate - 1 ... 2	0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)	4	rw, enum	0	7134	1
Slot 1 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7136	Slot 1 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7136	2
Slot 1 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7140	Slot 1 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7140	1
Slot 1 - Analog input (SG) - Configuration - Filter Time Constant							
P7142	Slot 1 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7142	1
Slot 1 - Analog input (SG) - Configuration - Channel Variation Step							
P7144	Slot 1 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7144	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 1 - Analog input (SG) - Status							
Slot 1 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bits							
P7100	Slot 1 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7100	1
Slot 1 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bits							
P7102	Slot 1 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7102	2
Slot 1 - Analog input (SG) - Status - SG Analog Channel Status							
P7106	Slot 1 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7106	1
Slot 1 - Starter manager (SCW)							
Slot 1 - Starter manager (SCW) - Status							
Slot 1 - Starter manager (SCW) - Status - Product Information							
P1100	Slot 1 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23	-	ro, 32bit	0	1100	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 23 = DI24					
P9102	Slot1 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9102	1
Slot 1 - Starter manager (SCW) - Status - Starters							
P9110	Slot1 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9110	1
P9111	Slot1 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9111	1
P9112	Slot1 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9112	1
P9113	Slot1 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9113	1
P9114	Slot1 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9114	1
P9115	Slot1 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9115	1
P9116	Slot1 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9116	1
P9117	Slot1 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9117	1
P9118	Slot1 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9118	1
P9119	Slot1 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9119	1
P9120	Slot1 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9120	1
P9121	Slot1 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9121	1
P9122	Slot1 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9122	1
P9123	Slot1 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9123	1
P9124	Slot1 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9124	1
P9125	Slot1 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9125	1
P9130	Slot1 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9130	2
P9132	Slot1 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9132	2
P9134	Slot1 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9134	2
P9136	Slot1 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9136	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9138	Slot1 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9138	2
P9140	Slot1 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9140	2
P9142	Slot1 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9142	2
P9144	Slot1 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9144	2
P9160	Slot1 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9160	1
P9161	Slot1 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9161	1
P9162	Slot1 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9162	1
P9163	Slot1 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9163	1
P9164	Slot1 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9164	1
P9165	Slot1 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9165	1
P9166	Slot1 - P4 Status - Starter		-	ro, enum	0	9166	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil					
P9167	Slot1 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9167	1
Slot 1 - Starter manager (SCW) - Status - Errors and Alarms							
P9170	Slot1 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9170	1
P9171	Slot1 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9171	1
P9172	Slot1 - P3 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9172	1
P9173	Slot1 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode	-	ro, enum	0	9173	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		5 = Wrong Contactor					
P9175	Slot1 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9175	1
P9176	Slot1 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9176	1
P9177	Slot1 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9177	1
P9178	Slot1 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9178	1
Slot 1 - Starter manager (SCW) - Configurations							
Slot 1 - Starter manager (SCW) - Configurations - Starters							
P9180	Slot1 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9180	1
P9181	Slot1 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9181	1
P9182	Slot1 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9182	1
P9183	Slot1 - P4 - Operation Mode	0 = Starter	0	rw, 8bit	0	9183	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Transparent					
P9185	Slot1 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9185	1
P9186	Slot1 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9186	1
P9187	Slot1 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9187	1
P9188	Slot1 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9188	1
P9103	Slot1 - Factory Reset	0 to 65535	0	rw, 16bit	0	9103	1
Slot 1 - Starter manager (SCW) - Configurations - Counters							
P9150	Slot1 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9150	1
P9151	Slot1 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9151	1
P9152	Slot1 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9152	1
P9153	Slot1 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9153	1
P9154	Slot1 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9154	1
P9155	Slot1 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9155	1
P9156	Slot1 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9156	1
P9157	Slot1 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9157	1
P9158	Slot1 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9158	1
Slot 1 - Starter manager (SCW) - Configurations - Commands							
P9190	Slot1 - Direct Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9190	1
P9191	Slot1 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9191	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9192	Slot1 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9192	1
P1102	Slot 1 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24	0	rw, 32bit	0	1102	2
Slot 2 - Digital Input/Output							
Slot 2 - Digital Input/Output - Digital Outputs (DOs)							
P1202	Slot 2 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05	0	rw, 32bit	0	1202	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 2 - Digital Input/Output - Digital Inputs (DIs)							
P1200	Slot 2 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19	-	ro, 32bit	0	1200	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
Slot 2 - Digital Input/Output - Configuration							
P1204	Slot 2 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1204	2
P1206	Slot 2 - Error Value	0 to 4294967295	0	rw, 32bit	0	1206	2
Slot 2 - Analog Input (AI, TH, RTD)							
Slot 2 - Analog Input (AI, TH, RTD) - Configuration							
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3235	Slot 2 - Active Analog Input Channel - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv	1	rw, enum	0	3235	1
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3242	Slot 2 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3242	1
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							
P3249	Slot 2 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3249	1
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3256	Slot 2 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3256	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3263	Slot 2 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3263	1
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3270	Slot 2 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3270	1
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3278	Slot 2 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3278	1
Slot 2 - Analog Input (AI, TH, RTD) - Status							
Slot 2 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3200	Slot 2 - 16-bit analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3200	1
Slot 2 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3207	Slot 2 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3207	1
Slot 2 - Analog Output							
Slot 2 - Analog Output - Configuration							
Slot 2 - Analog Output - Configuration - Error Mode							
P5208	Slot 2 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5208	1
Slot 2 - Analog Output - Configuration - Error Value							
P5216	Slot 2 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5216	1
Slot 2 - Analog Output - Configuration - Channel Gain							
P5232	Slot 2 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5232	1
Slot 2 - Analog Output - Configuration - Channel Offset							
P5240	Slot 2 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5240	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 2 - Analog Output - 16-Bit Analog Output Value							
P5200	Slot 2 - 16-Bit Analog Output - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5200	1
Slot 2 - Analog input (SG)							
Slot 2 - Analog input (SG) - Configuration							
Slot 2 - Analog input (SG) - Configuration - Channel Enable							
P7218	Slot 2 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7218	1
Slot 2 - Analog input (SG) - Configuration - Channel Unit							
P7220	Slot 2 - Analog Channel Unit - 1 ... 2	0 = g 1 = kg 2 = t	0	rw, enum	0	7220	1
Slot 2 - Analog input (SG) - Configuration - Channel filter							
P7222	Slot 2 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7222	1
Slot 2 - Analog input (SG) - Configuration - Channel Gain							
P7224	Slot 2 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7224	1
Slot 2 - Analog input (SG) - Configuration - Channel Offset							
P7226	Slot 2 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7226	2
Slot 2 - Analog input (SG) - Configuration - Channel Full Scale							
P7230	Slot 2 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7230	1
Slot 2 - Analog input (SG) - Configuration - Channel Sensitivity							
P7232	Slot 2 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7232	1
Slot 2 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7234	Slot 2 - Analog Channel Sampling Rate - 1 ... 2		4	rw, enum	0	7234	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)					
Slot 2 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7236	Slot 2 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7236	2
Slot 2 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7240	Slot 2 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7240	1
Slot 2 - Analog input (SG) - Configuration - Filter Time Constant							
P7242	Slot 2 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7242	1
Slot 2 - Analog input (SG) - Configuration - Channel Variation Step							
P7244	Slot 2 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7244	1
Slot 2 - Analog input (SG) - Status							
Slot 2 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bit							
P7200	Slot 2 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7200	1
Slot 2 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bit							
P7202	Slot 2 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7202	2
Slot 2 - Analog input (SG) - Status - SG Analog Channel Status							
P7206	Slot 2 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7206	1
Slot 2 - Starter manager (SCW)							
Slot 2 - Starter manager (SCW) - Status							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 2 - Starter manager (SCW) - Status - Product Information							
P1200	Slot 2 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24	-	ro, 32bit	0	1200	2
P9202	Slot2 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9202	1
Slot 2 - Starter manager (SCW) - Status - Starters							
P9210	Slot2 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9210	1
P9211	Slot2 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9211	1
P9212	Slot2 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9212	1
P9213	Slot2 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9213	1
P9214	Slot2 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9214	1
P9215	Slot2 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9215	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9216	Slot2 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9216	1
P9217	Slot2 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9217	1
P9218	Slot2 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9218	1
P9219	Slot2 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9219	1
P9220	Slot2 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9220	1
P9221	Slot2 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9221	1
P9222	Slot2 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9222	1
P9223	Slot2 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9223	1
P9224	Slot2 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9224	1
P9225	Slot2 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9225	1
P9230	Slot2 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9230	2
P9232	Slot2 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9232	2
P9234	Slot2 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9234	2
P9236	Slot2 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9236	2
P9238	Slot2 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9238	2
P9240	Slot2 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9240	2
P9242	Slot2 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9242	2
P9244	Slot2 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9244	2
P9260	Slot2 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9260	1
P9261	Slot2 - P1 Status - Direction and Errors		-	ro, 16bit	0	9261	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm					
P9262	Slot2 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9262	1
P9263	Slot2 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9263	1
P9264	Slot2 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9264	1
P9265	Slot2 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9265	1
P9266	Slot2 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9266	1
P9267	Slot2 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9267	1
Slot 2 - Starter manager (SCW) - Status - Errors and Alarms							
P9270	Slot2 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil	-	ro, enum	0	9270	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor					
P9271	Slot2 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9271	1
P9272	Slot2 - P3 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9272	1
P9273	Slot2 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9273	1
P9275	Slot2 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9275	1
P9276	Slot2 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9276	1
P9277	Slot2 - P3 - Last Alarm	0 = No Alarm	-	ro, enum	0	9277	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature					
P9278	Slot2 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9278	1
Slot 2 - Starter manager (SCW) - Configurations							
Slot 2 - Starter manager (SCW) - Configurations - Starters							
P9280	Slot2 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9280	1
P9281	Slot2 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9281	1
P9282	Slot2 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9282	1
P9283	Slot2 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9283	1
P9285	Slot2 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9285	1
P9286	Slot2 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9286	1
P9287	Slot2 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9287	1
P9288	Slot2 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9288	1
P9203	Slot2 - Factory Reset	0 to 65535	0	rw, 16bit	0	9203	1
Slot 2 - Starter manager (SCW) - Configurations - Counters							
P9250	Slot2 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9250	1
P9251	Slot2 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9251	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9252	Slot2 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9252	1
P9253	Slot2 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9253	1
P9254	Slot2 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9254	1
P9255	Slot2 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9255	1
P9256	Slot2 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9256	1
P9257	Slot2 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9257	1
P9258	Slot2 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9258	1
Slot 2 - Starter manager (SCW) - Configurations - Commands							
P9290	Slot2 - Forward Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9290	1
P9291	Slot2 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9291	1
P9292	Slot2 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9292	1
P1202	Slot 2 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08	0	rw, 32bit	0	1202	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 3 - Digital Input/Output							
Slot 3 - Digital Input/Output - Digital Outputs (DOs)							
P1302	Slot 3 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21	0	rw, 32bit	0	1302	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 3 - Digital Input/Output - Digital Inputs (DIs)							
P1300	Slot 3 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24	-	ro, 32bit	0	1300	2
Slot 3 - Digital Input/Output - Configuration							
P1304	Slot 3 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1304	2
P1306	Slot 3 - Error Value	0 to 4294967295	0	rw, 32bit	0	1306	2
Slot 3 - Analog Input (AI, TH, RTD)							
Slot 3 - Analog Input (AI, TH, RTD) - Configuration							
Slot 3 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3335	Slot 3 - Active Analog Input Channel - 1 ... 7		1	rw, enum	0	3335	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv					
Slot 3 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3342	Slot 3 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3342	1
Slot 3 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							
P3349	Slot 3 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3349	1
Slot 3 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3356	Slot 3 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3356	1
Slot 3 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3363	Slot 3 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3363	1
Slot 3 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3370	Slot 3 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3370	1
Slot 3 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3378	Slot 3 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3378	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 3 - Analog Input (AI, TH, RTD) - Status							
Slot 3 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3300	Slot 3 - 16-bit analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3300	1
Slot 3 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3307	Slot 3 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3307	1
Slot 3 - Analog Output							
Slot 3 - Analog Output - Configuration							
Slot 3 - Analog Output - Configuration - Error Mode							
P5308	Slot 3 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5308	1
Slot 3 - Analog Output - Configuration - Error Value							
P5316	Slot 3 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5316	1
Slot 3 - Analog Output - Configuration - Channel Gain							
P5332	Slot 3 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5332	1
Slot 3 - Analog Output - Configuration - Channel Offset							
P5340	Slot 3 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5340	1
Slot 3 - Analog Output - 16-Bit Analog Output Value							
P5300	Slot 3 - 16-Bit Analog Output - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5300	1
Slot 3 - Analog input (SG)							
Slot 3 - Analog input (SG) - Configuration							
Slot 3 - Analog input (SG) - Configuration - Channel Enable							
P7318	Slot 3 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7318	1
Slot 3 - Analog input (SG) - Configuration - Channel Unit							
P7320	Slot 3 - Analog Channel Unit - 1 ... 2	0 = g	0	rw, enum	0	7320	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = kg 2 = t					
Slot 3 - Analog input (SG) - Configuration - Channel filter							
P7322	Slot 3 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7322	1
Slot 3 - Analog input (SG) - Configuration - Channel Gain							
P7324	Slot 3 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7324	1
Slot 3 - Analog input (SG) - Configuration - Channel Offset							
P7326	Slot 3 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7326	2
Slot 3 - Analog input (SG) - Configuration - Channel Full Scale							
P7330	Slot 3 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7330	1
Slot 3 - Analog input (SG) - Configuration - Channel Sensitivity							
P7332	Slot 3 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7332	1
Slot 3 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7334	Slot 3 - Analog Channel Sampling Rate - 1 ... 2	0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)	4	rw, enum	0	7334	1
Slot 3 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7336	Slot 3 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7336	2
Slot 3 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7340	Slot 3 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7340	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 3 - Analog input (SG) - Configuration - Filter Time Constant							
P7342	Slot 3 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7342	1
Slot 3 - Analog input (SG) - Configuration - Channel Variation Step							
P7344	Slot 3 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7344	1
Slot 3 - Analog input (SG) - Status							
Slot 3 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bit							
P7300	Slot 3 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7300	1
Slot 3 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bit							
P7302	Slot 3 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7302	2
Slot 3 - Analog input (SG) - Status - SG Analog Channel Status							
P7306	Slot 3 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7306	1
Slot 3 - Starter manager (SCW)							
Slot 3 - Starter manager (SCW) - Status							
Slot 3 - Starter manager (SCW) - Status - Product Information							
P1300	Slot 3 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12	-	ro, 32bit	0	1300	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
P9302	Slot3 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9302	1
Slot 3 - Starter manager (SCW) - Status - Starters							
P9310	Slot3 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9310	1
P9311	Slot3 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9311	1
P9312	Slot3 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9312	1
P9313	Slot3 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9313	1
P9314	Slot3 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9314	1
P9315	Slot3 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9315	1
P9316	Slot3 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9316	1
P9317	Slot3 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9317	1
P9318	Slot3 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9318	1
P9319	Slot3 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9319	1
P9320	Slot3 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9320	1
P9321	Slot3 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9321	1
P9322	Slot3 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9322	1
P9323	Slot3 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9323	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9324	Slot3 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9324	1
P9325	Slot3 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9325	1
P9330	Slot3 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9330	2
P9332	Slot3 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9332	2
P9334	Slot3 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9334	2
P9336	Slot3 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9336	2
P9338	Slot3 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9338	2
P9340	Slot3 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9340	2
P9342	Slot3 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9342	2
P9344	Slot3 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9344	2
P9360	Slot3 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9360	1
P9361	Slot3 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9361	1
P9362	Slot3 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9362	1
P9363	Slot3 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9363	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9364	Slot3 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9364	1
P9365	Slot3 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9365	1
P9366	Slot3 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9366	1
P9367	Slot3 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9367	1
Slot 3 - Starter manager (SCW) - Status - Errors and Alarms							
P9370	Slot3 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9370	1
P9371	Slot3 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9371	1
P9372	Slot3 - P3 - Last Error	0 = No Error	-	ro, enum	0	9372	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor					
P9373	Slot3 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9373	1
P9375	Slot3 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9375	1
P9376	Slot3 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9376	1
P9377	Slot3 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9377	1
P9378	Slot3 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9378	1
Slot 3 - Starter manager (SCW) - Configurations							
Slot 3 - Starter manager (SCW) - Configurations - Starters							
P9380	Slot3 - P1 - Operation Mode		0	rw, 8bit	0	9380	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = Starter 1 = Transparent					
P9381	Slot3 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9381	1
P9382	Slot3 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9382	1
P9383	Slot3 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9383	1
P9385	Slot3 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9385	1
P9386	Slot3 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9386	1
P9387	Slot3 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9387	1
P9388	Slot3 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9388	1
P9303	Slot3 - Factory Reset	0 to 65535	0	rw, 16bit	0	9303	1
Slot 3 - Starter manager (SCW) - Configurations - Counters							
P9350	Slot3 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9350	1
P9351	Slot3 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9351	1
P9352	Slot3 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9352	1
P9353	Slot3 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9353	1
P9354	Slot3 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9354	1
P9355	Slot3 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9355	1
P9356	Slot3 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9356	1
P9357	Slot3 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9357	1
P9358	Slot3 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9358	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 3 - Starter manager (SCW) - Configurations - Commands							
P9390	Slot3 - Forward Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9390	1
P9391	Slot3 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9391	1
P9392	Slot3 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9392	1
P1302	Slot 3 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20	0	rw, 32bit	0	1302	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 4 - Digital Input/Output							
Slot 4 - Digital Input/Output - Digital Outputs (DOs)							
P1402	Slot 4 - Digital Outputs (DOs)	 Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24	0	rw, 32bit	0	1402	2
Slot 4 - Digital Input/Output - Digital Inputs (DIs)							
P1400	Slot 4 - Digital Inputs (DIs)	 Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06	-	ro, 32bit	0	1400	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
Slot 4 - Digital Input/Output - Configuration							
P1404	Slot 4 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1404	2
P1406	Slot 4 - Error Value	0 to 4294967295	0	rw, 32bit	0	1406	2
Slot 4 - Analog Input (AI, TH, RTD)							
Slot 4 - Analog Input (AI, TH, RTD) - Configuration							
Slot 4 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3435	Slot 4 - Active Analog Input Channel - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv	1	rw, enum	0	3435	1
Slot 4 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3442	Slot 4 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3442	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 4 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							
P3449	Slot 4 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3449	1
Slot 4 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3456	Slot 4 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3456	1
Slot 4 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3463	Slot 4 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3463	1
Slot 4 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3470	Slot 4 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3470	1
Slot 4 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3478	Slot 4 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3478	1
Slot 4 - Analog Input (AI, TH, RTD) - Status							
Slot 4 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3400	Slot 4 - 16-bit processed analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3400	1
Slot 4 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3407	Slot 4 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3407	1
Slot 4 - Analog Output							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 4 - Analog Output - Configuration							
Slot 4 - Analog Output - Configuration - Error Mode							
P5408	Slot 4 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5408	1
Slot 4 - Analog Output - Configuration - Error Value							
P5416	Slot 4 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5416	1
Slot 4 - Analog Output - Configuration - Channel Gain							
P5432	Slot 4 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5432	1
Slot 4 - Analog Output - Configuration - Channel Offset							
P5440	Slot 4 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5440	1
Slot 4 - Analog Output - 16-Bit Analog Output Value							
P5400	Slot 4 - 16-Bit Analog Output - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5400	1
Slot 4 - Analog input (SG)							
Slot 4 - Analog input (SG) - Configuration							
Slot 4 - Analog input (SG) - Configuration - Channel Enable							
P7418	Slot 4 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7418	1
Slot 4 - Analog input (SG) - Configuration - Channel Unit							
P7420	Slot 4 - Analog Channel Unit - 1 ... 2	0 = g 1 = kg 2 = t	0	rw, enum	0	7420	1
Slot 4 - Analog input (SG) - Configuration - Channel filter							
P7422	Slot 4 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7422	1
Slot 4 - Analog input (SG) - Configuration - Channel Gain							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P7424	Slot 4 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7424	1
Slot 4 - Analog input (SG) - Configuration - Channel Offset							
P7426	Slot 4 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7426	2
Slot 4 - Analog input (SG) - Configuration - Channel Full Scale							
P7430	Slot 4 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7430	1
Slot 4 - Analog input (SG) - Configuration - Channel Sensitivity							
P7432	Slot 4 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7432	1
Slot 4 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7434	Slot 4 - Analog Channel Sampling Rate - 1 ... 2	0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)	4	rw, enum	0	7434	1
Slot 4 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7436	Slot 4 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7436	2
Slot 4 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7440	Slot 4 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7440	1
Slot 4 - Analog input (SG) - Configuration - Filter Time Constant							
P7442	Slot 4 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7442	1
Slot 4 - Analog input (SG) - Configuration - Channel Variation Step							
P7444	Slot 4 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7444	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 4 - Analog input (SG) - Status							
Slot 4 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bit							
P7400	Slot 4 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7400	1
Slot 4 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bit							
P7402	Slot 4 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7402	2
Slot 4 - Analog input (SG) - Status - Analog SG Channel Status							
P7406	Slot 4 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7406	1
Slot 4 - Starter manager (SCW)							
Slot 4 - Starter manager (SCW) - Status							
Slot 4 - Starter manager (SCW) - Status - Product Information							
P1400	Slot 4 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23	-	ro, 32bit	0	1400	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 23 = DI24					
P9402	Slot4 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9402	1
Slot 4 - Starter manager (SCW) - Status - Starters							
P9410	Slot4 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9410	1
P9411	Slot4 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9411	1
P9412	Slot4 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9412	1
P9413	Slot4 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9413	1
P9414	Slot4 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9414	1
P9415	Slot4 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9415	1
P9416	Slot4 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9416	1
P9417	Slot4 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9417	1
P9418	Slot4 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9418	1
P9419	Slot4 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9419	1
P9420	Slot4 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9420	1
P9421	Slot4 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9421	1
P9422	Slot4 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9422	1
P9423	Slot4 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9423	1
P9424	Slot4 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9424	1
P9425	Slot4 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9425	1
P9430	Slot4 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9430	2
P9432	Slot4 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9432	2
P9434	Slot4 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9434	2
P9436	Slot4 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9436	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9438	Slot4 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9438	2
P9440	Slot4 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9440	2
P9442	Slot4 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9442	2
P9444	Slot4 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9444	2
P9460	Slot4 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9460	1
P9461	Slot4 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9461	1
P9462	Slot4 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9462	1
P9463	Slot4 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9463	1
P9464	Slot4 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9464	1
P9465	Slot4 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9465	1
P9466	Slot4 - P4 Status - Starter		-	ro, enum	0	9466	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil					
P9467	Slot4 - P4 Status - Direction and Errors	 Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9467	1
Slot 4 - Starter manager (SCW) - Status - Errors and Alarms							
P9470	Slot4 - P1 - Last Error	 0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9470	1
P9471	Slot4 - P2 - Last Error	 0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9471	1
P9472	Slot4 - P3 - Last Error	 0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9472	1
P9473	Slot4 - P4 - Last Error	 0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode	-	ro, enum	0	9473	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		5 = Wrong Contactor					
P9475	Slot4 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9475	1
P9476	Slot4 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9476	1
P9477	Slot4 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9477	1
P9478	Slot4 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9478	1
Slot 4 - Starter manager (SCW) - Configurations							
Slot 4 - Starter manager (SCW) - Configurations - Starters							
P9480	Slot4 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9480	1
P9481	Slot4 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9481	1
P9482	Slot4 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9482	1
P9483	Slot4 - P4 - Operation Mode	0 = Starter	0	rw, 8bit	0	9483	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Transparent					
P9485	Slot4 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9485	1
P9486	Slot4 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9486	1
P9487	Slot4 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9487	1
P9488	Slot4 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9488	1
P9403	Slot4 - Factory Reset	0 to 65535	0	rw, 16bit	0	9403	1
Slot 4 - Starter manager (SCW) - Configurations - Counters							
P9450	Slot4 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9450	1
P9451	Slot4 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9451	1
P9452	Slot4 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9452	1
P9453	Slot4 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9453	1
P9454	Slot4 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9454	1
P9455	Slot4 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9455	1
P9456	Slot4 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9456	1
P9457	Slot4 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9457	1
P9458	Slot4 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9458	1
Slot 4 - Starter manager (SCW) - Configurations - Commands							
P9490	Slot4 - Forward Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9490	1
P9491	Slot4 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9491	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9492	Slot4 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9492	1
P1402	Slot 4 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24	0	rw, 32bit	0	1402	2
Slot 5 - Digital Input/Output							
Slot 5 - Digital Input/Output - Digital Outputs (DOs)							
P1502	Slot 5 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05	0	rw, 32bit	0	1502	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 5 - Digital Input/Output - Digital Inputs (DIs)							
P1500	Slot 5 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19	-	ro, 32bit	0	1500	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
Slot 5 - Digital Input/Output - Configuration							
P1504	Slot 5 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1504	2
P1506	Slot 5 - Error Value	0 to 4294967295	0	rw, 32bit	0	1506	2
Slot 5 - Analog Input (AI, TH, RTD)							
Slot 5 - Analog Input (AI, TH, RTD) - Configuration							
Slot 5 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3535	Slot 5 - Active Analog Input Channel - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv	1	rw, enum	0	3535	1
Slot 5 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3542	Slot 5 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3542	1
Slot 5 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							
P3549	Slot 5 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3549	1
Slot 5 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3556	Slot 5 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3556	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 5 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3563	Slot 5 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3563	1
Slot 5 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3570	Slot 5 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3570	1
Slot 5 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3578	Slot 5 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3578	1
Slot 5 - Analog Input (AI, TH, RTD) - Status							
Slot 5 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3500	Slot 5 - 16-bit processed analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3500	1
Slot 5 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3507	Slot 5 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3507	1
Slot 5 - Analog Output							
Slot 5 - Analog Output - Configuration							
Slot 5 - Analog Output - Configuration - Error Mode							
P5508	Slot 5 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5508	1
Slot 5 - Analog Output - Configuration - Error Value							
P5516	Slot 5 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5516	1
Slot 5 - Analog Output - Configuration - Channel Gain							
P5532	Slot 5 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5532	1
Slot 5 - Analog Output - Configuration - Channel Offset							
P5540	Slot 5 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5540	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 5 - Analog Output - 16-Bit Analog Output Value							
P5500	Slot 5 - 16-Bit Analog Output - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5500	1
Slot 5 - Analog input (SG)							
Slot 5 - Analog input (SG) - Configuration							
Slot 5 - Analog input (SG) - Configuration - Channel Enable							
P7518	Slot 5 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7518	1
Slot 5 - Analog input (SG) - Configuration - Channel Unit							
P7520	Slot 5 - Analog Channel Unit - 1 ... 2	0 = g 1 = kg 2 = t	0	rw, enum	0	7520	1
Slot 5 - Analog input (SG) - Configuration - Channel filter							
P7522	Slot 5 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7522	1
Slot 5 - Analog input (SG) - Configuration - Channel Gain							
P7524	Slot 5 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7524	1
Slot 5 - Analog input (SG) - Configuration - Channel Offset							
P7526	Slot 5 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7526	2
Slot 5 - Analog input (SG) - Configuration - Channel Full Scale							
P7530	Slot 5 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7530	1
Slot 5 - Analog input (SG) - Configuration - Channel Sensitivity							
P7532	Slot 5 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7532	1
Slot 5 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7534	Slot 5 - Analog Channel Sampling Rate - 1 ... 2		4	rw, enum	0	7534	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)					
Slot 5 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7536	Slot 5 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7536	2
Slot 5 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7540	Slot 5 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7540	1
Slot 5 - Analog input (SG) - Configuration - Filter Time Constant							
P7542	Slot 5 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7542	1
Slot 5 - Analog input (SG) - Configuration - Channel Variation Step							
P7544	Slot 5 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7544	1
Slot 5 - Analog input (SG) - Status							
Slot 5 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bit							
P7500	Slot 5 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7500	1
Slot 5 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bit							
P7502	Slot 5 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7502	2
Slot 5 - Analog input (SG) - Status - Analog SG Channel Status							
P7506	Slot 5 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7506	1
Slot 5 - Starter manager (SCW)							
Slot 5 - Starter manager (SCW) - Status							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 5 - Starter manager (SCW) - Status - Product Information							
P1500	Slot 5 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24	-	ro, 32bit	0	1500	2
P9502	Slot5 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9502	1
Slot 5 - Starter manager (SCW) - Status - Starters							
P9510	Slot5 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9510	1
P9511	Slot5 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9511	1
P9512	Slot5 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9512	1
P9513	Slot5 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9513	1
P9514	Slot5 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9514	1
P9515	Slot5 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9515	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9516	Slot5 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9516	1
P9517	Slot5 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9517	1
P9518	Slot5 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9518	1
P9519	Slot5 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9519	1
P9520	Slot5 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9520	1
P9521	Slot5 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9521	1
P9522	Slot5 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9522	1
P9523	Slot5 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9523	1
P9524	Slot5 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9524	1
P9525	Slot5 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9525	1
P9530	Slot5 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9530	2
P9532	Slot5 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9532	2
P9534	Slot5 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9534	2
P9536	Slot5 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9536	2
P9538	Slot5 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9538	2
P9540	Slot5 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9540	2
P9542	Slot5 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9542	2
P9544	Slot5 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9544	2
P9560	Slot5 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9560	1
P9561	Slot5 - P1 Status - Direction and Errors		-	ro, 16bit	0	9561	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm					
P9562	Slot5 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9562	1
P9563	Slot5 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9563	1
P9564	Slot5 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9564	1
P9565	Slot5 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9565	1
P9566	Slot5 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9566	1
P9567	Slot5 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9567	1
Slot 5 - Starter manager (SCW) - Status - Errors and Alarms							
P9570	Slot5 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil	-	ro, enum	0	9570	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor					
P9571	Slot5 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9571	1
P9572	Slot5 - P3 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9572	1
P9573	Slot5 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9573	1
P9575	Slot5 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9575	1
P9576	Slot5 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9576	1
P9577	Slot5 - P3 - Last Alarm	0 = No Alarm	-	ro, enum	0	9577	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature					
P9578	Slot5 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9578	1
Slot 5 - Starter manager (SCW) - Configurations							
Slot 5 - Starter manager (SCW) - Configurations - Starters							
P9580	Slot5 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9580	1
P9581	Slot5 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9581	1
P9582	Slot5 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9582	1
P9583	Slot5 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9583	1
P9585	Slot5 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9585	1
P9586	Slot5 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9586	1
P9587	Slot5 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9587	1
P9588	Slot5 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9588	1
P9503	Slot5 - Factory Reset	0 to 65535	0	rw, 16bit	0	9503	1
Slot 5 - Starter manager (SCW) - Configurations - Counters							
P9550	Slot5 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9550	1
P9551	Slot5 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9551	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9552	Slot5 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9552	1
P9553	Slot5 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9553	1
P9554	Slot5 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9554	1
P9555	Slot5 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9555	1
P9556	Slot5 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9556	1
P9557	Slot5 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9557	1
P9558	Slot5 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9558	1
Slot 5 - Starter manager (SCW) - Configurations - Commands							
P9590	Slot5 - Forward Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9590	1
P9591	Slot5 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9591	1
P9592	Slot5 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9592	1
P1502	Slot 5 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08	0	rw, 32bit	0	1502	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 6 - Digital Input/Output							
Slot 6 - Digital Input/Output - Digital Outputs (DOs)							
P1602	Slot 6 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21	0	rw, 32bit	0	1602	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 6 - Digital Input/Output - Digital Inputs (DIs)							
P1600	Slot 6 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24	-	ro, 32bit	0	1600	2
Slot 6 - Digital Input/Output - Configuration							
P1604	Slot 6 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1604	2
P1606	Slot 6 - Error Value	0 to 4294967295	0	rw, 32bit	0	1606	2
Slot 6 - Analog Input (AI, TH, RTD)							
Slot 6 - Analog Input (AI, TH, RTD) - Configuration							
Slot 6 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3635	Slot 6 - Active Analog Input Channel - 1 ... 7		1	rw, enum	0	3635	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv					
Slot 6 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3642	Slot 6 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3642	1
Slot 6 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							
P3649	Slot 6 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3649	1
Slot 6 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3656	Slot 6 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3656	1
Slot 6 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3663	Slot 6 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3663	1
Slot 6 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3670	Slot 6 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3670	1
Slot 6 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3678	Slot 6 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3678	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 6 - Analog Input (AI, TH, RTD) - Status							
Slot 6 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3600	Slot 6 - 16-bit processed analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3600	1
Slot 6 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3607	Slot 6 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3607	1
Slot 6 - Analog Output							
Slot 6 - Analog Output - Configuration							
Slot 6 - Analog Output - Configuration - Error Mode							
P5608	Slot 6 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5608	1
Slot 6 - Analog Output - Configuration - Error Value							
P5616	Slot 6 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5616	1
Slot 6 - Analog Output - Configuration - Channel Gain							
P5632	Slot 6 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5632	1
Slot 6 - Analog Output - Configuration - Channel Offset							
P5640	Slot 6 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5640	1
Slot 6 - Analog Output - 16-Bit Analog Output Value							
P5600	Slot 6 - 16-Bit Analog Output - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5600	1
Slot 6 - Analog input (SG)							
Slot 6 - Analog input (SG) - Configuration							
Slot 6 - Analog input (SG) - Configuration - Channel Enable							
P7618	Slot 6 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7618	1
Slot 6 - Analog input (SG) - Configuration - Channel Unit							
P7620	Slot 6 - Analog Channel Unit - 1 ... 2	0 = g	0	rw, enum	0	7620	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = kg 2 = t					
Slot 6 - Analog input (SG) - Configuration - Channel filter							
P7622	Slot 6 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7622	1
Slot 6 - Analog input (SG) - Configuration - Channel Gain							
P7624	Slot 6 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7624	1
Slot 6 - Analog input (SG) - Configuration - Channel Offset							
P7626	Slot 6 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7626	2
Slot 6 - Analog input (SG) - Configuration - Channel Full Scale							
P7630	Slot 6 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7630	1
Slot 6 - Analog input (SG) - Configuration - Channel Sensitivity							
P7632	Slot 6 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7632	1
Slot 6 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7634	Slot 6 - Analog Channel Sampling Rate - 1 ... 2	0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)	4	rw, enum	0	7634	1
Slot 6 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7636	Slot 6 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7636	2
Slot 6 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7640	Slot 6 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7640	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 6 - Analog input (SG) - Configuration - Filter Time Constant							
P7642	Slot 6 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7642	1
Slot 6 - Analog input (SG) - Configuration - Channel Variation Step							
P7644	Slot 6 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7644	1
Slot 6 - Analog input (SG) - Status							
Slot 6 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bit							
P7600	Slot 6 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7600	1
Slot 6 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bit							
P7602	Slot 6 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7602	2
Slot 6 - Analog input (SG) - Status - SG Analog Channel Status							
P7606	Slot 6 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7606	1
Slot 6 - Starter manager (SCW)							
Slot 6 - Starter manager (SCW) - Status							
Slot 6 - Starter manager (SCW) - Status - Product Information							
P1600	Slot 6 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12	-	ro, 32bit	0	1600	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
P9602	Slot6 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9602	1
Slot 6 - Starter manager (SCW) - Status - Starters							
P9610	Slot6 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9610	1
P9611	Slot6 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9611	1
P9612	Slot6 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9612	1
P9613	Slot6 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9613	1
P9614	Slot6 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9614	1
P9615	Slot6 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9615	1
P9616	Slot6 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9616	1
P9617	Slot6 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9617	1
P9618	Slot6 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9618	1
P9619	Slot6 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9619	1
P9620	Slot6 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9620	1
P9621	Slot6 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9621	1
P9622	Slot6 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9622	1
P9623	Slot6 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9623	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9624	Slot6 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9624	1
P9625	Slot6 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9625	1
P9630	Slot6 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9630	2
P9632	Slot6 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9632	2
P9634	Slot6 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9634	2
P9636	Slot6 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9636	2
P9638	Slot6 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9638	2
P9640	Slot6 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9640	2
P9642	Slot6 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9642	2
P9644	Slot6 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9644	2
P9660	Slot6 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9660	1
P9661	Slot6 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9661	1
P9662	Slot6 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9662	1
P9663	Slot6 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9663	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9664	Slot6 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9664	1
P9665	Slot6 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9665	1
P9666	Slot6 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9666	1
P9667	Slot6 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9667	1
Slot 6 - Starter manager (SCW) - Status - Errors and Alarms							
P9670	Slot6 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9670	1
P9671	Slot6 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9671	1
P9672	Slot6 - P3 - Last Error	0 = No Error	-	ro, enum	0	9672	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor					
P9673	Slot6 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9673	1
P9675	Slot6 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9675	1
P9676	Slot6 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9676	1
P9677	Slot6 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9677	1
P9678	Slot6 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9678	1
Slot 6 - Starter manager (SCW) - Configurations							
Slot 6 - Starter manager (SCW) - Configurations - Starters							
P9680	Slot6 - P1 - Operation Mode		0	rw, 8bit	0	9680	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = Starter 1 = Transparent					
P9681	Slot6 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9681	1
P9682	Slot6 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9682	1
P9683	Slot6 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9683	1
P9680	Slot6 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9680	1
P9686	Slot6 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9686	1
P9687	Slot6 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9687	1
P9688	Slot6 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9688	1
P9603	Slot6 - Factory Reset	0 to 65535	0	rw, 16bit	0	9603	1
Slot 6 - Starter manager (SCW) - Configurations - Counters							
P9650	Slot6 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9650	1
P9651	Slot6 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9651	1
P9652	Slot6 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9652	1
P9653	Slot6 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9653	1
P9654	Slot6 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9654	1
P9655	Slot6 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9655	1
P9656	Slot6 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9656	1
P9657	Slot6 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9657	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9658	Slot6 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9658	1
Slot 6 - Starter manager (SCW) - Configurations - Commands							
P9690	Slot6 - Forward Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9690	1
P9691	Slot6 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9691	1
P9692	Slot6 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9692	1
P1602	Slot 6 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19	0	rw, 32bit	0	1602	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 7 - Digital Input/Output							
Slot 7 - Digital Input/Output - Digital Outputs (DOs)							
P1702	Slot 7 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24	0	rw, 32bit	0	1702	2
Slot 7 - Digital Input/Output - Digital Inputs (DIs)							
P1700	Slot 7 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05	-	ro, 32bit	0	1700	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
Slot 7 - Digital Input/Output - Configuration							
P1704	Slot 7 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1704	2
P1706	Slot 7 - Error Value	0 to 4294967295	0	rw, 32bit	0	1706	2
Slot 7 - Analog Input (AI, TH, RTD)							
Slot 7 - Analog Input (AI, TH, RTD) - Configuration							
Slot 7 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3735	Slot 7 - Active Analog Input Channel - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv	1	rw, enum	0	3735	1
Slot 7 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3742	Slot 7 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000	0	rw, enum	0	3742	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		2 = ai: 4-20mA / th: T / rtd: Reserv					
Slot 7 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							
P3749	Slot 7 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3749	1
Slot 7 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3756	Slot 7 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3756	1
Slot 7 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3763	Slot 7 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3763	1
Slot 7 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3770	Slot 7 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3770	1
Slot 7 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3778	Slot 7 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3778	1
Slot 7 - Analog Input (AI, TH, RTD) - Status							
Slot 7 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3700	Slot 7 - 16-bit processed analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3700	1
Slot 7 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3707	Slot 7 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3707	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 7 - Analog Output							
Slot 7 - Analog Output - Configuration							
Slot 7 - Analog Output - Configuration - Error Mode							
P5708	Slot 7 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5708	1
Slot 7 - Analog Output - Configuration - Error Value							
P5716	Slot 7 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5716	1
Slot 7 - Analog Output - Configuration - Channel Gain							
P5732	Slot 7 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5732	1
Slot 7 - Analog Output - Configuration - Channel Offset							
P5740	Slot 7 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5740	1
Slot 7 - Analog Output - 16-Bit Analog Output Value							
P5700	Slot 7 - 16-Bit Analog Output Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5700	1
Slot 7 - Analog input (SG)							
Slot 7 - Analog input (SG) - Configuration							
Slot 7 - Analog input (SG) - Configuration - Channel Enable							
P7718	Slot 7 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7718	1
Slot 7 - Analog input (SG) - Configuration - Channel Unit							
P7720	Slot 7 - Analog Channel Unit - 1 ... 2	0 = g 1 = kg 2 = t	0	rw, enum	0	7720	1
Slot 7 - Analog input (SG) - Configuration - Channel filter							
P7722	Slot 7 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7722	1
Slot 7 - Analog input (SG) - Configuration - Channel Gain							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P7724	Slot 7 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7724	1
Slot 7 - Analog input (SG) - Configuration - Channel Offset							
P7726	Slot 7 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7726	2
Slot 7 - Analog input (SG) - Configuration - Channel Full Scale							
P7730	Slot 7 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7730	1
Slot 7 - Analog input (SG) - Configuration - Channel Sensitivity							
P7732	Slot 7 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7732	1
Slot 7 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7734	Slot 7 - Analog Channel Sampling Rate - 1 ... 2	0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)	4	rw, enum	0	7734	1
Slot 7 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7736	Slot 7 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7736	2
Slot 7 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7740	Slot 7 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7740	1
Slot 7 - Analog input (SG) - Configuration - Filter Time Constant							
P7742	Slot 7 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7742	1
Slot 7 - Analog input (SG) - Configuration - Channel Variation Step							
P7744	Slot 7 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7744	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 7 - Analog input (SG) - Status							
Slot 7 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bit							
P7700	Slot 7 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7700	1
Slot 7 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bit							
P7702	Slot 7 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7702	2
Slot 7 - Analog input (SG) - Status - SG Analog Channel Status							
P7706	Slot 7 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7706	1
Slot 7 - Starter manager (SCW)							
Slot 7 - Starter manager (SCW) - Status							
Slot 7 - Starter manager (SCW) - Status - Product Information							
P1700	Slot 7 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23	-	ro, 32bit	0	1700	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 23 = DI24					
P9702	Slot7 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9702	1
Slot 7 - Starter manager (SCW) - Status - Starters							
P9710	Slot7 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9710	1
P9711	Slot7 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9711	1
P9712	Slot7 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9712	1
P9713	Slot7 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9713	1
P9714	Slot7 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9714	1
P9715	Slot7 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9715	1
P9716	Slot7 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9716	1
P9717	Slot7 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9717	1
P9718	Slot7 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9718	1
P9719	Slot7 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9719	1
P9720	Slot7 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9720	1
P9721	Slot7 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9721	1
P9722	Slot7 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9722	1
P9723	Slot7 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9723	1
P9724	Slot7 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9724	1
P9725	Slot7 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9725	1
P9730	Slot7 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9730	2
P9732	Slot7 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9732	2
P9734	Slot7 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9734	2
P9736	Slot7 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9736	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9738	Slot7 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9738	2
P9740	Slot7 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9740	2
P9742	Slot7 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9742	2
P9744	Slot7 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9744	2
P9760	Slot7 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9760	1
P9761	Slot7 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9761	1
P9762	Slot7 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9762	1
P9763	Slot7 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9763	1
P9764	Slot7 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9764	1
P9765	Slot7 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9765	1
P9766	Slot7 - P4 Status - Starter		-	ro, enum	0	9766	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil					
P9767	Slot7 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9767	1
Slot 7 - Starter manager (SCW) - Status - Errors and Alarms							
P9770	Slot7 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9770	1
P9771	Slot7 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9771	1
P9772	Slot7 - P3 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9772	1
P9773	Slot7 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode	-	ro, enum	0	9773	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		5 = Wrong Contactor					
P9775	Slot7 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9775	1
P9776	Slot7 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9776	1
P9777	Slot7 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9777	1
P9778	Slot7 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9778	1
Slot 7 - Starter manager (SCW) - Configurations							
Slot 7 - Starter manager (SCW) - Configurations - Starters							
P9780	Slot7 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9780	1
P9781	Slot7 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9781	1
P9782	Slot7 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9782	1
P9780	Slot7 - P1 - Operation Mode	0 = Starter	0	rw, 8bit	0	9780	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Transparent					
P9785	Slot7 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9785	1
P9786	Slot7 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9786	1
P9787	Slot7 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9787	1
P9788	Slot7 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9788	1
P9703	Slot7 - Factory Reset	0 to 65535	0	rw, 16bit	0	9703	1
Slot 7 - Starter manager (SCW) - Configurations - Counters							
P9750	Slot7 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9750	1
P9751	Slot7 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9751	1
P9752	Slot7 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9752	1
P9753	Slot7 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9753	1
P9754	Slot7 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9754	1
P9755	Slot7 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9755	1
P9756	Slot7 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9756	1
P9757	Slot7 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9757	1
P9758	Slot7 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9758	1
Slot 7 - Starter manager (SCW) - Configurations - Commands							
P9790	Slot7 - Forward Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9790	1
P9791	Slot7 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9791	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9792	Slot7 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9792	1
P1702	Slot 7 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24	0	rw, 32bit	0	1702	2
Slot 8 - Digital Input/Output							
Slot 8 - Digital Input/Output - Digital Outputs (DOs)							
P1802	Slot 8 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05	0	rw, 32bit	0	1802	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					
Slot 8 - Digital Input/Output - Digital Inputs (DIs)							
P1800	Slot 8 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19	-	ro, 32bit	0	1800	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24					
Slot 8 - Digital Input/Output - Configuration							
P1804	Slot 8 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1804	2
P1806	Slot 8 - Error Value	0 to 4294967295	0	rw, 32bit	0	1806	2
Slot 8 - Analog Input (AI, TH, RTD)							
Slot 8 - Analog Input (AI, TH, RTD) - Configuration							
Slot 8 - Analog Input (AI, TH, RTD) - Configuration - Active Channel							
P3835	Slot 8 - Active Analog Input Channel - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active with CJC / rtd: Active 2 = ai: Reserv / th: Active without CJC / rtd: Reserv	1	rw, enum	0	3835	1
Slot 8 - Analog Input (AI, TH, RTD) - Configuration - Channel Type							
P3842	Slot 8 - Analog Input Channel Type - 1 ... 7	0 = ai: 0-10V / th: J / rtd: PT100 1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3842	1
Slot 8 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit							
P3849	Slot 8 - Analog Input Channel Unit 1 - 1 ... 7	0 = ai: Not used/ th: °C / rtd: °C 1 = ai: Not used/ th: °F / rtd: °F 2 = ai: Not used / th: K / rtd: K	0	rw, enum	0	3849	1
Slot 8 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit							
P3856	Slot 8 - Decimal Digit of the Analog Input Channel - 1 ... 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1 2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1	1	rw, enum	0	3856	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 8 - Analog Input (AI, TH, RTD) - Configuration - Channel filter							
P3863	Slot 8 - Filter of the Analog Input Channel - 1 ... 7	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	3863	1
Slot 8 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain							
P3870	Slot 8 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3870	1
Slot 8 - Analog Input (AI, TH, RTD) - Configuration - Channel Offset							
P3878	Slot 8 - Offset of the Analog Input Channel - 1 ... 7	-32768 to 32767	0	rw, s16bit	0	3878	1
Slot 8 - Analog Input (AI, TH, RTD) - Status							
Slot 8 - Analog Input (AI, TH, RTD) - Status - 16-Bit Analog Input							
P3800	Slot 8 - 16-bit processed analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3800	1
Slot 8 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status							
P3807	Slot 8 - Analog Channel Status - 1 ... 7	0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3807	1
Slot 8 - Analog Output							
Slot 8 - Analog Output - Configuration							
Slot 8 - Analog Output - Configuration - Error Mode							
P5808	Slot 8 - Analog Output Error Mode - 1 ... 8	0 to 255	0	rw, 8bit	0	5808	1
Slot 8 - Analog Output - Configuration - Error Value							
P5816	Slot 8 - Analog Output Error Value - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5816	1
Slot 8 - Analog Output - Configuration - Channel Gain							
P5832	Slot 8 - Analog Output Channel Gain - 1 ... 8	0 to 65535	1000	rw, 16bit	0	5832	1
Slot 8 - Analog Output - Configuration - Channel Offset							
P5840	Slot 8 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5840	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 8 - Analog Output - 16-Bit Analog Output Value							
P5800	Slot 8 - 16-Bit Analog Output - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5800	1
Slot 8 - Analog input (SG)							
Slot 8 - Analog input (SG) - Configuration							
Slot 8 - Analog input (SG) - Configuration - Channel Enable							
P7818	Slot 8 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7818	1
Slot 8 - Analog input (SG) - Configuration - Channel Unit							
P7820	Slot 8 - Analog Channel Unit - 1 ... 2	0 = g 1 = kg 2 = t	0	rw, enum	0	7820	1
Slot 8 - Analog input (SG) - Configuration - Channel filter							
P7822	Slot 8 - Analog Channel Filter - 1 ... 2	0 = No Filter 1 = Average of 2 Values 2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values	4	rw, enum	0	7822	1
Slot 8 - Analog input (SG) - Configuration - Channel Gain							
P7824	Slot 8 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7824	1
Slot 8 - Analog input (SG) - Configuration - Channel Offset							
P7826	Slot 8 - Analog Channel Offset - 1 ... 2	-2147483648 to 2147483647	0	rw, s32bit	0	7826	2
Slot 8 - Analog input (SG) - Configuration - Channel Full Scale							
P7830	Slot 8 - Analog Channel Full Scale - 1 ... 2	0 to 65535	10000	rw, 16bit	0	7830	1
Slot 8 - Analog input (SG) - Configuration - Channel Sensitivity							
P7832	Slot 8 - Analog Channel Sensitivity - 1 ... 2	0 to 255	2	rw, 8bit	0	7832	1
Slot 8 - Analog input (SG) - Configuration - Channel Sampling Rate							
P7834	Slot 8 - Analog Channel Sampling Rate - 1 ... 2		4	rw, enum	0	7834	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		0 = 1.68 SPS (596.12 ms) 1 = 3.35 SPS (298.06 ms) 2 = 6.71 SPS (149.03 ms) 3 = 13.42 SPS (74.52 ms) 4 = 26.83 SPS (36.27 ms) 5 = 53.66 SPS (18.64 ms) 6 = 107.32 SPS (9.32 ms)					
Slot 8 - Analog input (SG) - Configuration - Maximum Channel Variation							
P7836	Slot 8 - Maximum Analog Channel Variation - 1 ... 2	0 to 4294967295	100000	rw, 32bit	0	7836	2
Slot 8 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value							
P7840	Slot 8 - Analog Channel Discard Value - 1 ... 2	0 = Maintain 1 = Discard	0	rw, enum	0	7840	1
Slot 8 - Analog input (SG) - Configuration - Filter Time Constant							
P7842	Slot 8 - Analog Channel Filter - 1 ... 2	0 to 65535	0	rw, 16bit	0	7842	1
Slot 8 - Analog input (SG) - Configuration - Channel Variation Step							
P7844	Slot 8 - Analog Channel Variation Step - 1 ... 2	0 = step 1 (000, 001, 002, 003...) 1 = step 2 (000, 002, 004, 006 ...) 2 = step 5 (000, 005, 010, 015...) 3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)	0	rw, enum	0	7844	1
Slot 8 - Analog input (SG) - Status							
Slot 8 - Analog input (SG) - Status - Weight (g, kg, t) 16 Bit							
P7800	Slot 8 - Weight (g, kg, t) 16 Bit - 1 ... 2	-32768 to 32767	-	ro, s16bit	0	7800	1
Slot 8 - Analog input (SG) - Status - Weight (g, kg, t) 32 Bit							
P7802	Slot 8 - Weight (g, kg, t) 32 Bit - 1 ... 2	-2147483648 to 2147483647	-	ro, s32bit	0	7802	2
Slot 8 - Analog input (SG) - Status - SG Analog Channel Status							
P7806	Slot 8 - Analog Channel Status - 1 ... 2	0 = Inactive 1 = Active	-	ro, enum	0	7806	1
Slot 8 - Starter manager (SCW)							
Slot 8 - Starter manager (SCW) - Status							

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
Slot 8 - Starter manager (SCW) - Status - Product Information							
P1800	Slot 8 - Digital Inputs (DIs)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07 Bit 7 = DI08 Bit 8 = DI09 Bit 9 = DI10 Bit 10 = DI11 Bit 11 = DI12 Bit 12 = DI13 Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16 Bit 16 = DI17 Bit 17 = DI18 Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24	-	ro, 32bit	0	1800	2
P9802	Slot8 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9802	1
Slot 8 - Starter manager (SCW) - Status - Starters							
P9810	Slot8 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9810	1
P9811	Slot8 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9811	1
P9812	Slot8 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9812	1
P9813	Slot8 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9813	1
P9814	Slot8 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9814	1
P9815	Slot8 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9815	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9816	Slot8 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9816	1
P9817	Slot8 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9817	1
P9818	Slot8 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9818	1
P9819	Slot8 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9819	1
P9820	Slot8 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9820	1
P9821	Slot8 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9821	1
P9822	Slot8 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9822	1
P9823	Slot8 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9823	1
P9824	Slot8 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9824	1
P9825	Slot8 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9825	1
P9830	Slot8 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9830	2
P9832	Slot8 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9832	2
P9834	Slot8 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9834	2
P9836	Slot8 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9836	2
P9838	Slot8 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9838	2
P9840	Slot8 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9840	2
P9842	Slot8 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9842	2
P9844	Slot8 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9844	2
P9860	Slot8 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9860	1
P9861	Slot8 - P1 Status - Direction and Errors		-	ro, 16bit	0	9861	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm					
P9862	Slot8 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9862	1
P9863	Slot8 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9863	1
P9864	Slot8 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9864	1
P9865	Slot8 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9865	1
P9866	Slot8 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9866	1
P9867	Slot8 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9867	1
Slot 8 - Starter manager (SCW) - Status - Errors and Alarms							
P9870	Slot8 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil	-	ro, enum	0	9870	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor					
P9871	Slot8 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9871	1
P9872	Slot8 - P3 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9872	1
P9873	Slot8 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9873	1
P9875	Slot8 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9875	1
P9876	Slot8 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9876	1
P9877	Slot8 - P3 - Last Alarm	0 = No Alarm	-	ro, enum	0	9877	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature					
P9878	Slot8 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9878	1
Slot 8 - Starter manager (SCW) - Configurations							
Slot 8 - Starter manager (SCW) - Configurations - Starters							
P9880	Slot8 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9880	1
P9881	Slot8 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9881	1
P9882	Slot8 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9882	1
P9883	Slot8 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9883	1
P9885	Slot8 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9885	1
P9886	Slot8 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9886	1
P9887	Slot8 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9887	1
P9888	Slot8 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9888	1
P9803	Slot8 - Factory Reset	0 to 65535	0	rw, 16bit	0	9803	1
Slot 8 - Starter manager (SCW) - Configurations - Counters							
P9850	Slot8 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9850	1
P9851	Slot8 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9851	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
P9852	Slot8 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9852	1
P9853	Slot8 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9853	1
P9854	Slot8 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9854	1
P9855	Slot8 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9855	1
P9856	Slot8 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9856	1
P9857	Slot8 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9857	1
P9858	Slot8 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9858	1
Slot 8 - Starter manager (SCW) - Configurations - Commands							
P9890	Slot8 - Forward Starter Command	Bit 0 = Starter 1 - forward Bit 1 = Starter 2 - forward Bit 2 = Starter 3 - forward Bit 3 = Starter 4 - forward	0	rw, 16bit	0	9890	1
P9891	Slot8 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse	0	rw, 16bit	0	9891	1
P9892	Slot8 - Stop Command	Bit 0 = Starter 1 - turn off Bit 1 = Starter 2 - turn off Bit 2 = Starter 3 - turn off Bit 3 = Starter 4 - turn off	0	rw, 16bit	0	9892	1
P1802	Slot 8 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08	0	rw, 32bit	0	1802	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Qty of Mapped Words
		Bit 8 = DO09 Bit 9 = DO10 Bit 10 = DO11 Bit 11 = DO12 Bit 12 = DO13 Bit 13 = DO14 Bit 14 = DO15 Bit 15 = DO16 Bit 16 = DO17 Bit 17 = DO18 Bit 18 = DO19 Bit 19 = DO20 Bit 20 = DO21 Bit 21 = DO22 Bit 22 = DO23 Bit 23 = DO24					

Table 9.2: *Description of the parameter data types*

Data Type	Description
enum	Enumerated type (unsigned 8-bit) contains a list of values with function description for each item.
8bit	Unsigned 8-bit integer, ranges from 0 to 255.
s8bit	Signed 8-bit integer, ranges from -128 to 127.
16bit	Unsigned 16-bit integer, ranges from 0 to 65,535.
s16bit	Signed 16-bit integer, ranges from -32,768 to 32,767.
32bit	Unsigned 32-bit integer, ranges from 0 to 4,294,967,295.
s32bit	Signed 32-bit integer, ranges from -2,147,483,648 to 2,147,483,647.
16bit	Unsigned 16-bit integer, ranges from 0 to 65,535.
ip addr	Unsigned 32-bit integer representing the octets of the IP address.
mac addr	48-bit identifier displayed in XX:XX:XX:XX:XX:XX format.
date and time epoch	Displays the date and time value in Epoch format, which are the seconds counted from January 1, 1970 at 00:00:00.

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