

Ethernet

PLC20X

User's Manual

User's Manual

PLC20X

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SUMMARY OF REVISIONS

The information below describes the reviews made in this manual.

Version	Revision	Description
V1.00.XX	R00	First edition.
V1.00.XX	R01	Formatting adjustment.
V1.01.XX	R02	Modification in the parameter structure.
V1.02.XX	R03	Added WEB server and general review.
V1.03.XX	R04	Added PLC201.

CONTENTS

ABOUT THE MANUAL	0-1
ABBREVIATIONS AND DEFINITIONS	0-1
NUMERICAL REPRESENTATION	0-1
IMPORTANT NOTICE	0-2
TRADEMARKS	0-2
1 MAIN CHARACTERISTICS	1-1
1.1 MODBUS TCP SPECIFIC CHARACTERISTICS	1-1
1.2 ETHERNET/IP SPECIFIC CHARACTERISTICS	1-1
2 INTERFACE DESCRIPTION	2-1
2.1 CONNECTOR	2-1
2.2 INDICATION LEDS	2-1
3 ETHERNET NETWORK INSTALLATION	3-1
3.1 IP ADDRESS	3-1
3.2 COMMUNICATION RATE	3-1
3.3 CABLE	3-1
3.4 NETWORK TOPOLOGY	3-1
3.5 RECOMMENDATIONS FOR GROUNDING CONNECTION AND CABLE ROUTING	3-2
4 PRODUCT	4-1
4.1 STATUS	4-2
4.1.1 Communication	4-2
4.1.1.1 Ethernet	4-2
4.1.1.2 EtherNet/IP	4-2
4.1.1.3 Modbus TCP	4-3
4.1.1.4 MQTT	4-4
4.1.1.5 SNTP	4-5
4.1.2 CONFIGURATION	4-5
4.2.1 Communication	4-5
4.2.1.1 Communication Errors	4-5
4.2.1.2 I/O Data	4-6
4.2.1.3 Ethernet	4-7
4.2.1.4 EtherNet/IP	4-9
4.2.1.5 Modbus TCP	4-9
4.2.1.6 MQTT	4-10
4.2.1.7 SNTP	4-11
5 OPERATION IN THE MODBUS TCP NETWORK – SERVER	5-1
5.1 AVAILABLE FUNCTIONS	5-1
5.2 MEMORY MAP	5-1
5.2.1 Parameters	5-1
5.2.2 Indirect Parameters	5-2
5.2.3 Markers	5-2
5.3 DATA ACCESS	5-3
5.4 GATEWAY MODBUS TCP/RTU	5-3
5.5 COMMUNICATION ERRORS	5-3
6 OPERATION IN THE MODBUS TCP NETWORK – CLIENT	6-1
6.1 BLOCKS FOR PROGRAMMING	6-1
6.1.1 MB TCP Read Binary – Reading bits	6-1
6.1.2 MB TCP Read Register – Reading registers	6-2
6.1.3 MB TCP Write Binary – Writing bits	6-2
6.1.4 MB TCP Write Register – Writing registers	6-3

6.1.5 MB TCP Client Control/Status – Control and status the Modbus TCP	6-3
6.1.6 MB TCP Server Status – Server status the network Modbus TCP	6-4
7 OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER	7-1
7.1 I/O INSTANCES	7-1
7.2 CYCLIC DATA	7-1
7.2.1 Input words	7-1
7.2.2 Output Words	7-2
7.3 ACYCLIC DATA	7-3
7.4 EDS FILE	7-4
7.5 SUPPORTED OBJECT CLASSES	7-4
7.5.1 Identity Class (01h)	7-4
7.5.2 Message Router Class (02h)	7-4
7.5.3 Assembly Class (04h)	7-5
7.5.4 Connection Manager Class (06h)	7-5
7.5.5 QoS Class (48h)	7-6
7.5.6 SNMP Class (52h)	7-6
7.5.7 Port Class (F4h)	7-7
7.5.8 TCP/IP Interface Class (F5h)	7-7
7.5.9 Ethernet Link Class (F6h)	7-8
7.5.10 LLDP Management Class (109h)	7-9
7.5.11 Manufacturer Specific Class (64h)	7-9
8 STARTUP GUIDE - MODBUS TCP	8-1
8.1 INSTALLING THE ACCESSORY	8-1
8.2 CONFIGURING THE EQUIPMENT	8-1
8.3 CONFIGURING THE CLIENT	8-1
8.4 COMMUNICATION STATUS	8-1
9 STARTUP GUIDE - ETHERNET/IP	9-1
9.1 INSTALLING THE ACCESSORY	9-1
9.2 CONFIGURING THE EQUIPMENT	9-1
9.3 CONFIGURING THE SCANNER	9-1
9.4 COMMUNICATION STATUS	9-2
9.5 OPERATION USING PROCESS DATA	9-2
9.6 ACCESS TO PARAMETERS – ACYCLIC MESSAGES	9-2
10 WEB SERVER	10-1
11 SNTP CLIENT	11-1
12 QUICK REFERENCE OF ALARMS AND FAULTS	12-1
13 QUICK REFERENCES	13-1

ABOUT THE MANUAL

This manual supplies the necessary information for the operation of the PLC20X programmable logic controller using the Ethernet interface. This manual must be used together with the PLC20X user's manual and programming manual.

ABBREVIATIONS AND DEFINITIONS

ASCII	American Standard Code for Information Interchange
CRC	Cycling Redundancy Check
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 - MODBUS TCP

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 Messaging On TCP/IP Implementation Guide, October 24th 2006.	V1.0b	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.

DOCUMENTS - ETHERNET/IP

The EtherNet/IP protocol was developed based on the following specifications and documents:

Document	Version	Source
Volume One - Common Industrial Protocol (CIP) Specification	3.32	ODVA
Volume Two - EtherNet/IP Adaptation of CIP	1.30	ODVA
Media Planning and Installation Manual - EtherNet/IP	PUB00148R0	ODVA

In order to obtain this documentation, consult ODVA, which is nowadays the organization that keeps, publishes and updates the information related to the EtherNet/IP network.

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

All other trademarks are the property of their respective holders.

1 MAIN CHARACTERISTICS

Below are the main characteristics for communication of the programmable logic controller PLC20X.

- The interface follows the Fast Ethernet 100BASE-TX standard.
- It allows communication using the 10 or 100 Mbps rates in half or full duplex mode.
- Supports standard-sized Ethernet frames (up to 1500 bytes).
- It has an Ethernet port.
- The Ethernet port work with Auto-MDIX (automatic medium-dependent interface crossover), a technology which automatically detects the type of cable used and configures the connection accordingly, eliminating the need of cross-over cables.
- It has an integrated WEB server (HTTP), which provides access to equipment information.

1.1 MODBUS TCP SPECIFIC CHARACTERISTICS

- Operates as Modbus TCP server and client.
- The server provides up to 4 simultaneous Modbus TCP connections.
- Allows data communication for equipment operation and parameterization, as well as markers and data used for PLC20X ladder programming.

1.2 ETHERNET/IP SPECIFIC CHARACTERISTICS

- It is supplied with an EDS file for the network scanner configuration.
- Allows up to 50 input words and 50 output words for cyclic data communication.
- Supports manufacturer-specific profiles.
- Acyclic data available for parameterization.
- Up to 4 CIP Class 1 and Class 3 connections.
- Support to Unconnected Explicit Messages.

2 INTERFACE DESCRIPTION

2.1 CONNECTOR

The peripheral for Ethernet communication has one RJ45 connector for network connection. The connector pin out follows the Fast Ethernet 100BASE-TX standard, using two pairs of cables for data transmission and reception.

The housing of the Ethernet connector, which normally connects to the cable shield, is connected to protective ground through an RC circuit.

2.2 INDICATION LEDS

The peripheral for Ethernet communication has a LED for speed indication and another for link/activity network indication, and one bicolor LED for status indication (ETH). These LEDs have the following functions and indications.

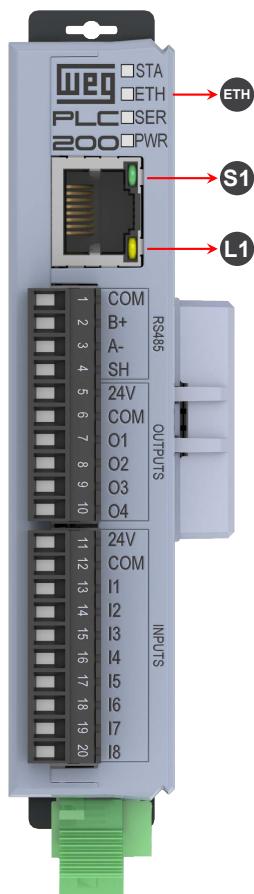


Table 2.1: LED S1 - Speed

State	Description
Off	Equipment off or 10 Mbps link.
Green, solid	100 Mbps link.

Table 2.2: LED L1 - Link/Activity

State	Description
Off	Equipment off or no link.
Amber, solid	Link up and no activity.
Amber, flashing	Link up and activity.

INTERFACE DESCRIPTION

Table 2.3: LED ETH

Status	Description	Comments
Off	No power	-
Flashing green/red	Equipment performing self-diagnosis	It occurs during initialization.
Green, flashing (100ms ON / 100ms OFF)	DHCP enabled, waiting for receiving IP Address configuration.	-
Green, flashing (250ms ON / 250ms OFF)	IP address configured and waiting for Modbus TCP or EtherNet/IP (Exclusive Owner) connection.	-
Green, solid	Equipment active, at least one Modbus TCP or EtherNet/IP (Exclusive Owner) connection established.	-
Red, flashing (100ms ON / 100ms OFF)	Recoverable failure.	-
Red, flashing (250ms ON / 250ms OFF)	EtherNet/IP (Exclusive Owner) connection timeout.	Indicates EtherNet/IP (Exclusive Owner) connection has timed out.
Red, flashing (500ms ON / 500ms OFF)	Modbus TCP connection timeout.	Indicates Modbus TCP connection has timed out.
Red, solid	Fatal error	Reinitializing the equipment is required.

3 ETHERNET NETWORK INSTALLATION

This chapter presents recommendations related to equipment installation in an Ethernet network.

3.1 IP ADDRESS

Every equipment in an Ethernet network needs an IP address and subnet mask.

The IP addressing is unique in the network, and each equipment must have a different IP. The subnet mask is used to define which IP address range is valid in the network.

The programmable logic controller PLC20X allows the use of two methods for programming these features, programmable via P0850:

- Static IP: uses the configurations of IP address, mask and gateway as programmed on equipment parameters.
- DHCP: enable the configuration of the PLC20X via DHCP server. The DHCP can automatically assign IP addresses, subnet mask, etc. to the devices on the network. The configurations performed via parameters are disregarded.

3.2 COMMUNICATION RATE

The Ethernet interfaces of the PLC20X programmable logic controller can communicate using the 10 or 100 Mbps rates in half or full duplex mode.



NOTE!

It is important that, for each Ethernet connection made between two points, the baud rate and the duplex mode are set to the same option. If the option AUTO is used in one of the points, you must set the other point also to AUTO, or to half duplex mode.



NOTE!

- This equipment does not support the use of jumbo frames (Ethernet packets larger than 1500 bytes). This is because the device does not operate at gigabit speeds, which are required to ensure the transmission and processing of these packets.
- In mixed networks, where other equipment supports jumbo frames, it is important to ensure that this equipment is on a network segment configured to use standard-sized packets (1500 bytes) to avoid communication problems.

3.3 CABLE

Recommended characteristics of the cable used in the installation:

- Standard Ethernet cable, 100Base-TX (FastEthernet), CAT 5e or higher.
- Shielded cable.
- Maximum length between devices: 100 m.

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

3.4 NETWORK TOPOLOGY

To connect PLC20X programmable logic controller in an Ethernet network, usually the star connection is made using an industrial switch.

Figure 3.1: Star topology

**NOTE!**

When the equipment is turned off, the built-in switch is also deactivated, preventing communication with the subsequent equipment.

3.5 RECOMMENDATIONS FOR GROUNDING CONNECTION AND CABLE ROUTING

The correct connection with the ground decreases problems caused by interference in an industrial environment. The following are some recommendations about grounding and cable routing:

- Always use shielded twisted pair Ethernet cables and connectors with metallic housing.
- Connect the equipment grounding via grounding terminal. Avoid the cable connection on multiple grounding points, especially where there are grounds with different potentials.
- Pass signal cables and communication cables in dedicated pathways. Prevent laying these cables next to power cables.

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 PLC20X is turned off, it is necessary to save the parameters in Flash memory through P0204.



NOTE!

Product parameters may change depending on the model.



NOTE!

The full list of parameters can be seen in the [Section 13 QUICK REFERENCES](#) on page 13-1.

PRODUCT

4.1 STATUS

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

4.1.1 Communication

4.1.1.1 Ethernet

It allows viewing the status of the Ethernet network interface and the commands received by this interface.

P0846: ETH - Actual IP Address

Adjustable Range:	0.0.0.0 to 255.255.255.255	Factory Setting:	0.0.0.0
Properties:	ro, ip addr		

Description:

It allows viewing the IP address in use by the Ethernet interface.

P0889: ETH - Interface Status

Adjustable Range:	0 ... 8 Bit	Factory Setting:	0
Properties:	ro, 16bit		

Description:

It indicates the status of the Ethernet network interface. Each bit represents a state.

Bit	Value/Description
Bit 0 Link 1	0: No link on the port. 1: Active link on the port.
Bit 1 Link 2	0: No link on the port. 1: Active link on the port.
Bit 2 ... 7 Reserved	0: Not used. 1: Not used.

P0891: ETH - MAC Address

Adjustable Range:	00:00:00:00:00:00 to FF:FF:FF:FF:FF:FF	Factory Setting:	-
Properties:	ro, mac addr		

Description:

MAC address of the product.

4.1.1.2 EtherNet/IP

It allows viewing information about the EtherNet/IP protocol.

P0869: EIP - Scanner Status

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

Description:

It indicates the EtherNet/IP network scanner status. It may be in operation mode (Run) or in configuration mode (Idle).

Indication	Description
0 = Run	Reading and writing telegrams are processed and updated normally by the scanner.
1 = Idle	Only reading telegrams from the adapters are updated by the scanner. Writing, in this case, is disabled.

P0870: EIP - Communication Status**Adjustable Range:** 0 ... 4**Factory Setting:** 0**Properties:** ro, enum**Description:**

It indicates EtherNet/IP communication status.

Indication	Description
0 = Inactive	Not used.
1 = No connection	It indicates that the EtherNet/IP network interface has been initialized, but it is not communicating with the network scanner.
2 = Connected	It indicates that communication with the network scanner has been established, and I/O data is being successfully communicated.
3 = Timeout in I/O connection	I/O type connection has expired.
4 = Duplicate IP	Not used.

4.1.1.3 Modbus TCP

It allows viewing information about the Modbus TCP protocol.

P0097: Modbus TCP Program Status**Adjustable Range:** 0 ... 1**Factory Setting:** 0**Properties:** ro, enum**Description:**

It indicates the status of the Modbus TCP program.

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

P0860: MBTCP - Communication Status**Adjustable Range:** 0 ... 3**Factory Setting:** 0**Properties:** ro, enum**Description:**

It allows identifying the status of communication with the Modbus TCP client.

Indication	Description
0 = Inactive	Communication disabled.
1 = No connection	Communication enabled, but no Modbus TCP connection active.

PRODUCT

Indication	Description
2 = Connected	At least one active Modbus TCP connection.
3 = Timeout Error	The equipment detected timeout in the Modbus TCP communication, programmed via P0868.

P0861: MBTCP - Received Telegrams

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

Description:

It indicates the number of telegrams received from the Modbus TCP server/client.

P0862: MBTCP - Transmitted Telegrams

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

Description:

It indicates the number of telegrams sent to the Modbus TCP server/client.

P0863: MBTCP - Active Connections

Adjustable Range:	0 ... 4	Factory Setting: 0
Properties:	ro, 8bit	

Description:

It indicates the number of Modbus TCP connections active in the product.

The equipment allows up to four simultaneous Modbus TCP connections. If a connection is inactive for a time set through P0864, the connection is automatically closed by the server.

4.1.1.4 MQTT

P0841: MQTT - Status

Adjustable Range:	0 ... 4	Factory Setting: 0
Properties:	ro, enum	

Description:

It indicates the status of the Embedded Drive Scan function, regarding settings and the sending of data to the server.

Indication	Description
0 = Inactive	It indicates that the MQTT client function is not set; it is disabled.
1 = No Connection	It indicates that the MQTT client has been set and is enabled, but there is currently no active connection to the configured Broker.
2 = Connected (Pub)	It indicates that the Embedded Drive Scan function has been set up and is enabled, and has an active connection to the configured Broker for publishing data.

Indication	Description
3 = Connected (Pub/Sub)	It indicates that the MQTT client function has been set up and is enabled, and has an active connection to the configured Broker for publishing and receiving data.
4 = Connection fail	Indicates a failure while connecting the MQTT client to the configured Broker.

P0842: Last Public. MQTT

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

Description:

It indicates the date and time of the last successful sending of collected data to the Embedded Drive Scan function.

4.1.1.5 SNTP**P0778: SNTP - Status**

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

Description:

It indicates the status of the NTP server, regarding configuration and receiving data from the server.

Indication	Description
0 = Inactive	It indicates that the NTP server is not configured; it is disabled.
1 = No Connection	It indicates that the NTP server has been set up and is enabled, but currently has no active connection.
2 = Connected	It indicates that the NTP server has been set up and is enabled, and has active connection.

P0780: SNTP - Last Update

Adjustable Range:	0 ... 4294967295	Factory Setting:	1704070861
Properties:	ro, date and time epoch		

Description:

It indicates the date and time of the last NTP server update.

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.

PRODUCT

P0624: Action for Communication Error

Adjustable Range:	0 ... 1	Factory Setting:	0
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 Ethernet

Settings for the product Ethernet interface.

P0798: ETH - Enable protocols

Adjustable Range:	0 ... 1 Bit	Factory Setting:	0
Properties:	rw, 16bit		

Description:

It allows enabling and disabling functionalities of some protocols, limiting the exposure of the PLC20X via network.

Bit	Value/Description
Bit 0	0: Protocol disabled.
Web Server	1: Protocol enabled.

P0850: ETH - IP Address Settings

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

Description:

It allows you to program how the IP address should be set on the product.

Indication	Description
0 = Static IP	The IP address, subnet mask and gateway must be set through parameters P0852 to P0856.
1 = DHCP	Enables the DHCP function. The IP address and other network settings are received from a DHCP server via network.

P0852: ETH - IP Address

Adjustable Range:	0.0.0.0 to 255.255.255.255	Factory Setting:	192.168.1.10
Properties:	rw, ip addr		

PRODUCT

Description:

It allows setting the IP address of the Ethernet interface. It only takes effect if P0850 = Parameters.

P0855: ETH - Network Mask

Adjustable Range:	0 ... 31	Factory Setting:	24
Properties:	rw, enum		

Description:

It allows setting the subnet mask of the Ethernet interface. It only takes effect if P0850 = Parameters.

The following table shows the allowable values for CIDR and the equivalent dot-separated notation for the subnet mask:

Indication	Description
0 = Not used	Not used.
1 = 128.0.0.0	Subnet mask
2 = 192.0.0.0	Subnet mask
3 = 224.0.0.0	Subnet mask
4 = 240.0.0.0	Subnet mask
5 = 248.0.0.0	Subnet mask
6 = 252.0.0.0	Subnet mask
7 = 254.0.0.0	Subnet mask
8 = 255.0.0.0	Subnet mask
9 = 255.128.0.0	Subnet mask
10 = 255.192.0.0	Subnet mask
11 = 255.224.0.0	Subnet mask
12 = 255.240.0.0	Subnet mask
13 = 255.248.0.0	Subnet mask
14 = 255.252.0.0	Subnet mask
15 = 255.254.0.0	Subnet mask
16 = 255.255.0.0	Subnet mask
17 = 255.255.128.0	Subnet mask
18 = 255.255.192.0	Subnet mask
19 = 255.255.224.0	Subnet mask
20 = 255.255.240.0	Subnet mask
21 = 255.255.248.0	Subnet mask
22 = 255.255.252.0	Subnet mask
23 = 255.255.254.0	Subnet mask
24 = 255.255.255.0	Subnet mask. Factory setting.
25 = 255.255.255.128	Subnet mask
26 = 255.255.255.192	Subnet mask
27 = 255.255.255.224	Subnet mask
28 = 255.255.255.240	Subnet mask
29 = 255.255.255.248	Subnet mask
30 = 255.255.255.252	Subnet mask
31 = 255.255.255.254	Subnet mask

P0856: ETH - Gateway

Adjustable Range:	0.0.0.0 to 255.255.255.255	Factory Setting:	0.0.0.0
Properties:	rw, ip addr		

Description:

It allows setting the IP address of the default gateway for the Ethernet interface. It only takes effect if P0850 =

Parameters.

P0890: ETH - Interface Control

Adjustable Range:	0 ... 3 Bit	Factory Setting:	9
Properties:	rw, 16bit		

Description:

It configures the Ethernet network interface. Each bit represents a configuration.

Bit	Value/Description
Bit 0 Auto Negotiate Link	0: Autonegotiation inactive on link 1: Autonegotiation active on link
Bit 1 Speed Link	0: 10 Mbit/s on link 1: 100 Mbit/s on link
Bit 2 Forced Duplex Link	0: Half duplex on link 1: Full duplex on link

4.2.1.4 EtherNet/IP

It allows programming how the writing and reading data exchange of the EtherNet/IP network protocol should be using the Ethernet interface of the PLC20X.

P0871: EIP - I/O instances

Adjustable Range:	0 ... 10	Factory Setting:	10
Properties:	rw, enum		

Description:

It allows to select which instance of the Assembly class is used when exchanging I/O data with the network scanner.

The defined Assembly class instance defines the format of the cyclic data (I / O) communicated with the device.

Indication	Description
0 ... 9 = Not used	Not used.
10 = 102/152 Config I/O data	In these instances it is possible to program up to 50 parameters of the equipment itself for reading and/or 50 for writing via network.

4.2.1.5 Modbus TCP

It allows programming the settings of the Modbus TCP network protocol using the Ethernet interface of the PLC20X.

P0096: Modbus TCP Program Command

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

Description:

Modbus TCP program command.

Indication	Description
0 = Enable Modbus TCP Client	It enables the Modbus TCP client.

PRODUCT

Indication	Description
1 = Disables Modbus TCP Client	It disables the Modbus TCP client.

P0864: MBTCP - Connection Timeout

Adjustable Range:	0 ... 65535 s	Factory Setting:	65
Properties:	rw, 16bit		

Description:

Connection time in Modbus TCP communication.

After opening a Modbus TCP connection, if the equipment does not receive valid telegrams within the period programmed in this parameter, it will end the communication.

P0865: MBTCP - TCP Port

Adjustable Range:	0 ... 65535	Factory Setting:	502
Properties:	rw, 16bit		

Description:

It allows setting the number of the TCP port used for Modbus TCP connections.

Port 502 is the default TCP port for Modbus TCP connections, and it is always available. If you want an additional port to establish Modbus TCP connections, you can set the number of another TCP port in this parameter.

**NOTE!**

After changing this property, the device must be turned off and back on to effect the modifications.

P0868: MBTCP - Timeout

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

Description:

Time to detect interruption in Modbus TCP communication.

Time counting will start from the first valid telegram received.

The value 0.0 disables this function.

4.2.1.6 MQTT

P0844: MQTT - Enable/Disable

Adjustable Range:	0 ... 2	Factory Setting:	1
Properties:	rw, enum		

Description:

Allow user to enable, disable or enable only the MQTT publish feature (no subscription).

Indication	Description
0 = Disable	Disable the MQTT client.
1 = Enable	Enable the MQTT client for publishing and subscribing.
2 = Enable only publish	Enable the MQTT client for publishing only.

4.2.1.7 SNTP

P0770: SNTP - Server 1

Adjustable Range:	0.0.0.0 to 255.255.255.255	Factory Setting:	0.0.0.0
Properties:	rw, ip addr		

Description:

It allows programming the IP address of the NTP primary server. If the value is zero, the NTP client is disabled.

P0774: SNTP - Server 2

Adjustable Range:	0.0.0.0 to 255.255.255.255	Factory Setting:	0.0.0.0
Properties:	rw, ip addr		

Description:

It allows programming the IP address of the NTP secondary server.

P0779: SNTP - Update Interval

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

Description:

It indicates the NTP server date and time update interval. If the value is zero, the NTP client is disabled. The minimum interval is 15 seconds.

5 OPERATION IN THE MODBUS TCP NETWORK – SERVER

5.1 AVAILABLE FUNCTIONS

In the Modbus specification are defined the functions used to access different types of data. In the PLC20X, 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 PLC20X 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 PLC20X 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.

OPERATION IN THE MODBUS TCP NETWORK – SERVER



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 PLC20X, 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 4-6](#).

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 PLC20X. 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:

1 st Register – 0		2 nd Register – 1		3 rd Register – 2		4 th 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 of the PLC200 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.



NOTE!

- Messages with Unit ID equal to 0 or 255 will be interpreted by 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:

OPERATION IN THE MODBUS TCP NETWORK – SERVER

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: <ul style="list-style-type: none">■ 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 TCP NETWORK – CLIENT

Besides to operating as a server, the programmable logic controller PLC20X also allows operation as a Modbus TCP network client.

The sending and reception of telegrams via the Ethernet interface using the Modbus TCP 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 PLC20X, the following functions are available for sending requests via the Modbus TCP 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 TCP communication using the programmable logic controller PLC20X, the following blocks were developed, which must be used during ladder programming.

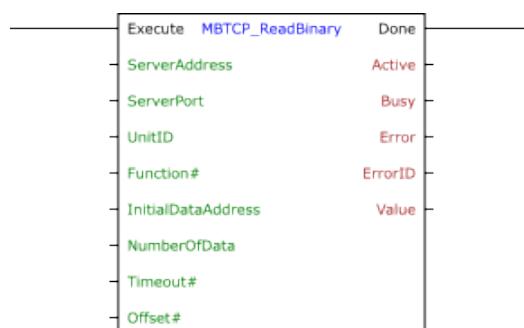


NOTE!

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

6.1.1 MB TCP Read Binary – Reading bits

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.

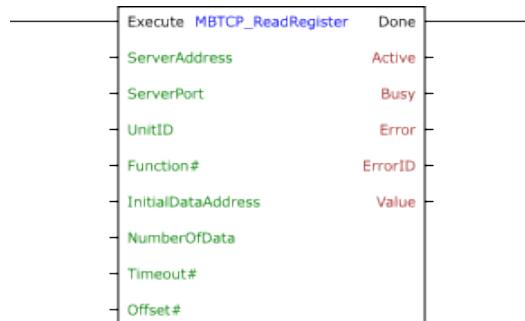


It has an enabling input of the “Execute” block and a “Done” output, which is activated after the end of the successful execution of the function. After the positive transition of “Execute”, a new telegram is sent by the Modbus TCP client when the client connection is free. At the successful end of the 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”.

OPERATION IN THE MODBUS TCP NETWORK – CLIENT

6.1.2 MB TCP Read Register – Reading registers

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 TCP client when the connection 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”.

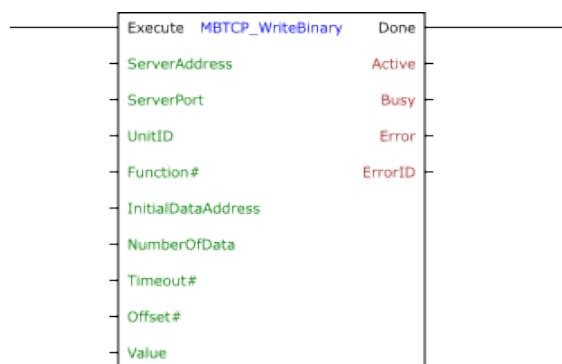


NOTE!

- 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 TCP Write Binary – Writing bits

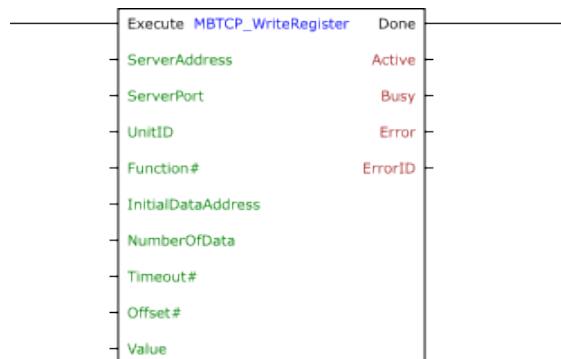
Block for writing bits. It allows to write up to 128 bits using functions 5 (Write Single Coil) and 15 (Write Multiple Coils) of the Modbus.



It has 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 TCP client when the connection 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 TCP Write Register – Writing registers

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 TCP client when the connection 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”.

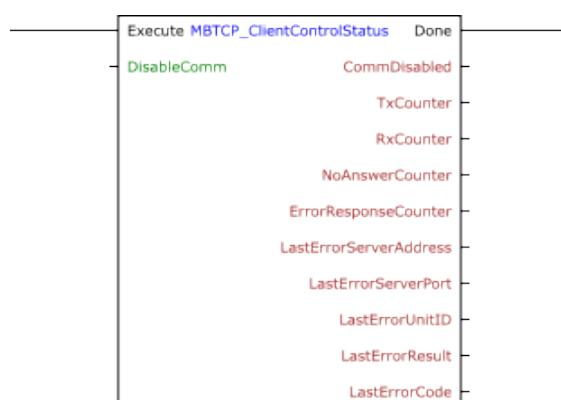


NOTE!

- 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 TCP Client Control/Status – Control and status the Modbus TCP

Block to control and monitor the Modbus TCP client. Whenever the Modbus TCP network is assembled with the PLC20X 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.

OPERATION IN THE MODBUS TCP NETWORK – CLIENT

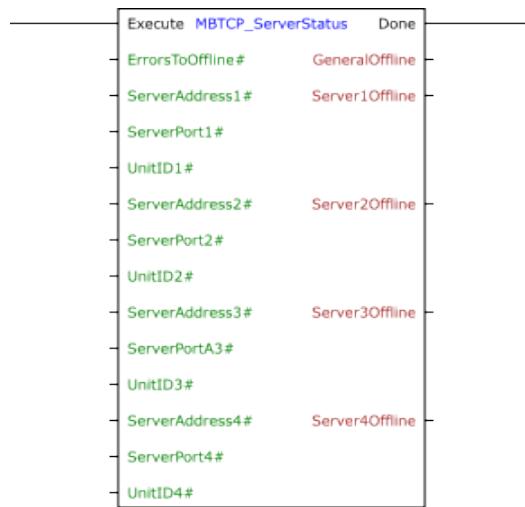


NOTE!

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

6.1.6 MB TCP Server Status – Server status the network Modbus TCP

Block to monitor the servers in the Modbus TCP 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 TCP 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 OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

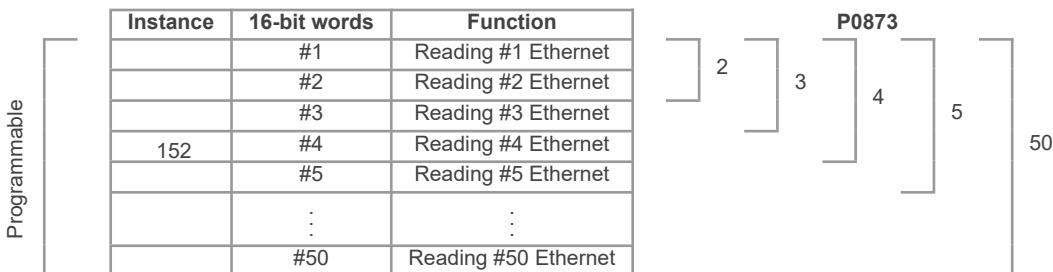
7.1 I/O INSTANCES

The bits of each instance of the Assembly class are described below, with the mappings of control words and PLC20X state.

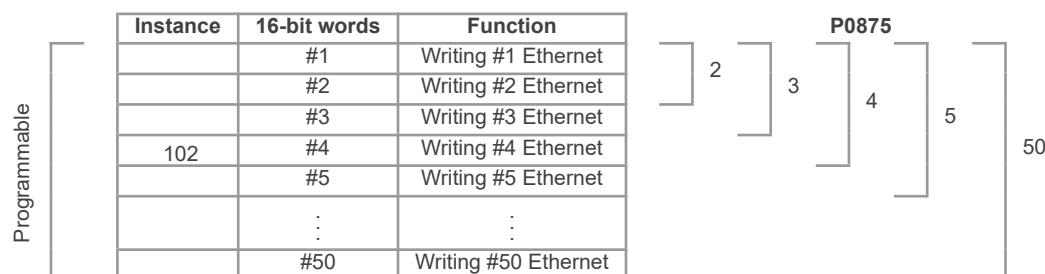
P0871 = 10, 102/152 CIP Configurable I/O data (up to 50 words):

This instance is completely open and allows the user to program any equipment parameter up to the limit of 50 reading words (P0873) and/or 50 writing words (P0875).

Status (Input)



Control (Output)



7.2 CYCLIC DATA

Cyclic data is the data normally used for status monitoring and equipment control. For EtherNet/IP protocol, the interface supports an I/O connection as configured through instances of the Assembly class available for the product.

The instances of the Assembly class are used to configure the I/O data communicated with the scanner of EtherNet/IP network. According to the selected profile, it is possible to define the format, size and content of the I/O data.

It is necessary the configuration to be made both at the adapter and scanner, i.e., the same amount of input words and output words must be set in the programmable logic controller PLC20X and in the scanner.

7.2.1 Input words

The PLC20X programmable logic controller has a reading area with 50 16-bit words available for cyclic data exchange of communication networks. The data available in the reading area (input) is sent to the network scanner. This area is shared by all communication protocols.

To map an object in the reading area, follow the steps below.

1. Configure on parameter P0873 the quantity of input words which must be transmitted via network.
2. Parameters P15000 up to P15049 enable to configure the data that must be provided on the reading words. Those parameters must contain the network addresses (Net Id) of the data that must be transmitted on

OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

the respective reading words. The Net Id list is available in the [Section 13 QUICK REFERENCES on page 13-1](#). Consider the size of each parameter mentioned in this list when programming each word.



NOTE!

- To correctly adjust the word configuration parameters (P15000 up to P15049), the size of the mapped data must be taken into account.
- If the mapped data is a data type with more than 16 bits, the network address (Net Id) of the data must also be programmed in the next words, until the number of defined words is completed.
- If the data is of a data type smaller than 16 bits, it will occupy an entire 16-bit word.

Example

The example below presents a configuration for EtherNet/IP considering the following parameters to be mapped:

- P1100 Slot 1 - Digital Inputs (DIs).
- P1200 Slot 2 - Digital Inputs (DIs).

Searching for parameter information on the [Section 13 QUICK REFERENCES on page 13-1](#):

Mapped Parameter	Net Id	Size	Qty Mapped Words
Slot 1 - Digital Inputs (DIs)	1100	32bit	2
Slot 2 - Digital Inputs (DIs)	1200	32bit	2

Therefore, the configuration must be performed as shown below:

1. P0873 Readings Quantity = 4 → sum of column “Qty mapped words”.
2. The [Table 7.1 on page 7-2](#) presents the configuration parameters of the words and the content of the reading words.

Table 7.1: Example of reading words configuration.

Configuration Parameter	Mapped Parameter	Net Id
P15000 Read Word #1	P1100	1100
P15001 Read Word #2	P1100	1100
P15002 Read Word #3	P1200	1200
P15003 Read Word #4	P1200	1200



NOTE!

- Mapping of invalid parameters or not available will return zero value.
- The data is transmitted as an integer value, without the indication of the decimal places.
- To obtain the network address (Net Id) of the parameters and the number of decimal places, refer to the [Section 13 QUICK REFERENCES on page 13-1](#).

7.2.2 Output Words

The PLC20X programmable logic controller has a writing area with 50 16-bit words available for cyclic data exchange of communication networks. The data available in the write area (output) is received from the network scanner. This area is shared by all communication protocols.

To map an object in the writing area, follow the steps below.

1. Configure on parameter P0875 the quantity of writing words which must be transmitted via network.

2. Parameters P15250 up to P15299 enable to configure the data that must be provided on the writing words. Those parameters must contain the network address (Net Id) of the data that must be transmitted on the respective writing words. The Net Id list is available on the [Section 13 QUICK REFERENCES on page 13-1](#).
1. Consider the size of each parameter mentioned in list when programming each word.

To correctly adjust the word configuration parameters (P15250 up to P15299), the size of the mapped data must be taken into account.

If the mapped data is a data type with more than 16 bits, the network address (Net Id) of the data must also be programmed in the next words, until the number of defined words is completed.

If the data is of a data type smaller than 16 bits, it will occupy an entire 16-bit word.

Example

The example below presents a configuration for EtherNet/IP considering the following parameters to be mapped:

- P1102 Slot 1 - Digital Outputs (DOs).
- P1202 Slot 2 - Digital Outputs (DOs).

Searching parameter information in the [Section 13 QUICK REFERENCES on page 13-1](#):

Mapped Parameter	Net Id	Size	Qty Mapped Words
Slot 1 - Digital Outputs (DOs)	1102	32bit	2
Slot 2 - Digital Outputs (DOs)	1202	32bit	2

herefore, the configuration must be performed as shown below:

1. P0875 Writings Quantity = 4 → sum of column “Qty mapped words”.
2. The [Table 7.2 on page 7-3](#) presents the configuration parameters of the words and the content of the writing words.

Table 7.2: Example of configuration of the writing words.

Configuration Parameter	Mapped Parameter	Net Id
P15250 Write Word #1	P1102	1102
P15251 Write Word #2	P1102	1102
P15252 Write Word #3	P1202	1202
P15253 Write Word #4	P1202	1202

NOTE!

- Mapping of readonly parameters (status, diagnostics) or invalid parameters will have no effect.
- The parameters written using these words are not saved in non-volatile memory. Thus, if the equipment is turned off and back on, these parameters will return to their original value.
- The data is transmitted as an integer value, without the indication of the decimal places.
- To obtain the network address (Net Id) of the parameters, refer to the [Section 13 QUICK REFERENCES on page 13-1](#).

7.3 ACYCLIC DATA

In addition to the cyclic data, the interface also provides acyclic data via *explicit messaging*. Using this type of communication, you can access any equipment parameter. Access to this type of data is commonly done using

OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

instructions for reading or writing data, which should indicate the class, instance and attribute to the desired parameter. The [Table 7.24 on page 7-9](#) describes how to address the parameters for the programmable logic controller PLC20X.

7.4 EDS FILE

Each device on an EtherNet/IP network has an EDS configuration file, which contains information about the device functions on the network. This file is used by a scanner or configuration software to program devices present at EtherNet/IP network.

The EDS file is available from WEG website (<http://www.weg.net>). It is important to note if the EDS configuration file is compatible with the firmware version of the programmable logic controller PLC20X.

7.5 SUPPORTED OBJECT CLASSES

Every EtherNet/IP equipment is modeled as a set of objects. The objects are responsible for defining the function that each device will have.

The following sections present detailed information about these object classes.

7.5.1 Identity Class (01h)

This class provides general information about the device identity such as VendorID, Product Name, Serial Number, etc.. The following attributes are implemented:

Table 7.3: Identity Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the Identity Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.4: Identity Class instance attributes (Instance #1)

Attribute	Method	Name	Default	Description
1	GET	Vendor ID	355h	Manufacturer identifier.
2	GET	Device Type	2Bh	Product Type.
3	GET	Product Code	2100h	Product Code.
4	GET	Revision	-	Firmware revision.
5	GET	Status	-	Device status.
6	GET	Serial Number	-	Serial Number.
7	GET	Product Name	PLC20X	Product name.

7.5.2 Message Router Class (02h)

This class provides information on the explicit message router object. The following attributes are implemented:

OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

Table 7.5: Message Router Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the Message Router Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
4	GET	Opcional Attribute List	1 - 65535	List of optional attributes used.
5	GET	Opcional Service List	1 - 65535	List of optional services used.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.6: Message Router Class instance attributes (Instance #1)

Attribute	Method	Name	Default	Description
1	GET	Object List	-	List of supported objects.
2	GET	Number Available	-	Maximum number of connections supported.
3	GET	Number Active	-	Number of active connections.

7.5.3 Assembly Class (04h)

This class is responsible for grouping several attributes in only one connection. The following attributes are implemented:

Table 7.7: Assembly Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the Assembly Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
4	GET	Opcional Attribute List	1 - 65535	List of optional attributes used.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.8: Assembly Class instance attributes (Instance #1)

Atribute	Method	Name	Description
3	GET	Data	Instance data.
4	GET	Size	Number of bytes of Data.

The Assembly class contains the following instances in the PLC20X:

Table 7.9: Assembly class instances

Output instance	Input instance	Size	Description
102	152	up to 100 bytes	Consuming and Producing Instances.

7.5.4 Connection Manager Class (06h)

This class allocates and manages the internal resources associated with both I/O and Explicit Messaging Connections.

OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

Table 7.10: Connection Manager Class attributes (Instance #0)

Attribute	Method	Name	min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the Connection Manager Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
4	GET	Opcional Attribute List	1 - 65535	List of optional attributes used.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.11: Connection Manager Class instance attributes (Instance #1)

Atribute	Method	Name	Description
1	GET	Open Requests	Number of Forward_Open service requests received.
2	GET	Open Format Rejects	Number of Forward_Open service requests which were rejected due to bad format.
3	GET	Open Resource Rejects	Number of Forward_Open service requests which were rejected due to lack of resources.
4	GET	Open Other Rejects	Number of Forward_Open service requests which were rejected for reasons other than bad format or lack of resources.
5	GET	Close Requests	Number of Forward_Close service requests received.
6	GET	Close Format Requests	Number of Forward_Close service requests which were rejected due to bad format.
7	GET	Close Other Requests	Number of Forward_Close service requests which were rejected for reasons other than bad format.
8	GET	Connection Timeouts	Total number of connection timeouts.

7.5.5 QoS Class (48h)

This class provides a means to configure Quality of Service (QoS) on EtherNet/IP devices. The following attributes have been implemented:

Table 7.12: QoS Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the QoS Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.13: QoS Class instance attributes (Instance #1)

Attribute	Method	Name	Min/Max	Default	Description
4	SET	DSCP Urgent	0 - 63	55	CIP transport class 1 messages with priority Urgent.
5	SET	DSCP Scheduled	0 - 63	47	CIP transport class 1 messages with priority Scheduled.
6	SET	DSCP High	0 - 63	43	CIP transport class 1 messages with priority High.
7	SET	DSCP Low	0 - 63	31	CIP transport class 1 messages with priority Low.
8	SET	DSCP Explicit	0 - 63	27	CIP UCMM and CIP class 3.

7.5.6 SNMP Class (52h)

This class provides a means to configure of the SNMP Agent in the device. The following attributes have been implemented:

OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

Table 7.14: SNMP Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the SNMP Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.15: SNMP Class instance attributes (Instance #1)

Attribute	Method	Name	Min/Max	Default	Description
1	GET/SET	SnmpAgent	0 - 1	1	0 = Disabled. 1 = Enabled.
2	GET	SnmpAgentVersion	1 - 31	1	1 = SNMPv1. 3 = SNMPv3. 31 = SNMPv1+v3.
3	GET/SET	PrimaryNetworkManagementIdentifier	-	0.0.0	Primary SNMP manager IP address.
4	GET/SET	SecondaryNetworkManagementIdentifier	-	0.0.0	Secondary SNMP manager IP address.
5	GET/SET	Notifications	0 - 1	1	0 = Disabled. 1 = Enabled.
6	GET	TrapType	1 - 2	1	1 = TrapV1Pdu. 2 = TrapV2Pdu.

7.5.7 Port Class (F4h)

This class describes the communication interfaces that are present on the device and visible to CIP.

Table 7.16: Port Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the Port Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.
8	GET	Entry Port	1 - 65535	Returns the instance of the Port Object that describes the port through which this request entered the device.
9	GET	Port Instance Info	1 - 65535	Informations of the attributes each instance.

Table 7.17: Port Class instance attributes (Instance #1)

Attribute	Method	Name	Default	Description
1	GET	Port Type	-	Type of port.
2	GET	Port Number	-	CIP port number associated with this port.
3	GET	Logical Link Object	-	-
4	GET	Port Name	-	String which names the communications interface.
5	GET	Node Address	-	-
6	GET	Port Routing Capabilities	-	-

7.5.8 TCP/IP Interface Class (F5h)

This class provides the mechanism to configure a device's TCP/IP network interface. The following attributes have been implemented:

OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

Table 7.18: TCP/IP Interface Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the TCP/IP Interface Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
4	GET	Opcional Attribute List	1 - 65535	List of optional attributes used.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.19: TCP/IP Interface Class instance attributes (Instance #1)

Attribute	Method	Name	Min/Max	Default	Description
1	GET	Status	-	-	Indicates the status of the TCP/IP network interface.
2	GET	Configuration Capability	-	-	Indicates the device's support for optional network configuration capability.
3	GET/SET	Configuration Control	-	-	Control network configuration options.
4	GET	Physical Link Object	-	-	Identifies the object associated with the underlying physical communications interface (e.g., an 802.3 interface).
5	GET/SET	Interface Configuration	-	-	Contains the configuration parameters required for a device to operate as a TCP/IP node.
6	GET/SET	Host Name	-	-	Contains the device's host name, which can be used for informational purposes.
13	GET	Encapsulation Inactivity Timeout	-	-	Used to enable TCP socket cleanup (closing) when the defined number of seconds have elapsed with no Encapsulation activity.

7.5.9 Ethernet Link Class (F6h)

This class maintains link-specific counters and status information for an IEEE802.3 communications interface. The following attributes have been implemented:

Table 7.20: Ethernet Link Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the Ethernet Link Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
4	GET	Opcional Attribute List	1 - 65535	List of optional attributes used.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.21: Ethernet Link Class instance attributes (Instance #1)

Attribute	Method	Name	Min/Max	Default	Description
1	GET	Interface Speed	-	-	Indicate the speed at which the interface is currently running (e.g., 10 Mbps, 100 Mbps, 1 Gbps, etc.).
2	GET	Interface Flags	-	-	Contains status and configuration information about the physical interface.
3	GET	Physical Address	-	-	Contains the interface's MAC address.
11	GET	Interface Capability	-	-	Indicate the set of capabilities for the interface.

7.5.10 LLDP Management Class (109h)

This class contains information for the LLDP protocol for the EtherNet/IP. The following attributes have been implemented:

Table 7.22: LLDP Management Class attributes (Instance #0)

Attribute	Method	Name	Min/Max	Description
1	GET	Revision	1 - 65535	Revision of the definition of the LLDP Management Class Object upon which the implementation was based.
2	GET	Max Instance	1 - 65535	Maximum number of instances.
3	GET	Number of Instances	1 - 65535	Number of ports instantiated.
6	GET	Max Number Class Attributes	1 - 65535	Number of the last implemented class attribute on the device.
7	GET	Max Number Instance Attributes	1 - 65535	Number of the last implemented instance attribute on the device.

Table 7.23: LLDP Class instance attributes (Instance #1)

Attribute	Method	Name	Min/Max	Default	Description
1	GET/SET	LLDP Enable	0 - 1	1	Enabled or disabled the transmission of LLDP telegrams.
2	GET/SET	msgTxInterval	1 - 3600	30	Message Transmission Interval for LLDP frames.
3	GET/SET	msgTxHold	1 - 100	4	Message Transmission Multiplier for LLDP frames.
4	GET	LLDP Datastore	-	2	Bit: 1 = LLDP Data Table Object 2 = SNMP 3 = NETCONF YANG 4 = RESTCONF YANG 4-15 = Reserved
5	GET	Last Change	-	-	Time in seconds since the last time an entry in the LLDP database was changed.

7.5.11 Manufacturer Specific Class (64h)

For PLC20X programmable logic controller, the manufacturer specific classes are used for mapping all device parameters. These classes allow the user to read from and write to any parameter through the network. For this, EtherNet/IP CIP Class 3 messages or Unconnected Explicit messages can be used.

PLC20X uses class 100 for parameter access, and the parameter number is defined according to instance and attribute, as shown in [Table 7.24 on page 7-9](#):

Table 7.24: Manufacturer Specific Class

Class	Instance	Attributes	Accessed Parameters
Classe 100 (64h) (Vendor Specific)	1	100 ... 199	Parameters with Net ID 0 - 99
Classe 100 (64h) (Vendor Specific)	2	100 ... 199	Parameters with Net ID 100 - 199
Classe 100 (64h) (Vendor Specific)	3	100 ... 199	Parameters with Net ID 200 - 299
Classe 100 (64h) (Vendor Specific)	4	100 ... 199	Parameters with Net ID 300 - 399
Classe 100 (64h) (Vendor Specific)	5	100 ... 199	Parameters with Net ID 400 - 499
Classe 100 (64h) (Vendor Specific)	6	100 ... 199	Parameters with Net ID 500 - 599
	⋮	⋮	⋮
Classe 100 (64h) (Vendor Specific)	10	100 ... 199	Parameters with Net ID 900 - 999
Classe 100 (64h) (Vendor Specific)	11	100 ... 199	Parameters with Net ID 1000 - 1099
	⋮	⋮	⋮

For this list, status and diagnostics objects typically allow read-only access, while configuration objects allow read/write access:

- For read access (Get Attribute Single), the request must contain 1 byte with the size in bytes of the data read.

OPERATION IN THE ETHERNET/IP NETWORK - ADAPTER

- For write access (Set Attribute Single), the request must contain the number of bytes written according to the size of the data accessed.

Examples:

- Parameter 23: class 64h, instance 1, attribute 123. This path gives access to P0023.
- Parameter 100: class 64h, instance 2, attribute 100. This path gives access to P0100.
- Parameter 202: class 64h, instance 3, attribute 102. This path gives access to P0202.



NOTE!

- Invalid or unavailable parameter mapping return zero value.
- The data is transmitted as an integer value, without the indication of the decimal places.

8 STARTUP GUIDE - MODBUS TCP

The main steps to start up the PLC20X programmable logic controller in Modbus TCP network are described below. These steps represent an example of use. Check out the specific chapters for details on the indicated steps.

8.1 INSTALLING THE ACCESSORY

1. Connect the cables, considering the recommended instructions in network installation, as described in [Section 3 ETHERNET NETWORK INSTALLATION on page 3-1](#):
 - Use shielded cable.
 - Properly ground network equipment.
 - Avoid laying communication cables next to power cables.

8.2 CONFIGURING THE EQUIPMENT

1. Follow the recommendations described in the user manual to program equipment adjustment parameters, related to I/O signals, etc.
2. Configure communication parameters, such as DHCP, IP address, communication rate, etc. (P0850 ... P0856).
3. Configure the timeout for the Modbus TCP communication in P0868.
4. Program the desired action for the equipment in case of communication fault in P0624.
5. Define which data will be read and written at programmable logic controller PLC20X, based on its parameter list. It is not necessary to define I/O words. The Modbus TCP 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 (DI). (read).
 - P1200 Slot 2 - Digital Inputs (DI). (read).
 - P1102 Slot 1 - Digital Outputs (DO). (write).
 - P1202 Slot 2 - Digital Outputs (DO). (write).

8.3 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 number, as shown in [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 P0868.

8.4 COMMUNICATION STATUS

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

- The ETH and Link LEDs provide information about the status of the interface and communication.
- The parameter P0860 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.

9 STARTUP GUIDE - ETHERNET/IP

The main steps to start up the PLC20X programmable logic controller in EtherNet/IP network are described below. These steps represent an example of use. Check out the specific chapters for details on the indicated steps.

9.1 INSTALLING THE ACCESSORY

1. Connect the cables, considering the recommended instructions in network installation, as described in [Section 3 ETHERNET NETWORK INSTALLATION on page 3-1](#):
 - Use shielded cable.
 - Properly ground network equipment.
 - Avoid laying communication cables next to power cables.

9.2 CONFIGURING THE EQUIPMENT

1. Follow the recommendations described in the user manual to program equipment adjustment parameters, related to I/O signals, etc.
2. Configure communication parameters, such as DHCP, IP address, communication rate, etc. (P0850 ... P0856).
3. Program the desired action for the equipment in case of communication fault in P0624.
4. Define which I/O instance is used through the parameter P0871.
5. Define the amount of I/O, in the parameters P0873 and P0875.
6. Define additional read/write I/O data in parameters P15000 ... P15049 and P15250 ... P15299.

9.3 CONFIGURING THE SCANNER

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. Load the EDS file¹ to the list of devices in the network configuration tool.
2. Select PLC20X programmable logic controller from the available list of devices on the network configuration tool. This can be done manually or automatically, if allowed by the tool.
3. For the scanner configuration, in addition to the IP address used by the EtherNet/IP module, you must indicate the number of instances of I/O and the amount of data exchanged with the scanner in each instance. For the communication module for EtherNet/IP, the following values must be programmed:
 - Input instances: 152, according to the value of P0871. The number of words read by the network scanner also depends on the programming of parameter P0873.
 - Output Instance: 102, according to the value of P0871. The number of words written by the network scanner also depends on the programming of parameter P0875.

Once configured, the LED ETH will be on in green. It is in this condition that cyclic data exchange effectively occurs between the adapter and the scanner of the network.

¹The EDS file is available from WEG website (<http://www.weg.net>). It is important to note if the EDS configuration file is compatible with the firmware version of the PLC20X programmable logic controller.

9.4 COMMUNICATION STATUS

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

- The ETH and Link LEDs provide information about the status of the interface and communication.
- The parameter P0870 indicates the status of communication between the device and the network scanner.
- The parameter P0869 indicates if network scanner is in *IDLE* or *RUN* mode.

The scanner of the network must also supply information about the communication with the adapter.

9.5 OPERATION USING PROCESS DATA

Once the communication is established, the data mapped in the I/O area is automatically updated between scanner and adapter. Among the main parameters that can be used to control the device, we can mention:

- P1100 Slot 1 - Digital Inputs (DI). (read).
- P1200 Slot 2 - Digital Inputs (DI). (read).
- P1102 Slot 1 - Digital Outputs (DO). (write).
- P1202 Slot 2 - Digital Outputs (DO). (write).

It is important to know these parameters to program the scanner as desired for the application.

9.6 ACCESS TO PARAMETERS – ACYCLIC MESSAGES

Besides the I/O data (cyclic) communication, the EtherNet/IP protocol also defines a kind of acyclic telegram (*explicit messages*), used especially in asynchronous tasks, such as parameter setting and configuration of the equipment.

The [Section 7.3 ACYCLIC DATA on page 7-3](#) describes how to address the parameters of the programmable logic controller PLC20X via acyclic messages.

10 WEB SERVER

The PLC20X programmable logic controller provides a WEB server for accessing equipment information. It is possible to use a WEB browser by typing the IP address in the browser's address bar, and a page with the equipment data will be displayed.

PLC200

Firmware version:	V1.01.04
MAC address:	38:31:AC:12:34:56
IP address:	192.168.0.10
HTML revision:	R0

Figure 10.1: WEB Page



NOTE!

For security reasons, access to the WEB server is disabled by default and it can be enabled using the parameter P0798.

11 SNTP CLIENT

The SNTP is a protocol used to synchronize clocks in a network. Devices can synchronize the date and time through one or more servers.

The programmable logic controller PLC20X has a built-in SNTP client and uses this protocol to request date and time information from a server, and automatically change its settings. The SNTP server sends the date and time in UTC (Universal Time Coordinated) format and the current local time must be set according to the time zone.

You can configure the SNTP client of programmable logic controller PLC20X. The IP addresses of the primary and secondary server must be informed, as indicated in the parameters P0770 and P0774, to which PLC20X must connect to synchronize date and time information. The secondary server is used when the primary server is not accessible on the network. You can configure the time interval between updates, according to the parameter P0779.

**NOTE!**

If the primary server is 0.0.0.0 or the update interval is zero, the SNTP client is inactive.

The states of the primary and secondary servers are indicated in the parameter P0778 and the time of the last synchronization performed by the SNTP server, according to the parameter P0780.

**NOTE!**

The programmable logic controller PLC20X not getting a response from the primary or secondary servers, after 30 seconds of the first connection attempt will indicate the alarm A073.

12 QUICK REFERENCE OF ALARMS AND FAULTS

Fault / Alarm	Description	Possible Causes
F072/A072: Modbus TCP Timeout	<p>It indicates that the equipment stopped receiving valid telegrams for a period longer than the setting in P0868.</p> <p>The time counting starts after the first valid telegram is received.</p>	<ul style="list-style-type: none"> ■ Check the network installation, broken cable or poor contact on the connections with the network, grounding. ■ Ensure that the Modbus TCP client always sends telegrams to the equipment in a shorter time than the set in P0868. ■ Disable the timeout function in P0868 = 0.0s.
A073: SNTP Connection Timeout	<p>It indicates that the equipment tried to connect to the NTP server and got no response.</p> <p>It occurs after starting connection with the NTP server and the server has not returned the response requested by the equipment.</p>	<ul style="list-style-type: none"> ■ Check the configuration and IP address. ■ Check if the NTP server is active.
F075/A075: Scanner in Idle	<p>It actuates when communicating with the network scanner in Run mode, and transition to Idle mode is detected.</p>	<ul style="list-style-type: none"> - Set the switch that controls the scanner operation mode to Run or the corresponding bit on the configuration word of the scanner software. For further explanations, see the documentation of the scanner in use.
F076/A076: EtherNet/IP Communication Offline	<p>It indicates communication error with EtherNet/IP scanner.</p> <p>It occurs when, for any reason, after the cyclic communication of the scanner with the product is started, this communication is interrupted. This is detected if the I/O Exclusive Owner connection times out.</p>	<ul style="list-style-type: none"> ■ Check the status of the network scanner. ■ Check network installation, broken cable or failed/poor contact on the network connections.

13 QUICK REFERENCES

Table 13.1: Parameters quick reference

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	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	64h	05h	65h	1
P0402	Models (Slots) - 1 ... 8	5 = MOD3.00 - 8 AOV 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	64h	05h	66h	1
P0500	Firmware Version of the Product.	0.0 to 99.9999	-	ro, 32bit	4	500	64h	06h	64h	2
P0502	Firmware Version (Slots) - 1 ... 8	0.0 to 19.99	-	ro, 16bit	2	502	64h	06h	66h	1
P0540	Bootloader Version	20.0 to 60.0	-	ro, 32bit	4	540	64h	06h	8Ch	2
P0560	Product Serial Number	0 to 4294967295	-	ro, 32bit	0	560	64h	06h	A0h	2
P0400	Number of Slots	0 to 255	-	ro, 8bit	0	400	64h	05h	64h	1
Product - Status - Communication										
Product - Status - Communication - Serial RS485										
P0095	Modbus RTU Program Status	0 = Modbus RTU Client Enabled	-	ro, enum	0	95	64h	01h	C3h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = Modbus RTU Client Disabled								
P0625	RS485 - Interface Status	0 = Inactive 1 = Active 2 = Timeout Error	-	ro, enum	0	625	64h	07h	7Dh	1
P0626	RS485 - Received Telegrams	0 to 65535	-	ro, 16bit	0	626	64h	07h	7Eh	1
P0627	RS485 - Transmitted Telegrams	0 to 65535	-	ro, 16bit	0	627	64h	07h	7Fh	1
P0628	RS485 - Telegrams with Error	0 to 65535	-	ro, 16bit	0	628	64h	07h	80h	1
P0629	RS485 - Reception Errors	0 to 65535	-	ro, 16bit	0	629	64h	07h	81h	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	64h	09h	92h	2
P0889	ETH - Interface Status	Bit 0 = Link 1 Bit 1 = Link 2 Bit 2 ... 7 = Reserved	-	ro, 16bit	0	889	64h	09h	BDh	1
P0891	ETH - MAC Address	00:00:00:00:00:00 to FF:FF:FF:FF:FF:FF	-	ro, mac addr	0	891	64h	09h	BFh	3
Product - Status - Communication - EtherNet/IP										
P0869	EIP - Scanner Status	0 = Run 1 = Idle	-	ro, enum	0	869	64h	09h	A9h	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	64h	09h	AAh	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	64h	01h	C5h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P0860	MBTCP - Communication Status	0 = Inactive 1 = No connection 2 = Connected 3 = Timeout Error	-	ro, enum	0	860	64h	09h	A0h	1
P0861	MBTCP - Received Telegrams	0 to 65535	-	ro, 16bit	0	861	64h	09h	A1h	1
P0862	MBTCP - Transmitted Telegrams	0 to 65535	-	ro, 16bit	0	862	64h	09h	A2h	1
P0863	MBTCP - Active Connections	0 to 4	-	ro, 8bit	0	863	64h	09h	A3h	1
Product - Status - Communication - MQTT										
P0841	MQTT - Status	0 = Inactive 1 = No Connection 2 = Connected (Pub) 3 = Connected (Pub/Sub) 4 = Connection fail	-	ro, enum	0	841	64h	09h	8Dh	1
P0842	Last Public. MQTT	0 to 65535	-	ro, 16bit	0	842	64h	09h	8Eh	1
Product - Status - Communication - SNTP										
P0778	SNTP - Status	0 = Inactive 1 = No Connection 2 = Connected	-	ro, enum	0	778	64h	08h	B2h	1
P0780	SNTP - Last Update	0 to 4294967295	-	ro, date and time epoch	0	780	64h	08h	B4h	2
Product - Status - Communication - CAN										
P0605	CAN - Controller Status	0 = Inactive 1 = Auto-baud 2 = CAN Active 3 = Warning 4 = Passive Error 5 = Bus Off	-	ro, enum	0	605	64h	07h	69h	1
P0606	CAN - CAN RX Telegrams	0 to 65535	-	ro, 16bit	0	606	64h	07h	6Ah	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P0607	CAN - CAN TX Telegrams	0 to 65535	-	ro, 16bit	0	607	64h	07h	6Bh	1
P0608	CAN - Bus Off Counter	0 to 65535	-	ro, 16bit	0	608	64h	07h	6Ch	1
P0609	CAN - Lost Telegrams	0 to 65535	-	ro, 16bit	0	609	64h	07h	6Dh	1
P0610	CAN - CANopen Communication Status	0 = Inactive 1 = Not used 2 = Comm. Enabled 3 = Error Ctrl. Enab. 4 = Guarding Error 5 = Heartbeat Error	-	ro, enum	0	610	64h	07h	6Eh	1
P0611	CAN - CANopen Node Status	0 = Inactive 1 = Initialization 2 = Stopped 3 = Operational 4 = PreOperational	-	ro, enum	0	611	64h	07h	6Fh	1
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	64h	0Ah	64h	2
P0950	Counter Value - 1 ... 4	-2147483648 to 2147483647	-	ro, s32bit	0	950	64h	0Ah	96h	2
P0970	Counter Direction - 1 ... 4	0 = Count up 1 = Countdown	-	ro, enum	0	970	64h	0Ah	AAh	1
Product - Status - Errors and Faults										
P0100	Last 5 faults - 1 ... 5	0 = NO ERROR	-	ro, enum	0	100	64h	02h	64h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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 28 = SLOT 8 IDENTIFICATION ERROR 29 ... 30 = INTERNAL ERROR 31 = SLOT 1 INTRABUS TIMEOUT 32 = SLOT 2 INTRABUS TIMEOUT								

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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 54 = SLOT 4 INTRABUS COMMAND ERROR 55 = SLOT 5 INTRABUS COMMAND ERROR 56 = SLOT 6 INTRABUS COMMAND ERROR 57 = SLOT 7 INTRABUS COMMAND ERROR								

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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 21 = SLOT 1 IDENTIFICATION ERROR 22 = SLOT 2 IDENTIFICATION ERROR 23 = SLOT 3 IDENTIFICATION ERROR 24 = SLOT 4 IDENTIFICATION ERROR	-	ro, enum	0	105	64h	02h	69h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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 46 = SLOT 6 INTRABUS CRC ERROR 47 = SLOT 7 INTRABUS CRC ERROR 48 = SLOT 8 INTRABUS CRC ERROR 49 ... 50 = INTERNAL ERROR								

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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	64h	01h	C7h	1
Product - Status - Program - Counter/Scan Cycle										
P0700	Counter 100us	0 to 4294967295	-	ro, 32bit	0	700	64h	08h	64h	2
P0702	Scan Cycle	0.0 to 6553.5 ms	-	ro, 16bit	1	702	64h	08h	66h	1
P0703	Minimum Scan Cycle	0.0 to 6553.5 ms	-	ro, 16bit	1	703	64h	08h	67h	1
P0704	Maximum Scan Cycle	0.0 to 6553.5 ms	-	ro, 16bit	1	704	64h	08h	68h	1
Product - Status - Watchdog										

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P0050	System watchdog: Code	0 to 65535	-	ro, 32bit	0	50	64h	01h	96h	2
P0052	Watchdog - Data - 1 ... 17	0 to 4294967295	-	ro, 32bit	0	52	64h	01h	98h	2
P0086	Watchdog - Date/Time	0 to 4294967295	-	ro, date and time epoch	0	86	64h	01h	BAh	2
Product - Status - Date and time										
P0192	Date/Hour	0 to 4294967295	-	ro, date and time epoch	0	192	64h	02h	C0h	2
Product - Configuration										
Product - Configuration - Communication										
Product - Configuration - Communication - Communication Errors										
P0624	Action for Communication Error	0 = Alarm 1 = Fault	0	rw, enum	0	624	64h	07h	7Ch	1
Product - Configuration - Communication - I/O Data										
P0873	Readings Quantity	1 to 50	2	rw, 8bit	0	873	64h	09h	ADh	1
P15000	Read Word - 1 ... 50	0 to 65535	0	rw, 16bit	0	15000	64h	97h	64h	1
P0875	Writings Quantity	1 to 50	2	rw, 8bit	0	875	64h	09h	AFh	1
P15250	Write Word - 1 ... 50	0 to 65535	0	rw, 16bit	0	15250	64h	99h	96h	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	64h	01h	C2h	1
P0617	RS485 - Gateway Modbus TCP/RTU Timeout	1 to 65535	200	rw, 16bit	0	617	64h	07h	75h	1
P0618	Termination resistor	0 = Not connected 1 = Connected	0	rw, enum	0	618	64h	07h	76h	1
P0619	RS485 - Protocol	0 = Not used 1 = Modbus RTU Client 2 = Modbus RTU	1	rw, enum	0	619	64h	07h	77h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P0620	RS485 - Address	1 to 247	1	rw, 8bit	0	620	64h	07h	78h	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	64h	07h	79h	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	64h	07h	7Ah	1
P0623	RS485 - Timeout	0.0 to 999.0 s	0.0 s	rw, 16bit	1	623	64h	07h	7Bh	1
P0624	Action for Communication Error	0 = Alarm 1 = Fault	0	rw, enum	0	624	64h	07h	7Ch	1
Product - Configuration - Communication - Ethernet										
P0798	ETH - Enable protocols	Bit 0 = Web Server	0	rw, 16bit	0	798	64h	08h	C6h	1
P0850	ETH - IP Address Settings	0 = Static IP 1 = DHCP	0	rw, enum	0	850	64h	09h	96h	1
P0852	ETH - IP Address	0:0:0:0 to 255:255:255:255	192:168:1:10	rw, ip addr	0	852	64h	09h	98h	2
P0855	ETH - Network Mask	0 = Not used 1 = 128.0.0.0 2 = 192.0.0.0 3 = 224.0.0.0	24	rw, enum	0	855	64h	09h	9Bh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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 to 255:255:255:255	0:0:0:0	rw, ip addr	0	856	64h	09h	9Ch	2
P0890	ETH - Interface Control	Bit 0 = Auto Negotiate Link Bit 1 = Speed Link Bit 2 = Forced Duplex Link	9	rw, 16bit	0	890	64h	09h	B Eh	1
Product - Configuration - Communication - EtherNet/IP										
P0871	EIP - I/O instances	0 ... 9 = Not used 10 = 102/152 Config I/O data	10	rw, enum	0	871	64h	09h	ABh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P0096	Modbus TCP Program Command	0 = Enable Modbus TCP Client 1 = Disabl Modbus TCP Client	0	rw, enum	0	96	64h	01h	C4h	1
P0864	MBTCP - Connection Timeout	0 to 65535 s	65 s	rw, 16bit	0	864	64h	09h	A4h	1
P0865	MBTCP - TCP Port	0 to 65535	502	rw, 16bit	0	865	64h	09h	A5h	1
P0868	MBTCP - Timeout	0.0 to 999.0 s	0.0 s	rw, 16bit	1	868	64h	09h	A8h	1
Product - Configuration - Communication - MQTT										
P0844	MQTT - Enable/Disable	0 = Disable 1 = Enable 2 = Enable only publish	1	rw, enum	0	844	64h	09h	90h	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	64h	08h	AAh	2
P0774	SNTP - Server 2	0:0:0:0 to 255:255:255:255	0:0:0:0	rw, ip addr	0	774	64h	08h	A Eh	2
P0779	SNTP - Update Interval	0 to 65535	0	rw, 16bit	0	779	64h	08h	B3h	1
Product - Configuration - Communication - CAN										
P0600	CAN - Address	1 to 127	2	rw, 16bit	0	600	64h	07h	64h	1
P0601	CAN - Baud Rate	0 = 1 Mbit/s 1 = 800 Kbit/s 2 = 500 Kbit/s 3 = 250 Kbit/s 4 = 125 Kbit/s 5 = 100 Kbit/s 6 = 50 Kbit/s 7 = 20 Kbit/s	0	rw, enum	0	601	64h	07h	65h	1
P0602	CAN - Bus Off Reset	0 = Manual 1 = Automatic	0	rw, enum	0	602	64h	07h	66h	1
P0618	Termination resistor		0	rw, enum	0	618	64h	07h	76h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		0 = Not connected 1 = Connected								
P0624	Action for Communication Error	0 = Alarm 1 = Fault	0	rw, enum	0	624	64h	07h	7Ch	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	64h	0Ah	66h	2
P0904	Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	904	64h	0Ah	68h	2
P0906	Digital Outputs Error Value	0 to 4294967295	0	rw, 32bit	0	906	64h	0Ah	6Ah	2
P0908	Update I/Os in stop	Bit 0 = Select	0	rw, 16bit	0	908	64h	0Ah	6Ch	1
P0909	Output behavior in stop	0 = Force outputs to the default value 1 = Keep the actual values	0	rw, enum	0	909	64h	0Ah	6Dh	1
P0918	Enable step-motor control	Bit 0 = Step-motor 1 Bit 1 = Step-motor 2	0	rw, 16bit	0	918	64h	0Ah	76h	1
P0919	Step-motor - Reverses direction	Bit 0 = Step-motor 1 Bit 1 = Step-motor 2	0	rw, 16bit	0	919	64h	0Ah	77h	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	64h	0Ah	8Ch	1
P0941	Counter 2 / DI3 - DI4	0 = Digital Inputs	0	rw, enum	0	941	64h	0Ah	8Dh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = Quadrature 2 = Pulse and Direction 3 = Counter and digital input								
P0942	Counter 3 / DI5 - DI6	0 = Digital Inputs 1 = Quadrature 2 = Pulse and Direction 3 = Counter and digital input	0	rw, enum	0	942	64h	0Ah	8Eh	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	64h	0Ah	8Fh	1
P0948	Counter - Reverse direction	Bit 0 = Counter 1 Bit 1 = Counter 2 Bit 2 = Counter 3 Bit 3 = Counter 4	0	rw, 16bit	0	948	64h	0Ah	94h	1
P0979	Resets Counter	Bit 0 = Counter 1 Bit 1 = Counter 2 Bit 2 = Counter 3 Bit 3 = Counter 4	0	rw, 16bit	0	979	64h	0Ah	B3h	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	64h	03h	68h	1
Product - Configuration - Clear Errors										
P0200	Clear Errors	0 to 255	0	rw, 8bit	0	200	64h	03h	64h	1
Product - Configuration - Date and time										
P0194	Set Date/Time	0 to 4294967295	1704070861	rw, date and time epoch	0	194	64h	02h	C2h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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 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	24	rw, enum	0	196	64h	02h	C4h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words	
		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		0	rw, 16bit	0	190	64h	02h	BEh	1	
Product - User											
P0800	User Parameter - 1 ... 20	-2147483648 to 2147483647	0	rw, s32bit	0	800	64h	09h	64h	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	0	rw, 32bit	0	1102	64h	0Ch	66h	2	

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	20h	87h	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	64h	20h	8Eh	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit										
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	64h	20h	95h	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	64h	20h	9Ch	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	64h	20h	A3h	1
Slot 1 - Analog Input (AI, TH, RTD) - Configuration - Channel Gain										

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words		
P3170	Slot 1 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3170	64h	20h	AAh	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	64h	20h	B2h	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 analog input - 1 ... 7	-32768 to 32767	-	ro, s16bit	0	3100	64h	20h	64h	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 / rtd: Active 2 = ai: Open / th: Open / rtd: Open		-	ro, enum	0	3107	64h	20h	6Bh	1	
Slot 1 - Analog Output												
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	64h	34h	6Ch	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	64h	34h	74h	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	64h	34h	84h	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	64h	34h	8Ch	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	64h	34h	64h	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	rw, enum	0	7118	64h	48h	76h	1	

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = Active								
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	64h	48h	78h	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	64h	48h	7Ah	1
Slot 1 - Analog input (SG) - Configuration - Channel Gain										
P7124	Slot 1 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7124	64h	48h	7Ch	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	64h	48h	7Eh	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	64h	48h	82h	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	64h	48h	84h	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	64h	48h	86h	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	64h	48h	88h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	48h	8Ch	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	64h	48h	8Eh	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	64h	48h	90h	1
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	64h	48h	64h	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	64h	48h	66h	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	64h	48h	6Ah	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 (DI)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07	-	ro, 32bit	0	1100	64h	0Ch	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
P9102	Slot1 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9102	64h	5Ch	66h	1
Slot 1 - Starter manager (SCW) - Status - Starters										
P9110	Slot1 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9110	64h	5Ch	6Eh	1
P9111	Slot1 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9111	64h	5Ch	6Fh	1
P9112	Slot1 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9112	64h	5Ch	70h	1
P9113	Slot1 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9113	64h	5Ch	71h	1
P9114	Slot1 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9114	64h	5Ch	72h	1
P9115	Slot1 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9115	64h	5Ch	73h	1
P9116	Slot1 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9116	64h	5Ch	74h	1
P9117	Slot1 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9117	64h	5Ch	75h	1
P9118	Slot1 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9118	64h	5Ch	76h	1
P9119	Slot1 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9119	64h	5Ch	77h	1
P9120	Slot1 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9120	64h	5Ch	78h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9121	Slot1 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9121	64h	5Ch	79h	1
P9122	Slot1 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9122	64h	5Ch	7Ah	1
P9123	Slot1 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9123	64h	5Ch	7Bh	1
P9124	Slot1 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9124	64h	5Ch	7Ch	1
P9125	Slot1 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9125	64h	5Ch	7Dh	1
P9130	Slot1 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9130	64h	5Ch	82h	2
P9132	Slot1 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9132	64h	5Ch	84h	2
P9134	Slot1 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9134	64h	5Ch	86h	2
P9136	Slot1 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9136	64h	5Ch	88h	2
P9138	Slot1 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9138	64h	5Ch	8Ah	2
P9140	Slot1 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9140	64h	5Ch	8Ch	2
P9142	Slot1 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9142	64h	5Ch	8Eh	2
P9144	Slot1 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9144	64h	5Ch	90h	2
P9160	Slot1 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9160	64h	5Ch	A0h	1
P9161	Slot1 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9161	64h	5Ch	A1h	1
P9162	Slot1 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9162	64h	5Ch	A2h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9163	Slot1 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9163	64h	5Ch	A3h	1
P9164	Slot1 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9164	64h	5Ch	A4h	1
P9165	Slot1 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9165	64h	5Ch	A5h	1
P9166	Slot1 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9166	64h	5Ch	A6h	1
P9167	Slot1 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9167	64h	5Ch	A7h	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	64h	5Ch	AAh	1
P9171	Slot1 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened	-	ro, enum	0	9171	64h	5Ch	ABh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		4 = Transparent Mode 5 = Wrong Contactor								
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	64h	5Ch	ACh	1
P9173	Slot1 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9173	64h	5Ch	ADh	1
P9175	Slot1 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9175	64h	5Ch	AFh	1
P9176	Slot1 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9176	64h	5Ch	B0h	1
P9177	Slot1 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9177	64h	5Ch	B1h	1
P9178	Slot1 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9178	64h	5Ch	B2h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	5Ch	B4h	1
P9181	Slot1 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9181	64h	5Ch	B5h	1
P9182	Slot1 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9182	64h	5Ch	B6h	1
P9183	Slot1 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9183	64h	5Ch	B7h	1
P9185	Slot1 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9185	64h	5Ch	B9h	1
P9186	Slot1 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9186	64h	5Ch	BAh	1
P9187	Slot1 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9187	64h	5Ch	BBh	1
P9188	Slot1 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9188	64h	5Ch	BCh	1
P9103	Slot1 - Factory Reset	0 to 65535	0	rw, 16bit	0	9103	64h	5Ch	67h	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	64h	5Ch	96h	1
P9151	Slot1 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9151	64h	5Ch	97h	1
P9152	Slot1 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9152	64h	5Ch	98h	1
P9153	Slot1 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9153	64h	5Ch	99h	1
P9154	Slot1 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9154	64h	5Ch	9Ah	1
P9155	Slot1 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9155	64h	5Ch	9Bh	1
P9156	Slot1 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9156	64h	5Ch	9Ch	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9157	Slot1 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9157	64h	5Ch	9Dh	1
P9158	Slot1 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9158	64h	5Ch	9Eh	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	64h	5Ch	BEh	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	64h	5Ch	BFh	1
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	64h	5Ch	C0h	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	0	rw, 32bit	0	1102	64h	0Ch	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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										
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 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	1202	64h	0Dh	66h	2
Slot 2 - Digital Input/Output - Digital Inputs (DI)										
P1200	Slot 2 - Digital Inputs (DI)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03	-	ro, 32bit	0	1200	64h	0Dh	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
Slot 2 - Digital Input/Output - Configuration										
P1204	Slot 2 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1204	64h	0Dh	68h	2
P1206	Slot 2 - Error Value	0 to 4294967295	0	rw, 32bit	0	1206	64h	0Dh	6Ah	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	64h	21h	87h	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	0	rw, enum	0	3242	64h	21h	8Eh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv								
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel Unit										
P3249	Slot 2 - Analog Input Channel Unit 1 - 1 ... 7		0	rw, enum	0	3249	64h	21h	95h	1
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel Decimal Digit										
P3256	Slot 2 - Decimal Digit of the Analog Input Channel - 1 ... 7		1	rw, enum	0	3256	64h	21h	9Ch	1
Slot 2 - Analog Input (AI, TH, RTD) - Configuration - Channel filter										
P3263	Slot 2 - Filter of the Analog Input Channel - 1 ... 7		4	rw, enum	0	3263	64h	21h	A3h	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	64h	21h	AAh	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	64h	21h	B2h	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	64h	21h	64h	1
Slot 2 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status										
P3207	Slot 2 - Analog Channel Status - 1 ... 7		-	ro, enum	0	3207	64h	21h	6Bh	1
0 = ai: Inactive / th: Inactive / rtd: Inactive										

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open								
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	64h	35h	6Ch	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	64h	35h	74h	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	64h	35h	84h	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	64h	35h	8Ch	1
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	64h	35h	64h	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	64h	49h	76h	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	64h	49h	78h	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	rw, enum	0	7222	64h	49h	7Ah	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		4 = Average of 16 Values 5 = Average of 32 Values								
Slot 2 - Analog input (SG) - Configuration - Channel Gain										
P7224	Slot 2 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7224	64h	49h	7Ch	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	64h	49h	7Eh	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	64h	49h	82h	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	64h	49h	84h	1
Slot 2 - Analog input (SG) - Configuration - Channel Sampling Rate										
P7234	Slot 2 - 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	7234	64h	49h	86h	1
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	64h	49h	88h	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	64h	49h	8Ch	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	64h	49h	8Eh	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...)	0	rw, enum	0	7244	64h	49h	90h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words	
		3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)									
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	64h	49h	64h	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	64h	49h	66h	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	64h	49h	6Ah	1	
Slot 2 - Starter manager (SCW)											
Slot 2 - Starter manager (SCW) - Status											
Slot 2 - Starter manager (SCW) - Status - Product Information											
P1200	Slot 2 - Digital Inputs (DI)	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	-	ro, 32bit	0	1200	64h	0Dh	64h	2	

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24								
P9202	Slot2 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9202	64h	5Dh	66h	1
Slot 2 - Starter manager (SCW) - Status - Starters										
P9210	Slot2 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9210	64h	5Dh	6Eh	1
P9211	Slot2 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9211	64h	5Dh	6Fh	1
P9212	Slot2 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9212	64h	5Dh	70h	1
P9213	Slot2 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9213	64h	5Dh	71h	1
P9214	Slot2 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9214	64h	5Dh	72h	1
P9215	Slot2 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9215	64h	5Dh	73h	1
P9216	Slot2 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9216	64h	5Dh	74h	1
P9217	Slot2 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9217	64h	5Dh	75h	1
P9218	Slot2 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9218	64h	5Dh	76h	1
P9219	Slot2 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9219	64h	5Dh	77h	1
P9220	Slot2 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9220	64h	5Dh	78h	1
P9221	Slot2 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9221	64h	5Dh	79h	1
P9222	Slot2 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9222	64h	5Dh	7Ah	1
P9223	Slot2 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9223	64h	5Dh	7Bh	1
P9224	Slot2 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9224	64h	5Dh	7Ch	1
P9225	Slot2 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9225	64h	5Dh	7Dh	1
P9230	Slot2 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9230	64h	5Dh	82h	2
P9232	Slot2 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9232	64h	5Dh	84h	2
P9234	Slot2 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9234	64h	5Dh	86h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9236	Slot2 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9236	64h	5Dh	88h	2
P9238	Slot2 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9238	64h	5Dh	8Ah	2
P9240	Slot2 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9240	64h	5Dh	8Ch	2
P9242	Slot2 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9242	64h	5Dh	8Eh	2
P9244	Slot2 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9244	64h	5Dh	90h	2
P9260	Slot2 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9260	64h	5Dh	A0h	1
P9261	Slot2 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9261	64h	5Dh	A1h	1
P9262	Slot2 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9262	64h	5Dh	A2h	1
P9263	Slot2 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9263	64h	5Dh	A3h	1
P9264	Slot2 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9264	64h	5Dh	A4h	1
P9265	Slot2 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9265	64h	5Dh	A5h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9266	Slot2 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9266	64h	5Dh	A6h	1
P9267	Slot2 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9267	64h	5Dh	A7h	1
Slot 2 - Starter manager (SCW) - Status - Errors and Alarms										
P9270	Slot2 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9270	64h	5Dh	AAh	1
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	64h	5Dh	ABh	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	64h	5Dh	ACh	1
P9273	Slot2 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened	-	ro, enum	0	9273	64h	5Dh	ADh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		4 = Transparent Mode 5 = Wrong Contactor								
P9275	Slot2 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9275	64h	5Dh	AFh	1
P9276	Slot2 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9276	64h	5Dh	B0h	1
P9277	Slot2 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9277	64h	5Dh	B1h	1
P9278	Slot2 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9278	64h	5Dh	B2h	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	64h	5Dh	B4h	1
P9281	Slot2 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9281	64h	5Dh	B5h	1
P9282	Slot2 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9282	64h	5Dh	B6h	1
P9283	Slot2 - P4 - Operation Mode		0	rw, 8bit	0	9283	64h	5Dh	B7h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		0 = Starter 1 = Transparent								
P9285	Slot2 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9285	64h	5Dh	B9h	1
P9286	Slot2 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9286	64h	5Dh	BAh	1
P9287	Slot2 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9287	64h	5Dh	BBh	1
P9288	Slot2 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9288	64h	5Dh	BCh	1
P9203	Slot2 - Factory Reset	0 to 65535	0	rw, 16bit	0	9203	64h	5Dh	67h	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	64h	5Dh	96h	1
P9251	Slot2 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9251	64h	5Dh	97h	1
P9252	Slot2 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9252	64h	5Dh	98h	1
P9253	Slot2 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9253	64h	5Dh	99h	1
P9254	Slot2 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9254	64h	5Dh	9Ah	1
P9255	Slot2 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9255	64h	5Dh	9Bh	1
P9256	Slot2 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9256	64h	5Dh	9Ch	1
P9257	Slot2 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9257	64h	5Dh	9Dh	1
P9258	Slot2 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9258	64h	5Dh	9Eh	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	64h	5Dh	BEh	1
P9291	Slot2 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse	0	rw, 16bit	0	9291	64h	5Dh	BFh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 3 = Starter 4 - reverse								
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	64h	5Dh	C0h	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 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	1202	64h	0Dh	66h	2
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	0	rw, 32bit	0	1302	64h	0Eh	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
Slot 3 - Digital Input/Output - Digital Inputs (DIs)										
P1300	Slot 3 - Digital Inputs (DIs)		-	ro, 32bit	0	1300	64h	0Eh	64h	2
		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								

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24								
Slot 3 - Digital Input/Output - Configuration										
P1304	Slot 3 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1304	64h	0Eh	68h	2
P1306	Slot 3 - Error Value	0 to 4294967295	0	rw, 32bit	0	1306	64h	0Eh	6Ah	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	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	3335	64h	22h	87h	1
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	64h	22h	8Eh	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	64h	22h	95h	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	1	rw, enum	0	3356	64h	22h	9Ch	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		3 = ai: 3 / th: 1 / rtd: 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	64h	22h	A3h	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	64h	22h	AAh	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	64h	22h	B2h	1
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	64h	22h	64h	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 / rtd: Active 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	0	3307	64h	22h	6Bh	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	64h	36h	6Ch	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	64h	36h	74h	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	64h	36h	84h	1
Slot 3 - Analog Output - Configuration - Channel Offset										

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	4Ah	86h	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	64h	4Ah	88h	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	64h	4Ah	8Ch	1
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	64h	4Ah	8Eh	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	64h	4Ah	90h	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	64h	4Ah	64h	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	64h	4Ah	66h	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	64h	4Ah	6Ah	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
Slot 3 - Starter manager (SCW)										
Slot 3 - Starter manager (SCW) - Status										
Slot 3 - Starter manager (SCW) - Status - Product Information										
P1300	Slot 3 - Digital Inputs (DI)	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	64h	0Eh	64h	2
P9302	Slot3 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9302	64h	5Eh	66h	1
Slot 3 - Starter manager (SCW) - Status - Starters										
P9310	Slot3 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9310	64h	5Eh	6Eh	1
P9311	Slot3 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9311	64h	5Eh	6Fh	1
P9312	Slot3 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9312	64h	5Eh	70h	1
P9313	Slot3 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9313	64h	5Eh	71h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9314	Slot3 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9314	64h	5Eh	72h	1
P9315	Slot3 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9315	64h	5Eh	73h	1
P9316	Slot3 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9316	64h	5Eh	74h	1
P9317	Slot3 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9317	64h	5Eh	75h	1
P9318	Slot3 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9318	64h	5Eh	76h	1
P9319	Slot3 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9319	64h	5Eh	77h	1
P9320	Slot3 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9320	64h	5Eh	78h	1
P9321	Slot3 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9321	64h	5Eh	79h	1
P9322	Slot3 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9322	64h	5Eh	7Ah	1
P9323	Slot3 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9323	64h	5Eh	7Bh	1
P9324	Slot3 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9324	64h	5Eh	7Ch	1
P9325	Slot3 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9325	64h	5Eh	7Dh	1
P9330	Slot3 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9330	64h	5Eh	82h	2
P9332	Slot3 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9332	64h	5Eh	84h	2
P9334	Slot3 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9334	64h	5Eh	86h	2
P9336	Slot3 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9336	64h	5Eh	88h	2
P9338	Slot3 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9338	64h	5Eh	8Ah	2
P9340	Slot3 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9340	64h	5Eh	8Ch	2
P9342	Slot3 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9342	64h	5Eh	8Eh	2
P9344	Slot3 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9344	64h	5Eh	90h	2
P9360	Slot3 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil		ro, enum	0	9360	64h	5Eh	A0h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		3 = Starter OK. 4 = Energized coil								
P9361	Slot3 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9361	64h	5Eh	A1h	1
P9362	Slot3 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9362	64h	5Eh	A2h	1
P9363	Slot3 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9363	64h	5Eh	A3h	1
P9364	Slot3 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9364	64h	5Eh	A4h	1
P9365	Slot3 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9365	64h	5Eh	A5h	1
P9366	Slot3 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9366	64h	5Eh	A6h	1
P9367	Slot3 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9367	64h	5Eh	A7h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	5Eh	AAh	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	64h	5Eh	ABh	1
P9372	Slot3 - P3 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9372	64h	5Eh	ACh	1
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	64h	5Eh	ADh	1
P9375	Slot3 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9375	64h	5Eh	AFh	1
P9376	Slot3 - P2 - Last Alarm	0 = No Alarm 1 = Starter On	-	ro, enum	0	9376	64h	5Eh	B0h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		2 = Air Circuit Breaker 3 = CPU overtemperature								
P9377	Slot3 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9377	64h	5Eh	B1h	1
P9378	Slot3 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9378	64h	5Eh	B2h	1
Slot 3 - Starter manager (SCW) - Configurations										
Slot 3 - Starter manager (SCW) - Configurations - Starters										
P9380	Slot3 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9380	64h	5Eh	B4h	1
P9381	Slot3 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9381	64h	5Eh	B5h	1
P9382	Slot3 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9382	64h	5Eh	B6h	1
P9383	Slot3 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9383	64h	5Eh	B7h	1
P9385	Slot3 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9385	64h	5Eh	B9h	1
P9386	Slot3 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9386	64h	5Eh	BAh	1
P9387	Slot3 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9387	64h	5Eh	BBh	1
P9388	Slot3 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9388	64h	5Eh	BCh	1
P9303	Slot3 - Factory Reset	0 to 65535	0	rw, 16bit	0	9303	64h	5Eh	67h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
Slot 3 - Starter manager (SCW) - Configurations - Counters										
P9350	Slot3 - Saves Operation Counters to the NV memory	0 to 1	0	rw, 8bit	0	9350	64h	5Eh	96h	1
P9351	Slot3 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9351	64h	5Eh	97h	1
P9352	Slot3 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9352	64h	5Eh	98h	1
P9353	Slot3 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9353	64h	5Eh	99h	1
P9354	Slot3 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9354	64h	5Eh	9Ah	1
P9355	Slot3 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9355	64h	5Eh	9Bh	1
P9356	Slot3 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9356	64h	5Eh	9Ch	1
P9357	Slot3 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9357	64h	5Eh	9Dh	1
P9358	Slot3 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9358	64h	5Eh	9Eh	1
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	64h	5Eh	BEh	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	64h	5Eh	BFh	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	64h	5Eh	C0h	1
P1302	Slot 3 - Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03	0	rw, 32bit	0	1302	64h	0Eh	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
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	0	rw, 32bit	0	1402	64h	0Fh	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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 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 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	1400	64h	0Fh	64h	2
Slot 4 - Digital Input/Output - Configuration										
P1404	Slot 4 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1404	64h	0Fh	68h	2
P1406	Slot 4 - Error Value	0 to 4294967295	0	rw, 32bit	0	1406	64h	0Fh	6Ah	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words		
P3470	Slot 4 - Gain of the Analog Input Channel - 1 ... 7	-32768 to 32767	1000	rw, s16bit	0	3470	64h	23h	AAh	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	64h	23h	B2h	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	64h	23h	64h	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	64h	23h	6Bh	1	
Slot 4 - Analog Output												
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	64h	37h	6Ch	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	64h	37h	74h	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	64h	37h	84h	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	64h	37h	8Ch	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	64h	37h	64h	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	1 0 = Inactive		-	rw, enum	0	7418	64h	4Bh	76h	1	

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = Active								
Slot 4 - Analog input (SG) - Configuration - Channel Unit										
P7420	Slot 4 - Analog Channel Unit - 1 ... 2		0	rw, enum	0	7420	64h	4Bh	78h	1
Slot 4 - Analog input (SG) - Configuration - Channel filter										
P7422	Slot 4 - Analog Channel Filter - 1 ... 2	0 = g 1 = kg 2 = t	4	rw, enum	0	7422	64h	4Bh	7Ah	1
Slot 4 - Analog input (SG) - Configuration - Channel Gain										
P7424	Slot 4 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7424	64h	4Bh	7Ch	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	64h	4Bh	7Eh	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	64h	4Bh	82h	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	64h	4Bh	84h	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	64h	4Bh	86h	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	64h	4Bh	88h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	4Bh	8Ch	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	64h	4Bh	8Eh	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	64h	4Bh	90h	1
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	64h	4Bh	64h	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	64h	4Bh	66h	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	64h	4Bh	6Ah	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 (DI)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04 Bit 4 = DI05 Bit 5 = DI06 Bit 6 = DI07	-	ro, 32bit	0	1400	64h	0Fh	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
P9402	Slot4 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9402	64h	5Fh	66h	1
Slot 4 - Starter manager (SCW) - Status - Starters										
P9410	Slot4 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9410	64h	5Fh	6Eh	1
P9411	Slot4 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9411	64h	5Fh	6Fh	1
P9412	Slot4 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9412	64h	5Fh	70h	1
P9413	Slot4 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9413	64h	5Fh	71h	1
P9414	Slot4 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9414	64h	5Fh	72h	1
P9415	Slot4 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9415	64h	5Fh	73h	1
P9416	Slot4 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9416	64h	5Fh	74h	1
P9417	Slot4 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9417	64h	5Fh	75h	1
P9418	Slot4 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9418	64h	5Fh	76h	1
P9419	Slot4 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9419	64h	5Fh	77h	1
P9420	Slot4 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9420	64h	5Fh	78h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9421	Slot4 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9421	64h	5Fh	79h	1
P9422	Slot4 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9422	64h	5Fh	7Ah	1
P9423	Slot4 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9423	64h	5Fh	7Bh	1
P9424	Slot4 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9424	64h	5Fh	7Ch	1
P9425	Slot4 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9425	64h	5Fh	7Dh	1
P9430	Slot4 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9430	64h	5Fh	82h	2
P9432	Slot4 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9432	64h	5Fh	84h	2
P9434	Slot4 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9434	64h	5Fh	86h	2
P9436	Slot4 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9436	64h	5Fh	88h	2
P9438	Slot4 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9438	64h	5Fh	8Ah	2
P9440	Slot4 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9440	64h	5Fh	8Ch	2
P9442	Slot4 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9442	64h	5Fh	8Eh	2
P9444	Slot4 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9444	64h	5Fh	90h	2
P9460	Slot4 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9460	64h	5Fh	A0h	1
P9461	Slot4 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9461	64h	5Fh	A1h	1
P9462	Slot4 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9462	64h	5Fh	A2h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9463	Slot4 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9463	64h	5Fh	A3h	1
P9464	Slot4 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9464	64h	5Fh	A4h	1
P9465	Slot4 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9465	64h	5Fh	A5h	1
P9466	Slot4 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9466	64h	5Fh	A6h	1
P9467	Slot4 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9467	64h	5Fh	A7h	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	64h	5Fh	AAh	1
P9471	Slot4 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened	-	ro, enum	0	9471	64h	5Fh	ABh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		4 = Transparent Mode 5 = Wrong Contactor								
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	64h	5Fh	ACh	1
P9473	Slot4 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9473	64h	5Fh	ADh	1
P9475	Slot4 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9475	64h	5Fh	AFh	1
P9476	Slot4 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9476	64h	5Fh	B0h	1
P9477	Slot4 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9477	64h	5Fh	B1h	1
P9478	Slot4 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9478	64h	5Fh	B2h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	5Fh	B4h	1
P9481	Slot4 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9481	64h	5Fh	B5h	1
P9482	Slot4 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9482	64h	5Fh	B6h	1
P9483	Slot4 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9483	64h	5Fh	B7h	1
P9485	Slot4 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9485	64h	5Fh	B9h	1
P9486	Slot4 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9486	64h	5Fh	BAh	1
P9487	Slot4 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9487	64h	5Fh	BBh	1
P9488	Slot4 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9488	64h	5Fh	BCh	1
P9403	Slot4 - Factory Reset	0 to 65535	0	rw, 16bit	0	9403	64h	5Fh	67h	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	64h	5Fh	96h	1
P9451	Slot4 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9451	64h	5Fh	97h	1
P9452	Slot4 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9452	64h	5Fh	98h	1
P9453	Slot4 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9453	64h	5Fh	99h	1
P9454	Slot4 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9454	64h	5Fh	9Ah	1
P9455	Slot4 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9455	64h	5Fh	9Bh	1
P9456	Slot4 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9456	64h	5Fh	9Ch	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9457	Slot4 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9457	64h	5Fh	9Dh	1
P9458	Slot4 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9458	64h	5Fh	9Eh	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	64h	5Fh	BEh	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	64h	5Fh	Bfh	1
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	64h	5Fh	C0h	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	0	rw, 32bit	0	1402	64h	0Fh	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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										
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 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	1502	64h	10h	66h	2
Slot 5 - Digital Input/Output - Digital Inputs (DI)										
P1500	Slot 5 - Digital Inputs (DI)	Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03	-	ro, 32bit	0	1500	64h	10h	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
Slot 5 - Digital Input/Output - Configuration										
P1504	Slot 5 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1504	64h	10h	68h	2
P1506	Slot 5 - Error Value	0 to 4294967295	0	rw, 32bit	0	1506	64h	10h	6Ah	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	64h	24h	87h	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	0	rw, enum	0	3542	64h	24h	8Eh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = ai: 0-20mA / th: K / rtd: PT1000 2 = ai: 4-20mA / th: T / rtd: Reserv								
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	64h	24h	95h	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	64h	24h	9Ch	1
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	64h	24h	A3h	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	64h	24h	AAh	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	64h	24h	B2h	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	64h	24h	64h	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	-	ro, enum	0	3507	64h	24h	6Bh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open								
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	64h	38h	6Ch	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	64h	38h	74h	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	64h	38h	84h	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	64h	38h	8Ch	1
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	64h	38h	64h	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	64h	4Ch	76h	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	64h	4Ch	78h	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	rw, enum	0	7522	64h	4Ch	7Ah	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		4 = Average of 16 Values 5 = Average of 32 Values								
Slot 5 - Analog input (SG) - Configuration - Channel Gain										
P7524	Slot 5 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7524	64h	4Ch	7Ch	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	64h	4Ch	7Eh	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	64h	4Ch	82h	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	64h	4Ch	84h	1
Slot 5 - Analog input (SG) - Configuration - Channel Sampling Rate										
P7534	Slot 5 - 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	7534	64h	4Ch	86h	1
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	64h	4Ch	88h	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	64h	4Ch	8Ch	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	64h	4Ch	8Eh	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...)	0	rw, enum	0	7544	64h	4Ch	90h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words	
		3 = step 10 (000, 010, 020, 030...) 4 = step 50 (000, 050, 100, 150...)									
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	64h	4Ch	64h	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	64h	4Ch	66h	2	
Slot 5 - Analog input (SG) - Status - Analog SG Channel Status											
P7506	Slot 5 - Analog Channel Status - 1 ... 2		-	ro, enum	0	7506	64h	4Ch	6Ah	1	
Slot 5 - Starter manager (SCW)											
Slot 5 - Starter manager (SCW) - Status											
Slot 5 - Starter manager (SCW) - Status - Product Information											
P1500	Slot 5 - Digital Inputs (DI)	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	-	ro, 32bit	0	1500	64h	10h	64h	2	

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24								
P9502	Slot5 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9502	64h	60h	66h	1
Slot 5 - Starter manager (SCW) - Status - Starters										
P9510	Slot5 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9510	64h	60h	6Eh	1
P9511	Slot5 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9511	64h	60h	6Fh	1
P9512	Slot5 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9512	64h	60h	70h	1
P9513	Slot5 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9513	64h	60h	71h	1
P9514	Slot5 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9514	64h	60h	72h	1
P9515	Slot5 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9515	64h	60h	73h	1
P9516	Slot5 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9516	64h	60h	74h	1
P9517	Slot5 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9517	64h	60h	75h	1
P9518	Slot5 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9518	64h	60h	76h	1
P9519	Slot5 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9519	64h	60h	77h	1
P9520	Slot5 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9520	64h	60h	78h	1
P9521	Slot5 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9521	64h	60h	79h	1
P9522	Slot5 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9522	64h	60h	7Ah	1
P9523	Slot5 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9523	64h	60h	7Bh	1
P9524	Slot5 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9524	64h	60h	7Ch	1
P9525	Slot5 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9525	64h	60h	7Dh	1
P9530	Slot5 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9530	64h	60h	82h	2
P9532	Slot5 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9532	64h	60h	84h	2
P9534	Slot5 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9534	64h	60h	86h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9536	Slot5 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9536	64h	60h	88h	2
P9538	Slot5 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9538	64h	60h	8Ah	2
P9540	Slot5 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9540	64h	60h	8Ch	2
P9542	Slot5 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9542	64h	60h	8Eh	2
P9544	Slot5 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9544	64h	60h	90h	2
P9560	Slot5 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9560	64h	60h	A0h	1
P9561	Slot5 - P1 Status - Direction and Errors									
P9562	Slot5 - P2 Status - Starter	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm 1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9562	64h	60h	A2h	1
P9563	Slot5 - P2 Status - Direction and Errors									
P9564	Slot5 - P3 Status - Starter	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm 1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9564	64h	60h	A4h	1
P9565	Slot5 - P3 Status - Direction and Errors									

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9566	Slot5 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9566	64h	60h	A6h	1
P9567	Slot5 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9567	64h	60h	A7h	1
Slot 5 - Starter manager (SCW) - Status - Errors and Alarms										
P9570	Slot5 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9570	64h	60h	AAh	1
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	64h	60h	ABh	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	64h	60h	ACh	1
P9573	Slot5 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened	-	ro, enum	0	9573	64h	60h	ADh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		4 = Transparent Mode 5 = Wrong Contactor								
P9575	Slot5 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9575	64h	60h	AFh	1
P9576	Slot5 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9576	64h	60h	B0h	1
P9577	Slot5 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9577	64h	60h	B1h	1
P9578	Slot5 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9578	64h	60h	B2h	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	64h	60h	B4h	1
P9581	Slot5 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9581	64h	60h	B5h	1
P9582	Slot5 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9582	64h	60h	B6h	1
P9583	Slot5 - P4 - Operation Mode		0	rw, 8bit	0	9583	64h	60h	B7h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		0 = Starter 1 = Transparent								
P9585	Slot5 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9585	64h	60h	B9h	1
P9586	Slot5 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9586	64h	60h	BAh	1
P9587	Slot5 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9587	64h	60h	BBh	1
P9588	Slot5 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9588	64h	60h	BCh	1
P9503	Slot5 - Factory Reset	0 to 65535	0	rw, 16bit	0	9503	64h	60h	67h	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	64h	60h	96h	1
P9551	Slot5 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9551	64h	60h	97h	1
P9552	Slot5 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9552	64h	60h	98h	1
P9553	Slot5 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9553	64h	60h	99h	1
P9554	Slot5 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9554	64h	60h	9Ah	1
P9555	Slot5 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9555	64h	60h	9Bh	1
P9556	Slot5 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9556	64h	60h	9Ch	1
P9557	Slot5 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9557	64h	60h	9Dh	1
P9558	Slot5 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9558	64h	60h	9Eh	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	64h	60h	BEh	1
P9591	Slot5 - Reverse Starter Command	Bit 0 = Starter 1 - reverse Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse	0	rw, 16bit	0	9591	64h	60h	BFh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 3 = Starter 4 - reverse								
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	64h	60h	C0h	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 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	1502	64h	10h	66h	2
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	0	rw, 32bit	0	1602	64h	11h	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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	-							
Slot 6 - Digital Input/Output - Digital Inputs (DI)										
P1600	Slot 6 - Digital Inputs (DI)	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	-	ro, 32bit	0	1600	64h	11h	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 18 = DI19 Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24								
Slot 6 - Digital Input/Output - Configuration										
P1604	Slot 6 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1604	64h	11h	68h	2
P1606	Slot 6 - Error Value	0 to 4294967295	0	rw, 32bit	0	1606	64h	11h	6Ah	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	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	3635	64h	25h	87h	1
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	64h	25h	8Eh	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	64h	25h	95h	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	1	rw, enum	0	3656	64h	25h	9Ch	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P5640	Slot 6 - Analog Output Channel Offset - 1 ... 8	-32768 to 32767	0	rw, s16bit	0	5640	64h	39h	8Ch	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	64h	39h	64h	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	64h	4Dh	76h	1
Slot 6 - Analog input (SG) - Configuration - Channel Unit										
P7620	Slot 6 - Analog Channel Unit - 1 ... 2	0 = g 1 = kg 2 = t	0	rw, enum	0	7620	64h	4Dh	78h	1
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	64h	4Dh	7Ah	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	64h	4Dh	7Ch	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	64h	4Dh	7Eh	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	64h	4Dh	82h	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	64h	4Dh	84h	1
Slot 6 - Analog input (SG) - Configuration - Channel Sampling Rate										

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	4Dh	86h	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	64h	4Dh	88h	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	64h	4Dh	8Ch	1
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	64h	4Dh	8Eh	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	64h	4Dh	90h	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	64h	4Dh	64h	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	64h	4Dh	66h	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	64h	4Dh	6Ah	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
Slot 6 - Starter manager (SCW)										
Slot 6 - Starter manager (SCW) - Status										
Slot 6 - Starter manager (SCW) - Status - Product Information										
P1600	Slot 6 - Digital Inputs (DI)	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	64h	11h	64h	2
P9602	Slot6 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9602	64h	61h	66h	1
Slot 6 - Starter manager (SCW) - Status - Starters										
P9610	Slot6 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9610	64h	61h	6Eh	1
P9611	Slot6 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9611	64h	61h	6Fh	1
P9612	Slot6 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9612	64h	61h	70h	1
P9613	Slot6 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9613	64h	61h	71h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9614	Slot6 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9614	64h	61h	72h	1
P9615	Slot6 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9615	64h	61h	73h	1
P9616	Slot6 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9616	64h	61h	74h	1
P9617	Slot6 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9617	64h	61h	75h	1
P9618	Slot6 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9618	64h	61h	76h	1
P9619	Slot6 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9619	64h	61h	77h	1
P9620	Slot6 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9620	64h	61h	78h	1
P9621	Slot6 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9621	64h	61h	79h	1
P9622	Slot6 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9622	64h	61h	7Ah	1
P9623	Slot6 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9623	64h	61h	7Bh	1
P9624	Slot6 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9624	64h	61h	7Ch	1
P9625	Slot6 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9625	64h	61h	7Dh	1
P9630	Slot6 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9630	64h	61h	82h	2
P9632	Slot6 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9632	64h	61h	84h	2
P9634	Slot6 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9634	64h	61h	86h	2
P9636	Slot6 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9636	64h	61h	88h	2
P9638	Slot6 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9638	64h	61h	8Ah	2
P9640	Slot6 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9640	64h	61h	8Ch	2
P9642	Slot6 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9642	64h	61h	8Eh	2
P9644	Slot6 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9644	64h	61h	90h	2
P9660	Slot6 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil		ro, enum	0	9660	64h	61h	A0h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		3 = Starter OK. 4 = Energized coil								
P9661	Slot6 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9661	64h	61h	A1h	1
P9662	Slot6 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9662	64h	61h	A2h	1
P9663	Slot6 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9663	64h	61h	A3h	1
P9664	Slot6 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9664	64h	61h	A4h	1
P9665	Slot6 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9665	64h	61h	A5h	1
P9666	Slot6 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9666	64h	61h	A6h	1
P9667	Slot6 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9667	64h	61h	A7h	1

Slot 6 - Starter manager (SCW) - Status - Errors and Alarms

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	61h	AAh	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	64h	61h	ABh	1
P9672	Slot6 - P3 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9672	64h	61h	ACh	1
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	64h	61h	ADh	1
P9675	Slot6 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9675	64h	61h	AFh	1
P9676	Slot6 - P2 - Last Alarm	0 = No Alarm 1 = Starter On	-	ro, enum	0	9676	64h	61h	B0h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		2 = Air Circuit Breaker 3 = CPU overtemperature								
P9677	Slot6 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9677	64h	61h	B1h	1
P9678	Slot6 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9678	64h	61h	B2h	1
Slot 6 - Starter manager (SCW) - Configurations										
Slot 6 - Starter manager (SCW) - Configurations - Starters										
P9680	Slot6 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9680	64h	61h	B4h	1
P9681	Slot6 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9681	64h	61h	B5h	1
P9682	Slot6 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9682	64h	61h	B6h	1
P9683	Slot6 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9683	64h	61h	B7h	1
P9680	Slot6 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9680	64h	61h	B4h	1
P9686	Slot6 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9686	64h	61h	BAh	1
P9687	Slot6 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9687	64h	61h	BBh	1
P9688	Slot6 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9688	64h	61h	BCh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9603	Slot6 - Factory Reset	0 to 65535	0	rw, 16bit	0	9603	64h	61h	67h	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	64h	61h	96h	1
P9651	Slot6 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9651	64h	61h	97h	1
P9652	Slot6 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9652	64h	61h	98h	1
P9653	Slot6 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9653	64h	61h	99h	1
P9654	Slot6 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9654	64h	61h	9Ah	1
P9655	Slot6 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9655	64h	61h	9Bh	1
P9656	Slot6 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9656	64h	61h	9Ch	1
P9657	Slot6 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9657	64h	61h	9Dh	1
P9658	Slot6 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9658	64h	61h	9Eh	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	64h	61h	BEh	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	64h	61h	BFh	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	64h	61h	C0h	1
P1602	Slot 6 - Digital Outputs (DOs)	Bit 0 = DO01	0	rw, 32bit	0	1602	64h	11h	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
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	0	rw, 32bit	0	1702	64h	12h	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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 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 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	1700	64h	12h	64h	2
Slot 7 - Digital Input/Output - Configuration										
P1704	Slot 7 - Error Mode of the Digital Outputs	0 to 4294967295	0	rw, 32bit	0	1704	64h	12h	68h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P1706	Slot 7 - Error Value	0 to 4294967295	0	rw, 32bit	0	1706	64h	12h	6Ah	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	64h	26h	87h	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 2 = ai: 4-20mA / th: T / rtd: Reserv	0	rw, enum	0	3742	64h	26h	8Eh	1
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	64h	26h	95h	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	64h	26h	9Ch	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	4	rw, enum	0	3763	64h	26h	A3h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P7718	Slot 7 - Enables Analog Channel - 1 ... 2	0 = Inactive 1 = Active	1	rw, enum	0	7718	64h	4Eh	76h	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	64h	4Eh	78h	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	64h	4Eh	7Ah	1
Slot 7 - Analog input (SG) - Configuration - Channel Gain										
P7724	Slot 7 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7724	64h	4Eh	7Ch	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	64h	4Eh	7Eh	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	64h	4Eh	82h	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	64h	4Eh	84h	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	64h	4Eh	86h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	4Eh	88h	2
Slot 7 - Analog input (SG) - Configuration - Discard Maximum and Minimum Value										
P7740	Slot 7 - Analog Channel Discard Value - 1 ... 2		0 0 = Maintain 1 = Discard	rw, enum	0	7740	64h	4Eh	8Ch	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	64h	4Eh	8Eh	1
Slot 7 - Analog input (SG) - Configuration - Channel Variation Step										
P7744	Slot 7 - Analog Channel Variation Step - 1 ... 2		0 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...)	rw, enum	0	7744	64h	4Eh	90h	1
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	64h	4Eh	64h	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	64h	4Eh	66h	2
Slot 7 - Analog input (SG) - Status - SG Analog Channel Status										
P7706	Slot 7 - Analog Channel Status - 1 ... 2		0 0 = Inactive 1 = Active	ro, enum	0	7706	64h	4Eh	6Ah	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 (DI)		Bit 0 = DI01 Bit 1 = DI02 Bit 2 = DI03 Bit 3 = DI04	ro, 32bit	0	1700	64h	12h	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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								
P9702	Slot7 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9702	64h	62h	66h	1
Slot 7 - Starter manager (SCW) - Status - Starters										
P9710	Slot7 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9710	64h	62h	6Eh	1
P9711	Slot7 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9711	64h	62h	6Fh	1
P9712	Slot7 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9712	64h	62h	70h	1
P9713	Slot7 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9713	64h	62h	71h	1
P9714	Slot7 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9714	64h	62h	72h	1
P9715	Slot7 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9715	64h	62h	73h	1
P9716	Slot7 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9716	64h	62h	74h	1
P9717	Slot7 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9717	64h	62h	75h	1
P9718	Slot7 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9718	64h	62h	76h	1
P9719	Slot7 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9719	64h	62h	77h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9720	Slot7 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9720	64h	62h	78h	1
P9721	Slot7 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9721	64h	62h	79h	1
P9722	Slot7 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9722	64h	62h	7Ah	1
P9723	Slot7 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9723	64h	62h	7Bh	1
P9724	Slot7 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9724	64h	62h	7Ch	1
P9725	Slot7 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9725	64h	62h	7Dh	1
P9730	Slot7 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9730	64h	62h	82h	2
P9732	Slot7 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9732	64h	62h	84h	2
P9734	Slot7 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9734	64h	62h	86h	2
P9736	Slot7 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9736	64h	62h	88h	2
P9738	Slot7 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9738	64h	62h	8Ah	2
P9740	Slot7 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9740	64h	62h	8Ch	2
P9742	Slot7 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9742	64h	62h	8Eh	2
P9744	Slot7 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9744	64h	62h	90h	2
P9760	Slot7 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9760	64h	62h	A0h	1
P9761	Slot7 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9761	64h	62h	A1h	1
P9762	Slot7 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK.	-	ro, enum	0	9762	64h	62h	A2h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		4 = Energized coil								
P9763	Slot7 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9763	64h	62h	A3h	1
P9764	Slot7 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9764	64h	62h	A4h	1
P9765	Slot7 - P3 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9765	64h	62h	A5h	1
P9766	Slot7 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9766	64h	62h	A6h	1
P9767	Slot7 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9767	64h	62h	A7h	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	64h	62h	AAh	1
P9771	Slot7 - P2 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil	-	ro, enum	0	9771	64h	62h	ABh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor								
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	64h	62h	ACh	1
P9773	Slot7 - P4 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9773	64h	62h	ADh	1
P9775	Slot7 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9775	64h	62h	AFh	1
P9776	Slot7 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9776	64h	62h	B0h	1
P9777	Slot7 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9777	64h	62h	B1h	1
P9778	Slot7 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker	-	ro, enum	0	9778	64h	62h	B2h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		3 = CPU overtemperature								
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	64h	62h	B4h	1
P9781	Slot7 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9781	64h	62h	B5h	1
P9782	Slot7 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9782	64h	62h	B6h	1
P9780	Slot7 - P1 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9780	64h	62h	B4h	1
P9785	Slot7 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9785	64h	62h	B9h	1
P9786	Slot7 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9786	64h	62h	BAh	1
P9787	Slot7 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9787	64h	62h	BBh	1
P9788	Slot7 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9788	64h	62h	BCh	1
P9703	Slot7 - Factory Reset	0 to 65535	0	rw, 16bit	0	9703	64h	62h	67h	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	64h	62h	96h	1
P9751	Slot7 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9751	64h	62h	97h	1
P9752	Slot7 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9752	64h	62h	98h	1
P9753	Slot7 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9753	64h	62h	99h	1
P9754	Slot7 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9754	64h	62h	9Ah	1
P9755	Slot7 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9755	64h	62h	9Bh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9756	Slot7 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9756	64h	62h	9Ch	1
P9757	Slot7 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9757	64h	62h	9Dh	1
P9758	Slot7 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9758	64h	62h	9Eh	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	64h	62h	BEh	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	64h	62h	Bfh	1
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	64h	62h	C0h	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	0	rw, 32bit	0	1702	64h	12h	66h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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										
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 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	1802	64h	13h	66h	2
Slot 8 - Digital Input/Output - Digital Inputs (DI)										
P1800	Slot 8 - Digital Inputs (DI)	Bit 0 = DI01	-	ro, 32bit	0	1800	64h	13h	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
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	64h	27h	8Eh	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	64h	27h	95h	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	64h	27h	9Ch	1
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	64h	27h	A3h	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	64h	27h	AAh	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	64h	27h	B2h	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	64h	27h	64h	1
Slot 8 - Analog Input (AI, TH, RTD) - Status - Analog Channel Status										
P3807	Slot 8 - Analog Channel Status - 1 ... 7		-	ro, enum	0	3807	64h	27h	6Bh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		0 = ai: Inactive / th: Inactive / rtd: Inactive 1 = ai: Active / th: Active / rdt: Active 2 = ai: Open / th: Open / rtd: Open								
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	64h	3Bh	6Ch	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	64h	3Bh	74h	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	64h	3Bh	84h	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	64h	3Bh	8Ch	1
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	64h	3Bh	64h	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	64h	4Fh	76h	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	64h	4Fh	78h	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	4	rw, enum	0	7822	64h	4Fh	7Ah	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		2 = Average of 4 Values 3 = Average of 8 Values 4 = Average of 16 Values 5 = Average of 32 Values								
Slot 8 - Analog input (SG) - Configuration - Channel Gain										
P7824	Slot 8 - Analog Channel Gain - 1 ... 2	-32768 to 32767	1000	rw, s16bit	0	7824	64h	4Fh	7Ch	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	64h	4Fh	7Eh	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	64h	4Fh	82h	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	64h	4Fh	84h	1
Slot 8 - Analog input (SG) - Configuration - Channel Sampling Rate										
P7834	Slot 8 - 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	7834	64h	4Fh	86h	1
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	64h	4Fh	88h	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	64h	4Fh	8Ch	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	64h	4Fh	8Eh	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...)	0	rw, enum	0	7844	64h	4Fh	90h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		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...)								
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	64h	4Fh	64h	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	64h	4Fh	66h	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	64h	4Fh	6Ah	1
Slot 8 - Starter manager (SCW)										
Slot 8 - Starter manager (SCW) - Status										
Slot 8 - Starter manager (SCW) - Status - Product Information										
P1800	Slot 8 - Digital Inputs (DI)	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	64h	13h	64h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 19 = DI20 Bit 20 = DI21 Bit 21 = DI22 Bit 22 = DI23 Bit 23 = DI24								
P9802	Slot8 - CPU Temperature	-100 to 100 °C	-	ro, s8bit	0	9802	64h	63h	66h	1
Slot 8 - Starter manager (SCW) - Status - Starters										
P9810	Slot8 - P1 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9810	64h	63h	6Eh	1
P9811	Slot8 - P1 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9811	64h	63h	6Fh	1
P9812	Slot8 - P1 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9812	64h	63h	70h	1
P9813	Slot8 - P1 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9813	64h	63h	71h	1
P9814	Slot8 - P2 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9814	64h	63h	72h	1
P9815	Slot8 - P2 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9815	64h	63h	73h	1
P9816	Slot8 - P2 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9816	64h	63h	74h	1
P9817	Slot8 - P2 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9817	64h	63h	75h	1
P9818	Slot8 - P3 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9818	64h	63h	76h	1
P9819	Slot8 - P3 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9819	64h	63h	77h	1
P9820	Slot8 - P3 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9820	64h	63h	78h	1
P9821	Slot8 - P3 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9821	64h	63h	79h	1
P9822	Slot8 - P4 Contactor 1 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9822	64h	63h	7Ah	1
P9823	Slot8 - P4 Contactor 1 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9823	64h	63h	7Bh	1
P9824	Slot8 - P4 Contactor 2 Closing Time	0 to 65535 ms	-	ro, 16bit	0	9824	64h	63h	7Ch	1
P9825	Slot8 - P4 Contactor 2 Opening Time	0 to 65535 ms	-	ro, 16bit	0	9825	64h	63h	7Dh	1
P9830	Slot8 - P1 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9830	64h	63h	82h	2
P9832	Slot8 - P1 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9832	64h	63h	84h	2

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9834	Slot8 - P2 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9834	64h	63h	86h	2
P9836	Slot8 - P2 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9836	64h	63h	88h	2
P9838	Slot8 - P3 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9838	64h	63h	8Ah	2
P9840	Slot8 - P3 C2 operation counter	0 to 10000000	-	ro, 32bit	0	9840	64h	63h	8Ch	2
P9842	Slot8 - P4 C1 operation counter	0 to 10000000	-	ro, 32bit	0	9842	64h	63h	8Eh	2
P9844	Slot8 - P4 C4 operation counter	0 to 10000000	-	ro, 32bit	0	9844	64h	63h	90h	2
P9860	Slot8 - P1 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9860	64h	63h	A0h	1
P9861	Slot8 - P1 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9861	64h	63h	A1h	1
P9862	Slot8 - P2 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9862	64h	63h	A2h	1
P9863	Slot8 - P2 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9863	64h	63h	A3h	1
P9864	Slot8 - P3 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9864	64h	63h	A4h	1
P9865	Slot8 - P3 Status - Direction and Errors	Bit 0 = Direction	-	ro, 16bit	0	9865	64h	63h	A5h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 1 = Active error Bit 2 = Active Alarm								
P9866	Slot8 - P4 Status - Starter	1 = Stop OK 2 = De-energized coil 3 = Starter OK. 4 = Energized coil	-	ro, enum	0	9866	64h	63h	A6h	1
P9867	Slot8 - P4 Status - Direction and Errors	Bit 0 = Direction Bit 1 = Active error Bit 2 = Active Alarm	-	ro, 16bit	0	9867	64h	63h	A7h	1
Slot 8 - Starter manager (SCW) - Status - Errors and Alarms										
P9870	Slot8 - P1 - Last Error	0 = No Error 1 = Stuck Contact 2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor	-	ro, enum	0	9870	64h	63h	AAh	1
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	64h	63h	ABh	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	64h	63h	ACh	1
P9873	Slot8 - P4 - Last Error	0 = No Error 1 = Stuck Contact	-	ro, enum	0	9873	64h	63h	ADh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		2 = Burned Coil 3 = Contactor Opened 4 = Transparent Mode 5 = Wrong Contactor								
P9875	Slot8 - P1 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9875	64h	63h	AFh	1
P9876	Slot8 - P2 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9876	64h	63h	B0h	1
P9877	Slot8 - P3 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9877	64h	63h	B1h	1
P9878	Slot8 - P4 - Last Alarm	0 = No Alarm 1 = Starter On 2 = Air Circuit Breaker 3 = CPU overtemperature	-	ro, enum	0	9878	64h	63h	B2h	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	64h	63h	B4h	1
P9881	Slot8 - P2 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9881	64h	63h	B5h	1
P9882	Slot8 - P3 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9882	64h	63h	B6h	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
P9883	Slot8 - P4 - Operation Mode	0 = Starter 1 = Transparent	0	rw, 8bit	0	9883	64h	63h	B7h	1
P9885	Slot8 - P1 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9885	64h	63h	B9h	1
P9886	Slot8 - P2 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9886	64h	63h	BAh	1
P9887	Slot8 - P3 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9887	64h	63h	BBh	1
P9888	Slot8 - P4 - Contactor Timeout	20 to 5000 ms	500 ms	rw, 16bit	0	9888	64h	63h	BCh	1
P9803	Slot8 - Factory Reset	0 to 65535	0	rw, 16bit	0	9803	64h	63h	67h	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	64h	63h	96h	1
P9851	Slot8 - Resets P1 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9851	64h	63h	97h	1
P9852	Slot8 - Resets P1 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9852	64h	63h	98h	1
P9853	Slot8 - Resets P2 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9853	64h	63h	99h	1
P9854	Slot8 - Resets P2 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9854	64h	63h	9Ah	1
P9855	Slot8 - Resets P3 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9855	64h	63h	9Bh	1
P9856	Slot8 - Resets P3 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9856	64h	63h	9Ch	1
P9857	Slot8 - Resets P4 C1 Operation Counter	0 to 65535	0	rw, 16bit	0	9857	64h	63h	9Dh	1
P9858	Slot8 - Resets P4 C2 Operation Counter	0 to 65535	0	rw, 16bit	0	9858	64h	63h	9Eh	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	64h	63h	BEh	1
P9891	Slot8 - Reverse Starter Command	Bit 0 = Starter 1 - reverse	0	rw, 16bit	0	9891	64h	63h	BFh	1

Parameter	Description	Range of values	Factory setting	Properties	Decimal Places	Communication Address	Class	Instance	Attribute	Qty of Mapped Words
		Bit 1 = Starter 2 - reverse Bit 2 = Starter 3 - reverse Bit 3 = Starter 4 - reverse								
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	64h	63h	C0h	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 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	1802	64h	13h	66h	2

Table 13.2: 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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