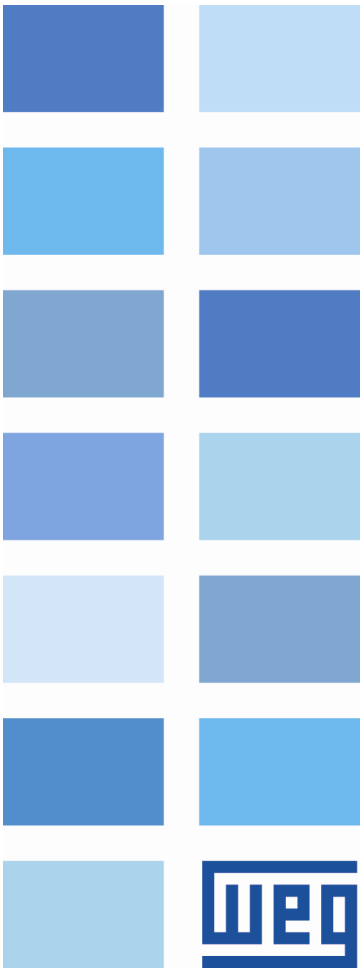
Modbus RTU

RUW100

User's Guide



Modbus RTU User's Guide

Series: RUW100

Language: English

Document: 10008296611 / 00

Build 691

Publication Date: 05/2021

The information below describes the reviews made in this manual.

Version	Revision	Description
V2.0X	R00	First edition

CONTENTS

ABOUT THE MANUAL

This manual supplies the necessary information for the operation of the RUW100 Remote Unit using the Modbus RTU protocol. This manual must be used together with the RUW100 user's manual and programming manual.

ABBREVIATIONS AND DEFINITIONS

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

NUMERICAL REPRESENTATION

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

DOCUMENTS

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

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

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

1 MAIN CHARACTERISTICS

Below are the main characteristics for Modbus RTU communication of the Remote Unit RUW100.

- Interface according to EIA/TIA-485 standard.
- Interface galvanically insulated and with differential signal, providing more robustness against electromagnetic interference.
- It allows the device to operate as Modbus RTU slave.
- Allows data communication for equipment operation and parameterization.
- Enables communication using baud rates from 9600 up to 76800 Kbit/s.
- It allows the connection of up to 32 devices to the same segment. More devices can be connected by using repeaters.
- Maximum bus length of 1000 meters.

2 MODBUS COMMUNICATION INTRODUCTION

The Modbus protocol was initially developed in 1979 by Modicon. Nowadays, it is a widely spread open protocol, used by several manufactures in many equipments. It is a protocol of application layer for communication between devices, especially used by industrial automation systems.

2.1 MESSAGE STRUCTURE

Modbus is a protocol based on transactions, which consist of a request followed by a response. Every communication begins with the client (master) making a request to a server (slave), which answers what has been asked.

The communication is based on a packet called PDU (Protocol Data Unit) which is defined by the specification of the protocol in three types:

- Request PDU:
  Function Code: specifies the kind of service or function requested.
  Function Data: specific function data.
- Response PDU:
  Function Code: code of the function corresponding to the request.
  Response Data: specific function data.
- Exception PDU:
  Error Code: function code corresponding to the request with the most significant bit set.
  Exception Code: code specifying the exception.

A transaction can be viewed in figure 2.1.

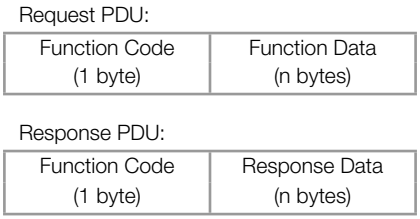


Figure 2.1: *Modbus transaction*

The function code field specifies the kind of service or function requested to the server (reading, writing, etc.). For the list of available functions to access data, refer to item 6.1.

According to the protocol, each function is used to access a specific type of data. Table 2.1 contains the basic types defined in the specification.

Table 2.1: *Modbus data type*

Name	Size	Access
Discrete Input	1 bit	Read Only
Discrete Output (Coils)	1 bit	Read and Write
Input Registers	16 bits	Read Only
Holding Registers (Registers)	16 bits	Read and Write

Each implantation of the Modbus protocol can add to the PDU specific data for the proper processing of the messages through the interface used.

2.2 MODBUS RTU

Two transmission modes are defined in the Modbus protocol specification for the serial interface: ASCII and RTU. These modes define the way the message bytes are transmitted. It is not possible to use the two transmission modes in the same network. The RUW100 Remote Unit uses only the RTU mode for the telegram transmission.

It allows up to 247 slaves, but only one master.

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

Modbus RTU telegram format:

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

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

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

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

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

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

Table 2.2: *Communication rates and the time periods involved in the telegram transmission*

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

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

3 INTERFACE DESCRIPTION

The RUW100 Remote Unit uses the RS485 accessory to provide a Modbus RTU interface for communication. Characteristics of this interface are described next.

3.1 RS485 INTERFACE

- Interface according to EIA/TIA-485 standard.
- Interface galvanically insulated and with differential signal, providing more robustness against electromagnetic interference.
- It allows the device to operate as Modbus RTU slave.
- Allows data communication for equipment operation and parameterization.
- Enables communication using baud rates from 9600 up to 76800 Kbit/s.
- It allows the connection of up to 32 devices to the same segment. More devices can be connected by using repeaters.
- Maximum bus length of 1000 meters.

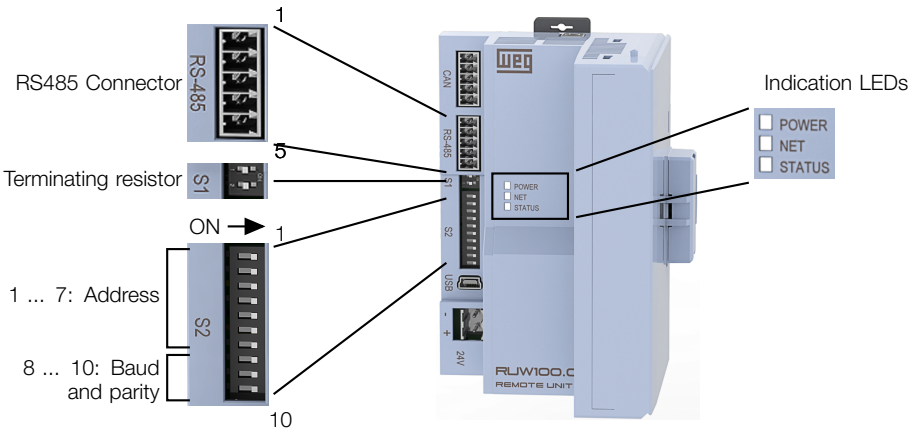


Figure 3.1: *Connector, indications and configurations for RUW100*

3.2 CONNECTOR

The RS485 interface is available through a 5-way plug-in connector with the following pin assignment:

Table 3.1: *Pin assignment of connector for RS485*

Pin	Name	Function
1	GND	0V isolated from the RS485 circuit, used to enable the connection of this point to the reference 0V of the other network devices.
2	+B	RxD/TxD positive.
3	-A	RxD/TxD negative.
4	NC	Not connected.
5	Shield	Connection to the protective earth, normally used to connect the shield of the communication cable.

3.3 ADDRESS

The RUW100 Remote Unit has two methods to program the Modbus RTU address.

- Using keys 1 to 7 from DIP switch S2. It is possible to program valid addresses from 1 to 127, as shown in table 3.2.
- Using product parameters. If it is not desired to use addressing via keys, or if an address above 127 is required, it is possible to program the product to use the address defined by parameters.

Table 3.2: *DIP switch S2 configuration for address programming*

DIP settings (DIP1 ... DIP7)	Address	Configuration
0 0 0 0 0 0 0	0	Invalid setting
1 0 0 0 0 0 0	1	Modbus Address
0 1 0 0 0 0 0	2	Modbus Address
1 1 0 0 0 0 0	3	Modbus Address
0 0 1 0 0 0 0	4	Modbus Address
1 0 1 0 0 0 0	5	Modbus Address
0 1 1 0 0 0 0	6	Modbus Address
1 1 1 0 0 0 0	7	Modbus Address
0 0 0 1 0 0 0	8	Modbus Address
...	...	...
1 1 1 1 1 1 1	127	Modbus Address

NOTE!

- For the changes in this setting be effective, the equipment must be powered off and on again.
- The same keys that program the address and baud rate for the Modbus RTU protocol also program these functions for the CANopen network. If it is desired that the product has different configurations for each protocol, it is necessary to program Modbus RTU address and baud rate through the parameters present in the product.

3.4 BAUD RATE AND PARITY

The RUW100 Remote Unit has two methods to program the Modbus RTU baud rate, parity and stop bits.

- Using keys 8 to 10 from DIP switch S2. According to the combination set, this configuration is programmed as indicated in the table 3.3.
- Using product parameters. If it is not desired to use configuration via keys, or if an desired configuration is not possible to adjust via keys, it is possible to program the product to use the configuration defined by parameters.

Table 3.3: *Configuration of switch S2 for programming the baud rate*

DIP settings (DIP8 ... DIP10)	Value	Baud rate	Parity and stop bits
0 0 0	00	9600 bit/s	No parity, 2 stop bits
1 0 0	01	19200 bit/s	No parity, 2 stop bits
0 1 0	02	38400 bit/s	No parity, 2 stop bits
1 1 0	03	57600 bit/s	No parity, 2 stop bits
0 0 1	04	76800 bit/s	No parity, 2 stop bits
1 0 1	05	9600 bit/s	Even parity, 1 stop bit
0 1 1	06	19200 bit/s	Even parity, 1 stop bit
1 1 1	07	38400 bit/s	Even parity, 1 stop bit

NOTE!

- For the changes in this setting be effective, the equipment must be powered off and on again.
- Even if it is programmed to use 2 stop bits, the product is tolerant for communication with other equipment that uses only 1 stop bit, so it should be possible to communicate with a Modbus RTU master configured for 1 stop bit.
- The same keys that program the address and baud rate for the Modbus RTU protocol also program these functions for the CANopen network. If it is desired that the product has different configurations for each protocol, it is necessary to program Modbus RTU address and baud rate through the parameters present in the product.

3.5 TERMINATING RESISTOR

The product has DIP switch S1 that can be activated to enable the termination resistor according to figure 3.1. The configurations of the switch to enable the termination resistor are shown in table 3.4.

Table 3.4: *Configurations of the switch S1 to enable the termination resistor*

Switch Setting	Option
SW.1 = OFF and SW.2 = OFF	RS485 termination off
SW.1 = ON and SW.2 = ON	RS485 termination on
SW.1 = OFF and SW.2 = ON	Combination not allowed
SW.1 = ON and SW.2 = OFF	

3.6 INDICATION LEDS

The Remote Unit RUW100 has a bicolor LED (green and red), as shown in figure 3.1, which indicates the status of the communication. For the indication to occur for the protocol Modbus RTU, it is necessary to configure P0628 - LED NET - Configuration with the value one.

The table below show the behavior of this LED depending on the state of the Remote Unit:

Table 3.5: *NET LED*

Indication	Description
Green, flashing	Flashes green whenever a response telegram by the slave is transmitted to the network.
Red, flashing	Flashes red to indicate data reception error on the RS485 interface.
Red, solid	Timeout error when waiting for communication via Modbus RTU.

4 INSTALLATION OF THE EQUIPMENT IN NETWORK

For the connection of the Remote Unit RUW100 using the RS485 interface, the following points must be observed:

4.1 COMMUNICATION RATE

The RS485 interfaces of the RUW100 Remote Unit can communicate using the rates defined on the table 4.1.

Table 4.1: *Supported baud rates*

Baud Rate
9600 bit/s
19200 bit/s
38400 bit/s
57600 bit/s
76800 bit/s

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

4.2 ADDRESS IN THE MODBUS RTU NETWORK

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

4.3 TERMINATION RESISTOR

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

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

4.4 CABLES

Recommended characteristics of the cable used in the installation:

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

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

4.5 CONNECTION IN THE NETWORK

In order to interconnect the several network nodes, it is recommended to connect the equipment directly to the main line without using derivations. During the cable installation the passage near to power cables must be avoided,

because, due to electromagnetic interference, this makes the occurrence of transmission errors possible.

Figure 4.1: *Modbus RTU network installation example*

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

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

4.6 RECOMMENDATIONS FOR GROUNDING AND CABLE PASSAGE

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

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

5 RUW100

Allows access to status and configuration parameters of the main module of RUW100 Remote Unit.

Parameters P000 to P999 refer to the RUW100 network head.
The parameters above P1000 refer to accessories and obey the following logic:

P-x-y-z-w

X-Accessory model as:
1-Digital Models;
3-Analog Inputs (AI, TH, RTD);
5-Analog Outputs;
7-Load cell input.

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

NOTE!
In this manual we will not present the detailed description of the parameters for all intarbus addresses (Slot1, Slot2 ... Slot8) since the description would be the same for any position. For example: if you want to know the description of the P1200, P1300, P1400, P1500, P1600, P1700 or P1800, just see the description of the P1100.

NOTE!
RUW100 parameters by default **are not retentive**. In order for a parameter or configuration to be kept after the remote is turned off, it is necessary to save the parameters in Flash memory through P204. This is generally not necessary as the configuration is mostly done by the network master.

NOTE!
The complete list of parameters can be seen in Appendix A.

RUW100.1 STATUS

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

RUW100.1.3 CAN

Parameter for status and monitoring of CAN interface an CANopen protocol.

RUW100.1.3 CAN
P0600: CAN - Address
Range: 1 ... 127 **Default:** 2

Description:
It allows viewing the address configured for CAN communication, programmed using switches 1 to 7 on DIP switch S2.

RUW100.1.3 CAN
P0601: CAN - Baudrate
Range: 0 ... 7 **Default:** 0

Description:
It allows viewing the value of the baud rate for the CAN interface, programmed using switches 8 to 10 in DIP switch S2, in bits per second.

Indication	Description
0 = 1 Mbit/s	CAN baud rate.
1 = 800 Kbit/s	CAN baud rate.
2 = 500 Kbit/s	CAN baud rate.
3 = 250 Kbit/s	CAN baud rate.
4 = 125 Kbit/s	CAN baud rate.
5 = 100 Kbit/s	CAN baud rate.
6 = 50 Kbit/s	CAN baud rate.
7 = 20 Kbit/s	CAN baud rate.

RUW100.1.3 CAN
P0605: CAN - Controller Status
Range: 0 ... 5 **Default:** 0

Description:
It allows identifying if the CAN interface is enabled and if the communication presents errors.

Indication	Description
0 = Disable	Inactive CAN interface.
1 = Auto-baud	-
2 = CAN Enabled	CAN interface is active and without errors.
3 = Warning	CAN controller has reached the warning state.
4 = Error Passive	CAN controller has reached the error passive state.
5 = Bus Off	CAN controller has reached the bus off state.

RUW100.1.3 CAN
P0606: CAN - RX CAN Telegrams
Range: 0 ... 65535 **Default:** 0

Description:
This parameter works as a cyclic counter that is incremented every time a CAN telegram is received. It informs the operator if the device is being able to communicate with the network.

RUW100.1.3 CAN

P0607: CAN - TX CAN Telegrams

Range: 0 ... 65535 **Default:** 0

Description:
This parameter works as a cyclic counter that is incremented every time a CAN telegram is transmitted. It informs the operator if the device is being able to communicate with the network.

RUW100.1.3 CAN

P0608: CAN - Bus Off counter

Range: 0 ... 65535 **Default:** 0

Description:
It is a cyclic counter that indicates the number of times the device entered the bus off state in the CAN network.

RUW100.1.3 CAN

P0609: CAN - Lost Telegrams

Range: 0 ... 65535 **Default:** 0

Description:
It is a cyclic counter that indicates the number of messages received by the CAN interface, but could not be processed by the device. In case that the number of lost messages is frequently incremented, it is recommended to reduce the baud rate used in the CAN network.

RUW100.1.3 CAN

P0610: CAN - CANopen Communication Status

Range: 0 ... 5 **Default:** 0

Description:
It indicates the device state regarding the CANopen network, informing if the protocol has been enabled and if the error control service is active (Node Guarding or Heartbeat).

Indication	Description
0 = Disabled	CANopen protocol disabled.
1 = Reserved	-
2 = Comm Enabled	Communication enabled.
3 = Error Ctrl. Enab.	Communication enabled and error control service enabled (Node Guarding/Heartbeat).
4 = Guarding Error	Node Guarding error occurred.
5 = Heartbeat Error	Heartbeat error occurred.

RUW100.1.3 CAN

P0611: CAN - CANopen Slave Status

Range: 0 ... 4 **Default:** 0

Description:
Each slave in the CANopen network has a state machine that controls its behavior regarding the communication. This parameter indicates in which state the device is.

Indication	Description
0 = Disabled	CANopen protocol disabled.
1 = Initialization	Communication with the device is not possible during this stage, which is concluded automatically.
2 = Stopped	Only the NMT object is available.
3 = Operational	All the communication objects are available.
4 = PreOperational	It is already possible to communicate with the slave but its PDOs are not yet available for operation.

RUW100.2 CONFIGURATION

Allows accessing to write variables of the main module of RUW100 Remote Unit.

RUW100.2.2 Communication

It allows configuring the communication for RUW100 Remote Unit.

RUW100.2.2 Communication
P0625: RS485 - Configuration Source
Range: 0 ... 1 **Default:** 0

Description:
It allows to choose which should be the source fot the address, baud rate and parity for the RS485 interface: parameter or key.

The product has setup keys for RS485 interface. However, these keys configure both RS485 and CAN interfaces, and they allow to program limited values for the address and byte configuration for the RS485 interface.

If it is necessary to have different setup for the CAN and RS485 interface, or if the desired configuration for the RS485 interface is not one of the options available through the keys, then it is possible to program the product to use the configuration parameters of the RS485 interface instead of the keys.

Indication	Description
0 = Switch	Slave address, baud rate and parity for the RS485 interface are configured via DIP switch S2.
1 = Parameter	Slave address, baud rate and parity for the RS485 interface are configured using the parameters P0627 and P0626. In this case, the DIP value S2 is disregarded for the RS485 interface.

RUW100.2.2 Communication
P0627: RS485 - Address via Parameter
Range: 0 ... 247 **Default:** 0

Description:
It allows programming the address used for the RS485 interface.

t is only valid if the product is configured to use the address programming source by parameters (P0625).

RUW100.2.2 Communication
P0626: RS485 - Baud/Bytes Config. via Param.
Range: 0 ... 15 **Default:** 0

Description:
It allows programming the baud rate, parity and stop bits for the RS485 interface, in bits per second. This configuration must be identical for all the devices connected to the network.

t is only valid if the product is configured to use the address programming source by parameters (P0625).

Indication	Description
0 = 9600 bit/s No parity, 2 stop bits	Baud rate, parity and stop bits configuration.
1 = 19200 bit/s No parity, 2 stop bits	Baud rate, parity and stop bits configuration.
2 = 38400 bit/s No parity, 2 stop bits	Baud rate, parity and stop bits configuration.
3 = 57600 bit/s No parity, 2 stop bits	Baud rate, parity and stop bits configuration.
4 = 76800 bit/s No parity, 2 stop bits	Baud rate, parity and stop bits configuration.
5 = 9600 bit/s Even parity, 1 stop bit	Baud rate, parity and stop bits configuration.
6 = 19200 bit/s Even parity, 1 stop bit	Baud rate, parity and stop bits configuration.
7 = 38400 bit/s Even parity, 1 stop bit	Baud rate, parity and stop bits configuration.
8 = 57600 bit/s Even parity, 1 stop bit	Baud rate, parity and stop bits configuration.
9 = 76800 bit/s Even parity, 1 stop bit	Baud rate, parity and stop bits configuration.
10 = 9600 bit/s Odd parity, 1 stop bit	Baud rate, parity and stop bits configuration.
11 = 19200 bit/s Odd parity, 1 stop bit	Baud rate, parity and stop bits configuration.
12 = 38400 bit/s Odd parity, 1 stop bit	Baud rate, parity and stop bits configuration.
13 = 57600 bit/s Odd parity, 1 stop bit	Baud rate, parity and stop bits configuration.
14 = 76800 bit/s Odd parity, 1 stop bit	Baud rate, parity and stop bits configuration.
15 = Reserved	Reserved.

NOTE!
Even if it is programmed to use 2 stop bits, the product is tolerant for communication with other equipment that uses only 1 stop bit, and should be possible to use with a Modbus RTU master set to 1 stop bit.

RUW100.2.2 Communication

P0623: RS485 - Watchdog time

Range: 0.0 ... 6553.5 s **Default:** 0.0

Description:
Protection against fault in the RS485 communication.

In case the product does not receive valid telegrams for a period longer than the setting, a communication error will be indicated and the action programmed in P624 will be executed.

Time will start counting from the first valid telegram received.

RUW100.2.2 Communication

P0624: Action for Communication Fault

Range: 0 ... 1 **Default:** 1

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

Indication	Description
0 = No Action	No tripping.
1 = According to Error Mode	Put the product outputs as programmed in the error mode of each output.

6 OPERATION IN THE MODBUS RTU NETWORK – SLAVE MODE

The RUW100 Remote Unit has the following characteristics when operated as a slave in Modbus RTU network:

- Network connection via RS485 serial interface.
- Address, communication rate and byte format defined by equipment parameters.
- It allows the RUW100 Remote Unit programming and control via the access to parameters.

6.1 AVAILABLE FUNCTIONS

In the Modbus specification are defined the functions used to access different types of data. In the RUW100, in order to access those data the following services (or functions) have been made available:

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
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

6.2 MEMORY MAP

The Remote Unit RUW100 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.

6.2.1 Parameters

The RUW100 Remote Unit Modbus communication is based on the reading/writing of the equipment parameters. All parameters of the equipment are available as 16-bit holding registers. The data addressing is done with the offset equal to zero, which means that the parameter's network address (Net Id) corresponds to the register address.

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):

- P0900: RUW100 - Read Digital Inputs (DIs) (holding register address 900).

Command (writing):

- P0902: RUW100 - Write Digital Outputs (DOs) (holding register address 902).

Refer to the item A for a complete parameter list of the equipment.

NOTE!

- Depending on the master 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 master for a parameter is the address showed in the table A added to the base address. Refer to the master 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.
- The data is transmitted as an integer value, without the indication of the decimal places.

6.2.2 Markers of the SoftPLC

The Remote Unit RUW100 makes available memory markers for data access.

Parameters – %CB / %CW / %CD / %SB / %SW / %SD

Markers that represent data related to the parameters of the Remote Unit RUW100 they are used for indication of status, monitoring, configuration and control of equipment functions.

- Access: read and write.
- Data type: holding register.
- Modbus access functions: 03, 06 e 16.
- Modbus address range for access via holding register: 99 ... 7845.

System Markers – %SB

The system markers represent the data of the Remote Unit RUW100 used for indication of status and monitoring of the equipment functions.

- Access: read only.
- Data type: input discrete.
- Modbus access functions: 02.
- Modbus address range for access via input discrete: 0 ... 4.

Volatile Memory Markers – %MW / %MD / %MB

The volatile memory markers are general-purpose data of the Remote Unit RUW100 used for in ladder programmation.

- Access: read and write.
- Data type: holding register or coil.
- Modbus access functions: 01, 03, 05, 06, 15 e 16.
- Modbus address range for access via holding register: 18000 ... 20047.
- Modbus address range for access via coil: 40000 ... 49999.

Retentive Memory Markers – %MW / %MD / %MB

The retentive memory markers are general-purpose data of the Remote Unit RUW100 used for in ladder programmation.

- Access: read and write.
- Data type: holding register or coil.
- Modbus access functions: 01, 03, 05, 06, 15 e 16.

- Modbus address range for access via input register: 28000 ... 28127.
- Modbus address range for access via via input discrete: 50000 ... 52040.

Digital outputs – %QB

The markers that represent data related to the available digital outputs in the Remote Unit RUW100.

- Access: read and write.
- Data type: coil.
- Modbus access functions: 01, 05 e 15.
- Modbus address range for access via coil: 16000 ... 17047.

Digital inputs – %IB

The markers that represent data related to the available digital inputs in the Remote Unit RUW100.

- Access: read only.
- Data type: input discrete.
- Modbus access functions: 02.
- Modbus address range for access via input discrete: 16000 ... 17047.

6.3 DATA ACCESS

The Modbus protocol allows the access only by bits or by 16-bit 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-bit register, the most significant byte (MSB) must be transmitted first. Therefore, if four registers are read in a row, from the register with address 0, the content of each register will be transmitted the following way:

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

6.4 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 slave may detect problems and send an error message, indicating the kind of problem found:

Table 6.2: *Error codes for Modbus*

Error Code	Description
1	Invalid function: the requested function is not implemented for the equipment.
2	Invalid data address: the data address (register or bit) does not exist.
3	Invalid data value: ▪ Value out of the allowed range. ▪ Writing on data that cannot be changed (read only register or bit).

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.

7 STARTUP GUIDE

The main steps to start up the RUW100 Remote Unit on Modbus TCP network are described below. These steps represent an example of use. Check out the specific chapters for details on the indicated steps.

7.1 INSTALLING THE ACCESSORY

1. Install the product on Modbus TCP network and perform the necessary operation settings as indicated in the item 3.
2. Connect the cables, considering the recommended instructions in network installation, as described in item 4:
   - Use shielded cable.
   - Properly ground network equipment.
   - Avoid laying communication cables next to power cables.

7.2 CONFIGURING THE EQUIPMENT

1. Follow the recommendations described in the user manual to program the device parameters related to desired functions for the I/O signals, etc.
2. Configure communication settings, such as address, baudrate, parity, etc., using DIPs or parameters.
3. Configure the timeout for the Modbus RTU communication in P0623 RS485 - Watchdog time.
4. Program the desired action for the equipment in case of communication fault in P0624 Action for Communication Fault.
5. Define which data will be read and written at Remote Unit RUW100, based on its parameter list. Among the main parameters that can be used to control the device, we can mention:
   - P0900 RUW100 - Read Digital Inputs (DIs) (read).
   - P0902 RUW100 - Write Digital Outputs (DOs) (write).

NOTE!
The necessary settings for the product can be made in different ways. Some options are:
- On the bench or in the place of use, using a computer with the WPS software, create a project for the RUW100 Remote Unit, individually connect the computer to the product's RS485 interface, or USB interface, and write the configuration. If necessary, use a USB-RS485 adapter for the computer.
- If the network master allows, use the Modbus RTU master itself to write the product configuration parameters via the RS485 interface during the application configuration step.
- The network master can be programmed to write the settings cyclically, so that, even if the product is replaced, the new product will be properly configured for the application.

7.3 CONFIGURING THE MASTER

The way the network configuration is done depends greatly on the used master 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 master to access the holding registers, based on the defined equipment parameters to read and write. The register address is based on the parameter's network address (Net Id), as shown in the item A.

2. It is recommended that reading and writing are done in a cyclic manner, allowing detection of communication errors by timeout. The period of data update must be in accordance with the value programmed in parameter P0623 RS485 - Watchdog time.

APPENDIX A QUICK REFERENCES

Table A.2: *Parameters quick reference*

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
RUW100.1 RUW100\Status					
RUW100.1.1	Ladder				
P0099	Ladder - Program status	0 = Stopped 1 = Running 2 = No program 3 = Invalid 4 = Installing	-	ro, enum	99
RUW100.1.2	Errors and Faults				
P0100	Last Fault - 1 Last Fault - 2 Last Fault - 3 Last Fault - 4 Last Fault - 5	0 = NO ERROR 1 = RS485 SERIAL WATCHDOG 2 = CAN WARNING 3 = CAN ERROR PASSIVE 4 = CAN BUS OFF 5 = CAN NO BUS POWER 6 = CAN INIT ERROR 7 = CAN ERROR ENABLE 8 = CANOPEN NODE GUARD ERROR 9 = CANOPEN HEARTBEAT ERROR 10 ... 13 = INTERNAL ERROR 14 = RETENTIVE MEMORY 15 = FLASH MEMORY 50% 16 = FLASH MEMORY 100% 17 = NUMBER OF ACCESSORIES EXCEEDED 18 = INTRABUS ADDRESSING ERROR 19 = INTRAUBS IDENTIFICATION ERROR 20 = INTERNAL ERROR 21 = IDENTIFICATION ERROR SLOT 1 22 = IDENTIFICATION ERROR SLOT 2 23 = IDENTIFICATION ERROR SLOT 3 24 = IDENTIFICATION ERROR SLOT 4 25 = IDENTIFICATION ERROR SLOT 5 26 = IDENTIFICATION ERROR SLOT 6 27 = IDENTIFICATION ERROR SLOT 7 28 = IDENTIFICATION ERROR SLOT 8 29 ... 30 = INTERNAL ERROR 31 = INTRABUS TIMEOUT SLOT 1 32 = INTRABUS TIMEOUT SLOT 2 33 = INTRABUS TIMEOUT SLOT 3 34 = INTRABUS TIMEOUT SLOT 4 35 = INTRABUS TIMEOUT SLOT 5 36 = INTRABUS TIMEOUT SLOT 6	-	ro, enum	100 101 102 103 104

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		37 = INTRABUS TIMEOUT SLOT 7 38 = INTRABUS TIMEOUT SLOT 8 39 ... 40 = INTERNAL ERROR 41 = INTRABUS CRC ERROR SLOT 1 42 = INTRABUS CRC ERROR SLOT 2 43 = INTRABUS CRC ERROR SLOT 3 44 = INTRABUS CRC ERROR SLOT 4 45 = INTRABUS CRC ERROR SLOT 5 46 = INTRABUS CRC ERROR SLOT 6 47 = INTRABUS CRC ERROR SLOT 7 48 = INTRABUS CRC ERROR SLOT 8 49 ... 50 = Reserved 51 = INTRABUS COOMAND ERROR SLOT 1 52 = INTRABUS COOMAND ERROR SLOT 2 53 = INTRABUS COOMAND ERROR SLOT 3 54 = INTRABUS COOMAND ERROR SLOT 4 55 = INTRABUS COOMAND ERROR SLOT 5 56 = INTRABUS COOMAND ERROR SLOT 6 57 = INTRABUS COOMAND ERROR SLOT 7 58 = INTRABUS COOMAND ERROR SLOT 8 59 ... 70 = INTERNAL ERROR			
P0105	Last Alarm - 1 Last Alarm - 2 Last Alarm - 3 Last Alarm - 4 Last Alarm - 5	0 = NO ERROR 1 = RS485 SERIAL WATCHDOG 2 = CAN WARNING 3 = CAN ERROR PASSIVE 4 = CAN BUS OFF 5 = CAN NO BUS POWER 6 = CAN INIT ERROR 7 = CAN ERROR ENABLE 8 = CANOPEN NODE GUARD ERROR 9 = CANOPEN HEARTBEAT ERROR 10 ... 13 = INTERNAL ERROR 14 = RETENTIVE MEMORY 15 = FLASH MEMORY 50% 16 = FLASH MEMORY 100% 17 = NUMBER OF ACCESSORIES EXCEEDED 18 = INTRABUS ADDRESSING ERROR	-	ro, enum	105 106 107 108 109

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		19 = INTRAUBS IDENTIFICATION ERROR 20 = INTERNAL ERROR 21 = IDENTIFICATION ERROR SLOT 1 22 = IDENTIFICATION ERROR SLOT 2 23 = IDENTIFICATION ERROR SLOT 3 24 = IDENTIFICATION ERROR SLOT 4 25 = IDENTIFICATION ERROR SLOT 5 26 = IDENTIFICATION ERROR SLOT 6 27 = IDENTIFICATION ERROR SLOT 7 28 = IDENTIFICATION ERROR SLOT 8 29 ... 30 = INTERNAL ERROR 31 = INTRABUS TIMEOUT SLOT 1 32 = INTRABUS TIMEOUT SLOT 2 33 = INTRABUS TIMEOUT SLOT 3 34 = INTRABUS TIMEOUT SLOT 4 35 = INTRABUS TIMEOUT SLOT 5 36 = INTRABUS TIMEOUT SLOT 6 37 = INTRABUS TIMEOUT SLOT 7 38 = INTRABUS TIMEOUT SLOT 8 39 ... 40 = INTERNAL ERROR 41 = INTRABUS CRC ERROR SLOT 1 42 = INTRABUS CRC ERROR SLOT 2 43 = INTRABUS CRC ERROR SLOT 3 44 = INTRABUS CRC ERROR SLOT 4 45 = INTRABUS CRC ERROR SLOT 5 46 = INTRABUS CRC ERROR SLOT 6 47 = INTRABUS CRC ERROR SLOT 7 48 = INTRABUS CRC ERROR SLOT 8 49 ... 50 = Reserved 51 = INTRABUS COOMAND ERROR SLOT 1 52 = INTRABUS COOMAND ERROR SLOT 2 53 = INTRABUS COOMAND ERROR SLOT 3 54 = INTRABUS COOMAND ERROR SLOT 4 55 = INTRABUS COOMAND ERROR SLOT 5 56 = INTRABUS COOMAND ERROR SLOT 6 57 = INTRABUS COOMAND ERROR SLOT 7 58 = INTRABUS COOMAND ERROR SLOT 8 59 ... 70 = INTERNAL ERROR			
RUW100.1.3	CAN				
P0600	CAN - Address	1 to 127	-	ro, 16bit	600
P0601	CAN - Baudrate	0 = 1 Mbit/s 1 = 800 Kbit/s	-	ro, enum	601

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		2 = 500 Kbit/s 3 = 250 Kbit/s 4 = 125 Kbit/s 5 = 100 Kbit/s 6 = 50 Kbit/s 7 = 20 Kbit/s			
P0605	CAN - Controller Status	0 = Disable 1 = Auto-baud 2 = CAN Enabled 3 = Warning 4 = Error Passive 5 = Bus Off	-	ro, enum	605
P0606	CAN - RX CAN Telegrams	0 to 65535	-	ro, 16bit	606
P0607	CAN - TX CAN Telegrams	0 to 65535	-	ro, 16bit	607
P0608	CAN - Bus Off counter	0 to 65535	-	ro, 16bit	608
P0609	CAN - Lost Telegrams	0 to 65535	-	ro, 16bit	609
P0610	CAN - CANopen Communication Status	0 = Disabled 1 = Reserved 2 = Comm Enabled 3 = Error Ctrl. Enab. 4 = Guarding Error 5 = Heartbeat Error	-	ro, enum	610
P0611	CAN - CANopen Slave Status	0 = Disabled 1 = Initialization 2 = Stopped 3 = Operational 4 = PreOperational	-	ro, enum	611
RUW100.1.4	RS485				
P0620	RS485 - Current Address	1 to 247	-	ro, 8bit	620
P0621	RS485 - Current Baudrate	0 = 9600 bit/s 1 = 19200 bit/s 2 = 38400 bit/s 3 = 57600 bit/s 4 = 76800 bit/s	-	ro, enum	621
P0622	RS485 - Current Bytes Configuration	0 = no parity, 2 stop bits 1 = even parity, 1 stop bit 2 = odd parity, 1 stop bit	-	ro, enum	622
RUW100.1.5	Firmware Version/Revision/Model				
P0401	Model (RUW)	0 = RUW100.0 - 00DO/00DI 1 = RUW100.1 - 08DO/16DI 2 = RUW100.2 - 10DO/14DI	-	ro, enum	401
P0402	Models (SLOTS) - 1 Models (SLOTS) - 2		-	ro, enum	402 403

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Models (SLOTS) - 3 Models (SLOTS) - 4 Models (SLOTS) - 5 Models (SLOTS) - 6 Models (SLOTS) - 7 Models (SLOTS) - 8	5 = MOD03.00 - 8 AO 6 = MOD03.10 - 8 AO 7 = MOD07.00 - 6RE 16 = MOD1.00 - 24DI 17 = MOD1.10 - 24DO 18 = MOD1.30 - 08DO/16DI 19 = MOD1.20 - 16DO/08DI 128 = MOD02.00 - 7 AI 129 = MOD04.00 - 7 TH 130 = MOD05.00 - 4 RTD 131 = MOD06.00 - 2 SG 255 = Not Connected			404 405 406 407 408 409
P0500	Firmware Version (RUW)	0.0 to 19.99	-	ro, 16bit	500
P0501	Firmware Version (SLOTS) - 1 Firmware Version (SLOTS) - 2 Firmware Version (SLOTS) - 3 Firmware Version (SLOTS) - 4 Firmware Version (SLOTS) - 5 Firmware Version (SLOTS) - 6 Firmware Version (SLOTS) - 7 Firmware Version (SLOTS) - 8	0.0 to 19.99	-	ro, 16bit	501 502 503 504 505 506 507 508
P0520	Firmware Revision (RUW)	-32768 to 32767	-	ro, s16bit	520
P0540	Bootloader Version	20.0 to 60.0	-	ro, 16bit	540
P0560	Product Serial Number	0 to 4294967295	-	ro, 32bit	560
P0400	Number Slots	0 to 255	-	ro, 8bit	400
RUW100.1.6	Scan/Tick				
P0700	Tick 100us	0 to 4294967295	-	ro, 32bit	700
P0702	Scan Cycle	0.0 to 6553.5	-	ro, 16bit	702
RUW100.1.7	Read Inputs (DIs)				
P0900	RUW100 - Read 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	-	ro, 32bit	900

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		Bit 13 = DI14 Bit 14 = DI15 Bit 15 = DI16			
		RUW100.2 RUW100\Configuration			
RUW100.2.1	Flash				
P0204	Load Parameters	0 = External Flash Memory 1 = Save Parameters to Flash 2 = Load Parameters From Flash 3 = Reset RUW100 4 = Load Factory Default 5 = Reconfigure Expansions	0	rw, enum	204
RUW100.2.2	Communication				
P0625	RS485 - Configuration Source	0 = Switch 1 = Parameter	0	rw, enum	625
P0627	RS485 - Address via Parameter	0 to 247	0	rw, 8bit	627
P0626	RS485 - Baud/Bytes Config. via Param.	0 = 9600 bit/s No parity, 2 stop bits 1 = 19200 bit/s No parity, 2 stop bits 2 = 38400 bit/s No parity, 2 stop bits 3 = 57600 bit/s No parity, 2 stop bits 4 = 76800 bit/s No parity, 2 stop bits 5 = 9600 bit/s Even parity, 1 stop bit 6 = 19200 bit/s Even parity, 1 stop bit 7 = 38400 bit/s Even parity, 1 stop bit 8 = 57600 bit/s Even parity, 1 stop bit 9 = 76800 bit/s Even parity, 1 stop bit 10 = 9600 bit/s Odd parity, 1 stop bit 11 = 19200 bit/s Odd parity, 1 stop bit 12 = 38400 bit/s Odd parity, 1 stop bit 13 = 57600 bit/s Odd parity, 1 stop bit 14 = 76800 bit/s Odd parity, 1 stop bit 15 = Reserved	0	rw, enum	626
P0623	RS485 - Watchdog time	0.0 to 6553.5 s	0.0 s	rw, 16bit	623
P0624	Action for Communication Fault	0 = No Action 1 = According to Error Mode	1	rw, enum	624
P0602	CAN - Bus Off Reset	0 = Manual 1 = Automatic	0	rw, enum	602
RUW100.2.3	Digital Input/Output				
P0904	RUW100 - Error Mode Output	0 to 4294967295	0	rw, 32bit	904
P0906	RUW100 - Error Value	0 to 4294967295	0	rw, 32bit	906
RUW100.2.4	Write Outputs (DOs)				
P0902	RUW100 - Write Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02	0	rw, 32bit	902

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		Bit 2 = DO03 Bit 3 = DO04 Bit 4 = DO05 Bit 5 = DO06 Bit 6 = DO07 Bit 7 = DO08 Bit 8 = DO09 Bit 9 = DO10			
RUW100.2.5	Clear Errors				
P0200	Clear Errors	0 to 255	0	rw, 8bit	200
RUW100.2.6	LED				
P0628	LED NET - Configuration	0 = CAN 1 = RS485	0	rw, 8bit	628
RUW100.3 RUW100\User					
P0800	User Parameter - 1 User Parameter - 2 User Parameter - 3 User Parameter - 4 User Parameter - 5 User Parameter - 6 User Parameter - 7 User Parameter - 8 User Parameter - 9 User Parameter - 10 User Parameter - 11 User Parameter - 12 User Parameter - 13 User Parameter - 14 User Parameter - 15 User Parameter - 16 User Parameter - 17 User Parameter - 18 User Parameter - 19 User Parameter - 20	-2147483648 to 2147483647	0	rw, s32bit	800 802 804 806 808 810 812 814 816 818 820 822 824 826 828 830 832 834 836 838
SLOT1.1 Slot 1\Digital Input/Output					
SLOT1.1.1	Write Outputs (DOs)				
P1102	Slot 1 - Write 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	0	rw, 32bit	1102

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		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			
SLOT1.1.2	Read Inputs (DIs)				
P1100	Slot 1 - Read 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	1100
SLOT1.1.3	Configuration				
P1104	Slot 1 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1104
P1106	Slot 1 - Error Value	0 to 4294967295	0	rw, 32bit	1106
		SLOT1.2 Slot 1\Analog Input (AI, TH, RTD)			
SLOT1.2.1	Configuration				
SLOT1.2.1.1	Channel Enable				
P3135	Slot 1 - Analogue Input Channel Enable - 1 Slot 1 - Analogue Input Channel Enable - 2 Slot 1 - Analogue Input Channel Enable - 3 Slot 1 - Analogue Input Channel Enable - 4		1	rw, enum	3135 3136 3137 3138

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 1 - Analogue Input Channel Enable - 5 Slot 1 - Analogue Input Channel Enable - 6 Slot 1 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv			3139 3140 3141
SLOT1.2.1.2	Channel Type				
P3142	Slot 1 - Analogue Input Channel Type - 1 Slot 1 - Analogue Input Channel Type - 2 Slot 1 - Analogue Input Channel Type - 3 Slot 1 - Analogue Input Channel Type - 4 Slot 1 - Analogue Input Channel Type - 5 Slot 1 - Analogue Input Channel Type - 6 Slot 1 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100 1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv	0	rw, enum	3142 3143 3144 3145 3146 3147 3148
SLOT1.2.1.3	Channel Unit				
P3149	Slot 1 - Analogue Input Channel Unit 1 - 1 Slot 1 - Analogue Input Channel Unit 1 - 2 Slot 1 - Analogue Input Channel Unit 1 - 3 Slot 1 - Analogue Input Channel Unit 1 - 4 Slot 1 - Analogue Input Channel Unit 1 - 5 Slot 1 - Analogue Input Channel Unit 1 - 6 Slot 1 - Analogue Input Channel Unit 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	3149 3150 3151 3152 3153 3154 3155
SLOT1.2.1.4	Channel Decimal Digit				
P3156	Slot 1 - Analogue Input Channel Decimal Digit - 1 Slot 1 - Analogue Input Channel Decimal Digit - 2 Slot 1 - Analogue Input Channel Decimal Digit - 3 Slot 1 - Analogue Input Channel Decimal Digit - 4 Slot 1 - Analogue Input Channel Decimal Digit - 5 Slot 1 - Analogue Input Channel Decimal Digit - 6 Slot 1 - Analogue Input Channel Decimal Digit - 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	3156 3157 3158 3159 3160 3161 3162
SLOT1.2.1.5	Channel Filter				
P3163	Slot 1 - Analogue Input Channel Filter - 1 Slot 1 - Analogue Input Channel Filter - 2 Slot 1 - Analogue Input Channel Filter - 3 Slot 1 - Analogue Input Channel Filter - 4 Slot 1 - Analogue Input Channel Filter - 5 Slot 1 - Analogue Input Channel Filter - 6 Slot 1 - Analogue Input Channel Filter - 7	0 = No Filter	4	rw, enum	3163 3164 3165 3166 3167 3168 3169

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values			
SLOT1.2.1.6	Channel Gain				
P3170	Slot 1 - Analogue Input Channel Gain - 1 Slot 1 - Analogue Input Channel Gain - 2 Slot 1 - Analogue Input Channel Gain - 3 Slot 1 - Analogue Input Channel Gain - 4 Slot 1 - Analogue Input Channel Gain - 5 Slot 1 - Analogue Input Channel Gain - 6 Slot 1 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3170 3171 3172 3173 3174 3175 3176
SLOT1.2.1.7	Channel Offset				
P3178	Slot 1 - Analogue Input Channel Offset - 1 Slot 1 - Analogue Input Channel Offset - 2 Slot 1 - Analogue Input Channel Offset - 3 Slot 1 - Analogue Input Channel Offset - 4 Slot 1 - Analogue Input Channel Offset - 5 Slot 1 - Analogue Input Channel Offset - 6 Slot 1 - Analogue Input Channel Offset - 7	-32768 to 32767	0	rw, s16bit	3178 3179 3180 3181 3182 3183 3184
SLOT1.2.2	Status				
SLOT1.2.2.1	Analogue Input 16 Bits				
P3100	Slot 1 - Read Analogue Input 16 bits - 1 Slot 1 - Read Analogue Input 16 bits - 2 Slot 1 - Read Analogue Input 16 bits - 3 Slot 1 - Read Analogue Input 16 bits - 4 Slot 1 - Read Analogue Input 16 bits - 5 Slot 1 - Read Analogue Input 16 bits - 6 Slot 1 - Read Analogue Input 16 bits - 7	-32768 to 32767	-	ro, s16bit	3100 3101 3102 3103 3104 3105 3106
SLOT1.2.2.2	Analogue Channel Status				
P3107	Slot 1 - Analogue Channel Status - 1 Slot 1 - Analogue Channel Status - 2 Slot 1 - Analogue Channel Status - 3 Slot 1 - Analogue Channel Status - 4 Slot 1 - Analogue Channel Status - 5 Slot 1 - Analogue Channel Status - 6 Slot 1 - Analogue Channel Status - 7	0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	3107 3108 3109 3110 3111 3112 3113
SLOT1.3 Slot 1\Analog Output					
SLOT1.3.1	Configuration				
SLOT1.3.1.1	Error Mode				
P5108	Slot 1 - Analogue Output Error Mode - 1 Slot 1 - Analogue Output Error Mode - 2 Slot 1 - Analogue Output Error Mode - 3	0 to 255	0	rw, 8bit	5108 5109 5110

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 1 - Analogue Output Error Mode - 4 Slot 1 - Analogue Output Error Mode - 5 Slot 1 - Analogue Output Error Mode - 6 Slot 1 - Analogue Output Error Mode - 7 Slot 1 - Analogue Output Error Mode - 8				5111 5112 5113 5114 5115
SLOT1.3.1.2	Error Value				
P5116	Slot 1 - Analogue Output Error Value - 1 Slot 1 - Analogue Output Error Value - 2 Slot 1 - Analogue Output Error Value - 3 Slot 1 - Analogue Output Error Value - 4 Slot 1 - Analogue Output Error Value - 5 Slot 1 - Analogue Output Error Value - 6 Slot 1 - Analogue Output Error Value - 7 Slot 1 - Analogue Output Error Value - 8	-32768 to 32767	0	rw, s16bit	5116 5117 5118 5119 5120 5121 5122 5123
SLOT1.3.1.3	Channel Gain				
P5132	Slot 1 - Analogue Output Channel Gain - 1 Slot 1 - Analogue Output Channel Gain - 2 Slot 1 - Analogue Output Channel Gain - 3 Slot 1 - Analogue Output Channel Gain - 4 Slot 1 - Analogue Output Channel Gain - 5 Slot 1 - Analogue Output Channel Gain - 6 Slot 1 - Analogue Output Channel Gain - 7 Slot 1 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5132 5133 5134 5135 5136 5137 5138 5139
SLOT1.3.1.4	Channel Offset				
P5140	Slot 1 - Analogue Output Channel Offset - 1 Slot 1 - Analogue Output Channel Offset - 2 Slot 1 - Analogue Output Channel Offset - 3 Slot 1 - Analogue Output Channel Offset - 4 Slot 1 - Analogue Output Channel Offset - 5 Slot 1 - Analogue Output Channel Offset - 6 Slot 1 - Analogue Output Channel Offset - 7 Slot 1 - Analogue Output Channel Offset - 8	-32768 to 32767	0	rw, s16bit	5140 5141 5142 5143 5144 5145 5146 5147
SLOT1.3.2	Analogue Output Value 16 Bits				
P5100	Slot 1 - Write Analogue Output 16-Bit - 1 Slot 1 - Write Analogue Output 16-Bit - 2 Slot 1 - Write Analogue Output 16-Bit - 3 Slot 1 - Write Analogue Output 16-Bit - 4 Slot 1 - Write Analogue Output 16-Bit - 5 Slot 1 - Write Analogue Output 16-Bit - 6 Slot 1 - Write Analogue Output 16-Bit - 7 Slot 1 - Write Analogue Output 16-Bit - 8	-32768 to 32767	0	rw, s16bit	5100 5101 5102 5103 5104 5105 5106 5107
SLOT1.4 Slot 1\Analog Input (SG)					
SLOT1.4.1	Configuration				
SLOT1.4.1.1	Channel Enable				
P7118	Slot 1 - Analogue SG Channel Enable - 1 Slot 1 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	1	rw, enum	7118 7119

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT1.4.1.2	Channel Unit				
P7120	Slot 1 - Analogue SG Channel Unit - 1 Slot 1 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t	0	rw, enum	7120 7121
SLOT1.4.1.3	Channel Filter				
P7122	Slot 1 - Analogue SG Channel Filter - 1 Slot 1 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	7122 7123
SLOT1.4.1.4	Channel Gain				
P7124	Slot 1 - Analogue SG Channel Gain - 1 Slot 1 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7124 7125
SLOT1.4.1.5	Channel Offset				
P7126	Slot 1 - Analogue SG Channel Offset - 1 Slot 1 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7126 7128
SLOT1.4.1.6	Channel Full Scale				
P7130	Slot 1 - Analogue SG Channel Full Scale - 1 Slot 1 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7130 7131
SLOT1.4.1.7	Channel Sensibility				
P7132	Slot 1 - Analogue SG Channel Sensibility - 1 Slot 1 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7132 7133
SLOT1.4.1.8	Channel Sample Rate				
P7134	Slot 1 - Analogue SG Channel Sample Rate - 1 Slot 1 - Analogue SG Channel Sample Rate - 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	7134 7135
SLOT1.4.1.9	Channel Maximum Variation				
P7136	Slot 1 - Analogue SG Channel Maximum Variation - 1 Slot 1 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7136 7138
SLOT1.4.1.10	Channel Discart Value				
P7140	Slot 1 - Analogue SG Channel Discard Value - 1 Slot 1 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7140 7141
SLOT1.4.1.11	Channel TAU				
P7142	Slot 1 - Analogue SG Channel Filter TAU - 1	0 to 65535	0	rw, 16bit	7142

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 1 - Analogue SG Channel Filter TAU - 2				7143
SLOT1.4.1.12	Channel Variation Step				
P7144	Slot 1 - Analogue SG Channel Variation Step - 1 Slot 1 - Analogue SG Channel Variation Step - 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	7144 7145
SLOT1.4.2	Status				
SLOT1.4.2.1	Read Weight 16 Bits				
P7100	Slot 1 - Read Weight 16 Bit - 1 Slot 1 - Read Weight 16 Bit - 2	-32768 to 32767	-	ro, s16bit	7100 7101
SLOT1.4.2.2	Read Weight 32 Bits				
P7102	Slot 1 - Read Weight 32 Bit - 1 Slot 1 - Read Weight 32 Bit - 2	-2147483648 to 2147483647	-	ro, s32bit	7102 7104
SLOT1.4.2.3	SG Analogue Channel Status				
P7106	Slot 1 - Analogue SG Channel Status - 1 Slot 1 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7106 7107
	SLOT2.1 Slot 2\Digital Input/Output				
SLOT2.1.1	Write Outputs (DOs)				
P1202	Slot 2 - Write 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	1202

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT2.1.2	Read Inputs (DIs)				
P1200	Slot 2 - Read 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	1200
SLOT2.1.3	Configuration				
P1204	Slot 2 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1204
P1206	Slot 2 - Error Value	0 to 4294967295	0	rw, 32bit	1206
	SLOT2.2 Slot 2\Analog Input (AI, TH, RTD)				
SLOT2.2.1	Configuration				
SLOT2.2.1.1	Channel Enable				
P3235	Slot 2 - Analogue Input Channel Enable - 1 Slot 2 - Analogue Input Channel Enable - 2 Slot 2 - Analogue Input Channel Enable - 3 Slot 2 - Analogue Input Channel Enable - 4 Slot 2 - Analogue Input Channel Enable - 5 Slot 2 - Analogue Input Channel Enable - 6 Slot 2 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv	1	rw, enum	3235 3236 3237 3238 3239 3240 3241
SLOT2.2.1.2	Channel Type				
P3242	Slot 2 - Analogue Input Channel Type - 1 Slot 2 - Analogue Input Channel Type - 2 Slot 2 - Analogue Input Channel Type - 3 Slot 2 - Analogue Input Channel Type - 4 Slot 2 - Analogue Input Channel Type - 5 Slot 2 - Analogue Input Channel Type - 6		0	rw, enum	3242 3243 3244 3245 3246 3247

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 2 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100 1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv			3248
SLOT2.2.1.3	Channel Unit				
P3249	Slot 2 - Analogue Input Channel Unit 1 - 1 Slot 2 - Analogue Input Channel Unit 1 - 2 Slot 2 - Analogue Input Channel Unit 1 - 3 Slot 2 - Analogue Input Channel Unit 1 - 4 Slot 2 - Analogue Input Channel Unit 1 - 5 Slot 2 - Analogue Input Channel Unit 1 - 6 Slot 2 - Analogue Input Channel Unit 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	3249 3250 3251 3252 3253 3254 3255
SLOT2.2.1.4	Channel Decimal Digit				
P3256	Slot 2 - Analogue Input Channel Decimal Digit - 1 Slot 2 - Analogue Input Channel Decimal Digit - 2 Slot 2 - Analogue Input Channel Decimal Digit - 3 Slot 2 - Analogue Input Channel Decimal Digit - 4 Slot 2 - Analogue Input Channel Decimal Digit - 5 Slot 2 - Analogue Input Channel Decimal Digit - 6 Slot 2 - Analogue Input Channel Decimal Digit - 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	3256 3257 3258 3259 3260 3261 3262
SLOT2.2.1.5	Channel Filter				
P3263	Slot 2 - Analogue Input Channel Filter - 1 Slot 2 - Analogue Input Channel Filter - 2 Slot 2 - Analogue Input Channel Filter - 3 Slot 2 - Analogue Input Channel Filter - 4 Slot 2 - Analogue Input Channel Filter - 5 Slot 2 - Analogue Input Channel Filter - 6 Slot 2 - Analogue Input Channel Filter - 7	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	3263 3264 3265 3266 3267 3268 3269
SLOT2.2.1.6	Channel Gain				
P3270	Slot 2 - Analogue Input Channel Gain - 1 Slot 2 - Analogue Input Channel Gain - 2 Slot 2 - Analogue Input Channel Gain - 3 Slot 2 - Analogue Input Channel Gain - 4 Slot 2 - Analogue Input Channel Gain - 5 Slot 2 - Analogue Input Channel Gain - 6 Slot 2 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3270 3271 3272 3273 3274 3275 3276

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT2.2.1.7	Channel Offset				
P3278	Slot 2 - Analogue Input Channel Offset - 1 Slot 2 - Analogue Input Channel Offset - 2 Slot 2 - Analogue Input Channel Offset - 3 Slot 2 - Analogue Input Channel Offset - 4 Slot 2 - Analogue Input Channel Offset - 5 Slot 2 - Analogue Input Channel Offset - 6 Slot 2 - Analogue Input Channel Offset - 7	-32768 to 32767	0	rw, s16bit	3278 3279 3280 3281 3282 3283 3284
SLOT2.2.2	Status				
SLOT2.2.2.1	Analogue Input 16 Bits				
P3200	Slot 2 - Read Analogue Input 16 bits - 1 Slot 2 - Read Analogue Input 16 bits - 2 Slot 2 - Read Analogue Input 16 bits - 3 Slot 2 - Read Analogue Input 16 bits - 4 Slot 2 - Read Analogue Input 16 bits - 5 Slot 2 - Read Analogue Input 16 bits - 6 Slot 2 - Read Analogue Input 16 bits - 7	-32768 to 32767	-	ro, s16bit	3200 3201 3202 3203 3204 3205 3206
SLOT2.2.2.2	Analogue Channel Status				
P3207	Slot 2 - Analogue Channel Status - 1 Slot 2 - Analogue Channel Status - 2 Slot 2 - Analogue Channel Status - 3 Slot 2 - Analogue Channel Status - 4 Slot 2 - Analogue Channel Status - 5 Slot 2 - Analogue Channel Status - 6 Slot 2 - Analogue Channel Status - 7	0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	3207 3208 3209 3210 3211 3212 3213
	SLOT2.3 Slot 2\Analog Output				
SLOT2.3.1	Configuration				
SLOT2.3.1.1	Error Mode				
P5208	Slot 2 - Analogue Output Error Mode - 1 Slot 2 - Analogue Output Error Mode - 2 Slot 2 - Analogue Output Error Mode - 3 Slot 2 - Analogue Output Error Mode - 4 Slot 2 - Analogue Output Error Mode - 5 Slot 2 - Analogue Output Error Mode - 6 Slot 2 - Analogue Output Error Mode - 7 Slot 2 - Analogue Output Error Mode - 8	0 to 255	0	rw, 8bit	5208 5209 5210 5211 5212 5213 5214 5215
SLOT2.3.1.2	Error Value				
P5216	Slot 2 - Analogue Output Error Value - 1 Slot 2 - Analogue Output Error Value - 2 Slot 2 - Analogue Output Error Value - 3 Slot 2 - Analogue Output Error Value - 4 Slot 2 - Analogue Output Error Value - 5 Slot 2 - Analogue Output Error Value - 6 Slot 2 - Analogue Output Error Value - 7	-32768 to 32767	0	rw, s16bit	5216 5217 5218 5219 5220 5221 5222

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 2 - Analogue Output Error Value - 8				5223
SLOT2.3.1.3	Channel Gain				
P5232	Slot 2 - Analogue Output Channel Gain - 1 Slot 2 - Analogue Output Channel Gain - 2 Slot 2 - Analogue Output Channel Gain - 3 Slot 2 - Analogue Output Channel Gain - 4 Slot 2 - Analogue Output Channel Gain - 5 Slot 2 - Analogue Output Channel Gain - 6 Slot 2 - Analogue Output Channel Gain - 7 Slot 2 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5232 5233 5234 5235 5236 5237 5238 5239
SLOT2.3.1.4	Channel Offset				
P5240	Slot 2 - Analogue Output Channel Offset - 1 Slot 2 - Analogue Output Channel Offset - 2 Slot 2 - Analogue Output Channel Offset - 3 Slot 2 - Analogue Output Channel Offset - 4 Slot 2 - Analogue Output Channel Offset - 5 Slot 2 - Analogue Output Channel Offset - 6 Slot 2 - Analogue Output Channel Offset - 7 Slot 2 - Analogue Output Channel Offset - 8	-32768 to 32767	0	rw, s16bit	5240 5241 5242 5243 5244 5245 5246 5247
SLOT2.3.2	Analogue Output Value 16 Bits				
P5200	Slot 2 - Write Analogue Output 16-Bit - 1 Slot 2 - Write Analogue Output 16-Bit - 2 Slot 2 - Write Analogue Output 16-Bit - 3 Slot 2 - Write Analogue Output 16-Bit - 4 Slot 2 - Write Analogue Output 16-Bit - 5 Slot 2 - Write Analogue Output 16-Bit - 6 Slot 2 - Write Analogue Output 16-Bit - 7 Slot 2 - Write Analogue Output 16-Bit - 8	-32768 to 32767	0	rw, s16bit	5200 5201 5202 5203 5204 5205 5206 5207
	SLOT2.4 Slot 2\Analog Input (SG)				
SLOT2.4.1	Configuration				
SLOT2.4.1.1	Channel Enable				
P7218	Slot 2 - Analogue SG Channel Enable - 1 Slot 2 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	1	rw, enum	7218 7219
SLOT2.4.1.2	Channel Unit				
P7220	Slot 2 - Analogue SG Channel Unit - 1 Slot 2 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t	0	rw, enum	7220 7221
SLOT2.4.1.3	Channel Filter				
P7222	Slot 2 - Analogue SG Channel Filter - 1 Slot 2 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values	4	rw, enum	7222 7223

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		4 = Average 16 Values 5 = Average 32 Values			
SLOT2.4.1.4	Channel Gain				
P7224	Slot 2 - Analogue SG Channel Gain - 1 Slot 2 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7224 7225
SLOT2.4.1.5	Channel Offset				
P7226	Slot 2 - Analogue SG Channel Offset - 1 Slot 2 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7226 7228
SLOT2.4.1.6	Channel Full Scale				
P7230	Slot 2 - Analogue SG Channel Full Scale - 1 Slot 2 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7230 7231
SLOT2.4.1.7	Channel Sensibility				
P7232	Slot 2 - Analogue SG Channel Sensibility - 1 Slot 2 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7232 7233
SLOT2.4.1.8	Channel Sample Rate				
P7234	Slot 2 - Analogue SG Channel Sample Rate - 1 Slot 2 - Analogue SG Channel Sample Rate - 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	7234 7235
SLOT2.4.1.9	Channel Maximum Variation				
P7236	Slot 2 - Analogue SG Channel Maximum Variation - 1 Slot 2 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7236 7238
SLOT2.4.1.10	Channel Discart Value				
P7240	Slot 2 - Analogue SG Channel Discard Value - 1 Slot 2 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7240 7241
SLOT2.4.1.11	Channel TAU				
P7242	Slot 2 - Analogue SG Channel Filter TAU - 1 Slot 2 - Analogue SG Channel Filter TAU - 2	0 to 65535	0	rw, 16bit	7242 7243
SLOT2.4.1.12	Channel Variation Step				
P7244	Slot 2 - Analogue SG Channel Variation Step - 1 Slot 2 - Analogue SG Channel Variation Step - 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	7244 7245
SLOT2.4.2	Status				
SLOT2.4.2.1	Read Weight 16 Bits				
P7200	Slot 2 - Read Weight 16 Bits - 1	-32768 to 32767	-	ro, s16bit	7200

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 2 - Read Weight 16 Bits - 2				7201
SLOT2.4.2.2	Read Weight 32 Bits				
P7202	Slot 2 - Read Weight 32 Bits - 1 Slot 2 - Read Weight 32 Bits - 2	-2147483648 to 2147483647	-	ro, s32bit	7202 7204
SLOT2.4.2.3	SG Analogue Channel Status				
P7206	Slot 2 - Analogue SG Channel Status - 1 Slot 2 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7206 7207
SLOT3.1 Slot 3\Digital Input/Output					
SLOT3.1.1	Write Outputs (DOs)				
P1302	Slot 3 - Write 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	1302
SLOT3.1.2	Read Inputs (DIs)				
P1300	Slot 3 - Read 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	-	ro, 32bit	1300

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		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			
SLOT3.1.3	Configuration				
P1304	Slot 3 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1304
P1306	Slot 3 - Error Value	0 to 4294967295	0	rw, 32bit	1306
		SLOT3.2 Slot 3\Analog Input (AI, TH, RTD)			
SLOT3.2.1	Configuration				
SLOT3.2.1.1	Channel Enable				
P3335	Slot 3 - Analogue Input Channel Enable - 1 Slot 3 - Analogue Input Channel Enable - 2 Slot 3 - Analogue Input Channel Enable - 3 Slot 3 - Analogue Input Channel Enable - 4 Slot 3 - Analogue Input Channel Enable - 5 Slot 3 - Analogue Input Channel Enable - 6 Slot 3 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv	1	rw, enum	3335 3336 3337 3338 3339 3340 3341
SLOT3.2.1.2	Channel Type				
P3342	Slot 3 - Analogue Input Channel Type - 1 Slot 3 - Analogue Input Channel Type - 2 Slot 3 - Analogue Input Channel Type - 3 Slot 3 - Analogue Input Channel Type - 4 Slot 3 - Analogue Input Channel Type - 5 Slot 3 - Analogue Input Channel Type - 6 Slot 3 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100 1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv	0	rw, enum	3342 3343 3344 3345 3346 3347 3348
SLOT3.2.1.3	Channel Unit				
P3349	Slot 3 - Analogue Input Channel Unit 1 - 1 Slot 3 - Analogue Input Channel Unit 1 - 2 Slot 3 - Analogue Input Channel Unit 1 - 3 Slot 3 - Analogue Input Channel Unit 1 - 4 Slot 3 - Analogue Input Channel Unit 1 - 5 Slot 3 - Analogue Input Channel Unit 1 - 6 Slot 3 - Analogue Input Channel Unit 1 - 7	0 = ai: Not Used / th: °C / rtd: °C	0	rw, enum	3349 3350 3351 3352 3353 3354 3355

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		1 = ai: Not Used / th: °F / rtd: °F 2 = ai: Not Used / th: K / rtd: K			
SLOT3.2.1.4	Channel Decimal Digit				
P3356	Slot 3 - Analogue Input Channel Decimal Digit - 1 Slot 3 - Analogue Input Channel Decimal Digit - 2 Slot 3 - Analogue Input Channel Decimal Digit - 3 Slot 3 - Analogue Input Channel Decimal Digit - 4 Slot 3 - Analogue Input Channel Decimal Digit - 5 Slot 3 - Analogue Input Channel Decimal Digit - 6 Slot 3 - Analogue Input Channel Decimal Digit - 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	3356 3357 3358 3359 3360 3361 3362
SLOT3.2.1.5	Channel Filter				
P3363	Slot 3 - Analogue Input Channel Filter - 1 Slot 3 - Analogue Input Channel Filter - 2 Slot 3 - Analogue Input Channel Filter - 3 Slot 3 - Analogue Input Channel Filter - 4 Slot 3 - Analogue Input Channel Filter - 5 Slot 3 - Analogue Input Channel Filter - 6 Slot 3 - Analogue Input Channel Filter - 7	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	3363 3364 3365 3366 3367 3368 3369
SLOT3.2.1.6	Channel Gain				
P3370	Slot 3 - Analogue Input Channel Gain - 1 Slot 3 - Analogue Input Channel Gain - 2 Slot 3 - Analogue Input Channel Gain - 3 Slot 3 - Analogue Input Channel Gain - 4 Slot 3 - Analogue Input Channel Gain - 5 Slot 3 - Analogue Input Channel Gain - 6 Slot 3 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3370 3371 3372 3373 3374 3375 3376
SLOT3.2.1.7	Channel Offset				
P3378	Slot 3 - Analogue Input Channel Offset - 1 Slot 3 - Analogue Input Channel Offset - 2 Slot 3 - Analogue Input Channel Offset - 3 Slot 3 - Analogue Input Channel Offset - 4 Slot 3 - Analogue Input Channel Offset - 5 Slot 3 - Analogue Input Channel Offset - 6 Slot 3 - Analogue Input Channel Offset - 7	-32768 to 32767	0	rw, s16bit	3378 3379 3380 3381 3382 3383 3384
SLOT3.2.2	Status				
SLOT3.2.2.1	Analogue Input 16 Bits				
P3300	Slot 3 - Read Analogue Input 16 Bits - 1 Slot 3 - Read Analogue Input 16 Bits - 2 Slot 3 - Read Analogue Input 16 Bits - 3	-32768 to 32767	-	ro, s16bit	3300 3301 3302

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 3 - Read Analogue Input 16 Bits - 4 Slot 3 - Read Analogue Input 16 Bits - 5 Slot 3 - Read Analogue Input 16 Bits - 6 Slot 3 - Read Analogue Input 16 Bits - 7				3303 3304 3305 3306
SLOT3.2.2.2	Analogue Channel Status				
P3307	Slot 3 - Analogue Channel Status - 1 Slot 3 - Analogue Channel Status - 2 Slot 3 - Analogue Channel Status - 3 Slot 3 - Analogue Channel Status - 4 Slot 3 - Analogue Channel Status - 5 Slot 3 - Analogue Channel Status - 6 Slot 3 - Analogue Channel Status - 7	0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	3307 3308 3309 3310 3311 3312 3313
SLOT3.3 Slot 3\Analog Output					
SLOT3.3.1	Configuration				
SLOT3.3.1.1	Error Mode				
P5308	Slot 3 - Analogue Output Error Mode - 1 Slot 3 - Analogue Output Error Mode - 2 Slot 3 - Analogue Output Error Mode - 3 Slot 3 - Analogue Output Error Mode - 4 Slot 3 - Analogue Output Error Mode - 5 Slot 3 - Analogue Output Error Mode - 6 Slot 3 - Analogue Output Error Mode - 7 Slot 3 - Analogue Output Error Mode - 8	0 to 255	0	rw, 8bit	5308 5309 5310 5311 5312 5313 5314 5315
SLOT3.3.1.2	Error Value				
P5316	Slot 3 - Analogue Output Error Value - 1 Slot 3 - Analogue Output Error Value - 2 Slot 3 - Analogue Output Error Value - 3 Slot 3 - Analogue Output Error Value - 4 Slot 3 - Analogue Output Error Value - 5 Slot 3 - Analogue Output Error Value - 6 Slot 3 - Analogue Output Error Value - 7 Slot 3 - Analogue Output Error Value - 8	-32768 to 32767	0	rw, s16bit	5316 5317 5318 5319 5320 5321 5322 5323
SLOT3.3.1.3	Channel Gain				
P5332	Slot 3 - Analogue Output Channel Gain - 1 Slot 3 - Analogue Output Channel Gain - 2 Slot 3 - Analogue Output Channel Gain - 3 Slot 3 - Analogue Output Channel Gain - 4 Slot 3 - Analogue Output Channel Gain - 5 Slot 3 - Analogue Output Channel Gain - 6 Slot 3 - Analogue Output Channel Gain - 7 Slot 3 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5332 5333 5334 5335 5336 5337 5338 5339
SLOT3.3.1.4	Channel Offset				
P5340	Slot 3 - Analogue Output Channel Offset - 1 Slot 3 - Analogue Output Channel Offset - 2	-32768 to 32767	0	rw, s16bit	5340 5341

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 3 - Analogue Output Channel Offset - 3 Slot 3 - Analogue Output Channel Offset - 4 Slot 3 - Analogue Output Channel Offset - 5 Slot 3 - Analogue Output Channel Offset - 6 Slot 3 - Analogue Output Channel Offset - 7 Slot 3 - Analogue Output Channel Offset - 8				5342 5343 5344 5345 5346 5347
SLOT3.3.2	Analogue Output Value 16 Bits				
P5300	Slot 3 - Write Analogue Output 16-Bit - 1 Slot 3 - Write Analogue Output 16-Bit - 2 Slot 3 - Write Analogue Output 16-Bit - 3 Slot 3 - Write Analogue Output 16-Bit - 4 Slot 3 - Write Analogue Output 16-Bit - 5 Slot 3 - Write Analogue Output 16-Bit - 6 Slot 3 - Write Analogue Output 16-Bit - 7 Slot 3 - Write Analogue Output 16-Bit - 8	-32768 to 32767	0	rw, s16bit	5300 5301 5302 5303 5304 5305 5306 5307
SLOT3.4 Slot 3\Analog Input (SG)					
SLOT3.4.1	Configuration				
SLOT3.4.1.1	Channel Enable				
P7318	Slot 3 - Analogue SG Channel Enable - 1 Slot 3 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	255	rw, enum	7318 7319
SLOT3.4.1.2	Channel Unit				
P7320	Slot 3 - Analogue SG Channel Unit - 1 Slot 3 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t	0	rw, enum	7320 7321
SLOT3.4.1.3	Channel Filter				
P7322	Slot 3 - Analogue SG Channel Filter - 1 Slot 3 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	7322 7323
SLOT3.4.1.4	Channel Gain				
P7324	Slot 3 - Analogue SG Channel Gain - 1 Slot 3 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7324 7325
SLOT3.4.1.5	Channel Offset				
P7326	Slot 3 - Analogue SG Channel Offset - 1 Slot 3 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7326 7328
SLOT3.4.1.6	Channel Full Scale				
P7330	Slot 3 - Analogue SG Channel Full Scale - 1 Slot 3 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7330 7331
SLOT3.4.1.7	Channel Sensibility				

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
P7332	Slot 3 - Analogue SG Channel Sensibility - 1 Slot 3 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7332 7333
SLOT3.4.1.8	Channel Sample Rate				
P7334	Slot 3 - Analogue SG Channel Sample Rate - 1 Slot 3 - Analogue SG Channel Sample Rate - 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	7334 7335
SLOT3.4.1.9	Channel Maximum Variation				
P7336	Slot 3 - Analogue SG Channel Maximum Variation - 1 Slot 3 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7336 7338
SLOT3.4.1.10	Channel Discart Value				
P7340	Slot 3 - Analogue SG Channel Discard Value - 1 Slot 3 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7340 7341
SLOT3.4.1.11	Channel TAU				
P7342	Slot 3 - Analogue SG Channel Filter TAU - 1 Slot 3 - Analogue SG Channel Filter TAU - 2	0 to 65535	0	rw, 16bit	7342 7343
SLOT3.4.1.12	Channel Variation Step				
P7344	Slot 3 - Analogue SG Channel Variation Step - 1 Slot 3 - Analogue SG Channel Variation Step - 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	7344 7345
SLOT3.4.2	Status				
SLOT3.4.2.1	Read Weight 16 Bits				
P7300	Slot 3 - Read Weight 16 Bits - 1 Slot 3 - Read Weight 16 Bits - 2	-32768 to 32767	-	ro, s16bit	7300 7301
SLOT3.4.2.2	Read Weight 32 Bits				
P7302	Slot 3 - Read Weight 32 Bits - 1 Slot 3 - Read Weight 32 Bits - 2	-2147483648 to 2147483647	-	ro, s32bit	7302 7304
SLOT3.4.2.3	SG Analogue Channel Status				
P7306	Slot 3 - Analogue SG Channel Status - 1 Slot 3 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7306 7307
SLOT4.1 Slot 4\Digital Input/Output					
SLOT4.1.1	Write Outputs (DOs)				
P1402	Slot 4 - Write Digital Outputs (DOs)		0	rw, 32bit	1402

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		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			
SLOT4.1.2	Read Inputs (DIs)				
P1400	Slot 4 - Read 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	1400

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT4.1.3	Configuration				
P1404	Slot 4 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1404
P1406	Slot 4 - Error Value	0 to 4294967295	0	rw, 32bit	1406
SLOT4.2 Slot 4\Analog Input (AI, TH, RTD)					
SLOT4.2.1	Configuration				
SLOT4.2.1.1	Channel Enable				
P3435	Slot 4 - Analogue Input Channel Enable - 1 Slot 4 - Analogue Input Channel Enable - 2 Slot 4 - Analogue Input Channel Enable - 3 Slot 4 - Analogue Input Channel Enable - 4 Slot 4 - Analogue Input Channel Enable - 5 Slot 4 - Analogue Input Channel Enable - 6 Slot 4 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv	1	rw, enum	3435 3436 3437 3438 3439 3440 3441
SLOT4.2.1.2	Channel Type				
P3442	Slot 4 - Analogue Input Channel Type - 1 Slot 4 - Analogue Input Channel Type - 2 Slot 4 - Analogue Input Channel Type - 3 Slot 4 - Analogue Input Channel Type - 4 Slot 4 - Analogue Input Channel Type - 5 Slot 4 - Analogue Input Channel Type - 6 Slot 4 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100 1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv	0	rw, enum	3442 3443 3444 3445 3446 3447 3448
SLOT4.2.1.3	Channel Unit				
P3449	Slot 4 - Analogue Input Channel Unit 1 - 1 Slot 4 - Analogue Input Channel Unit 1 - 2 Slot 4 - Analogue Input Channel Unit 1 - 3 Slot 4 - Analogue Input Channel Unit 1 - 4 Slot 4 - Analogue Input Channel Unit 1 - 5 Slot 4 - Analogue Input Channel Unit 1 - 6 Slot 4 - Analogue Input Channel Unit 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	3449 3450 3451 3452 3453 3454 3455
SLOT4.2.1.4	Channel Decimal Digit				
P3456	Slot 4 - Analogue Input Channel Decimal Digit - 1 Slot 4 - Analogue Input Channel Decimal Digit - 2 Slot 4 - Analogue Input Channel Decimal Digit - 3 Slot 4 - Analogue Input Channel Decimal Digit - 4 Slot 4 - Analogue Input Channel Decimal Digit - 5 Slot 4 - Analogue Input Channel Decimal Digit - 6 Slot 4 - Analogue Input Channel Decimal Digit - 7	0 = ai: 0 / th: 0 / rtd: 0 1 = ai: 1 / th: 1 / rtd: 1	1	rw, enum	3456 3457 3458 3459 3460 3461 3462

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		2 = ai: 2 / th: 1 / rtd: 1 3 = ai: 3 / th: 1 / rtd: 1			
SLOT4.2.1.5	Channel Filter				
P3463	Slot 4 - Analogue Input Channel Filter - 1 Slot 4 - Analogue Input Channel Filter - 2 Slot 4 - Analogue Input Channel Filter - 3 Slot 4 - Analogue Input Channel Filter - 4 Slot 4 - Analogue Input Channel Filter - 5 Slot 4 - Analogue Input Channel Filter - 6 Slot 4 - Analogue Input Channel Filter - 7	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	3463 3464 3465 3466 3467 3468 3469
SLOT4.2.1.6	Channel Gain				
P3470	Slot 4 - Analogue Input Channel Gain - 1 Slot 4 - Analogue Input Channel Gain - 2 Slot 4 - Analogue Input Channel Gain - 3 Slot 4 - Analogue Input Channel Gain - 4 Slot 4 - Analogue Input Channel Gain - 5 Slot 4 - Analogue Input Channel Gain - 6 Slot 4 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3470 3471 3472 3473 3474 3475 3476
SLOT4.2.1.7	Channel Offset				
P3478	Slot 4 - Analogue Input Channel Offset - 1 Slot 4 - Analogue Input Channel Offset - 2 Slot 4 - Analogue Input Channel Offset - 3 Slot 4 - Analogue Input Channel Offset - 4 Slot 4 - Analogue Input Channel Offset - 5 Slot 4 - Analogue Input Channel Offset - 6 Slot 4 - Analogue Input Channel Offset - 7	-32768 to 32767	0	rw, s16bit	3478 3479 3480 3481 3482 3483 3484
SLOT4.2.2	Status				
SLOT4.2.2.1	Analogue Input 16 Bits				
P3400	Slot 4 - Read Analogue Input 16 Bits - 1 Slot 4 - Read Analogue Input 16 Bits - 2 Slot 4 - Read Analogue Input 16 Bits - 3 Slot 4 - Read Analogue Input 16 Bits - 4 Slot 4 - Read Analogue Input 16 Bits - 5 Slot 4 - Read Analogue Input 16 Bits - 6 Slot 4 - Read Analogue Input 16 Bits - 7	-32768 to 32767	-	ro, s16bit	3400 3401 3402 3403 3404 3405 3406
SLOT4.2.2.2	Analogue Channel Status				
P3407	Slot 4 - Analogue Channel Status - 1 Slot 4 - Analogue Channel Status - 2 Slot 4 - Analogue Channel Status - 3 Slot 4 - Analogue Channel Status - 4 Slot 4 - Analogue Channel Status - 5 Slot 4 - Analogue Channel Status - 6 Slot 4 - Analogue Channel Status - 7		-	ro, enum	3407 3408 3409 3410 3411 3412 3413

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled 2 = ai: Open / th: Open / rtd: Open			
SLOT4.3 Slot 4\Analog Output					
SLOT4.3.1	Configuration				
SLOT4.3.1.1	Error Mode				
P5408	Slot 4 - Analogue Output Error Mode - 1 Slot 4 - Analogue Output Error Mode - 2 Slot 4 - Analogue Output Error Mode - 3 Slot 4 - Analogue Output Error Mode - 4 Slot 4 - Analogue Output Error Mode - 5 Slot 4 - Analogue Output Error Mode - 6 Slot 4 - Analogue Output Error Mode - 7 Slot 4 - Analogue Output Error Mode - 8	0 to 255	0	rw, 8bit	5408 5409 5410 5411 5412 5413 5414 5415
SLOT4.3.1.2	Error Value				
P5416	Slot 4 - Analogue Output Error Value - 1 Slot 4 - Analogue Output Error Value - 2 Slot 4 - Analogue Output Error Value - 3 Slot 4 - Analogue Output Error Value - 4 Slot 4 - Analogue Output Error Value - 5 Slot 4 - Analogue Output Error Value - 6 Slot 4 - Analogue Output Error Value - 7 Slot 4 - Analogue Output Error Value - 8	-32768 to 32767	0	rw, s16bit	5416 5417 5418 5419 5420 5421 5422 5423
SLOT4.3.1.3	Channel Gain				
P5432	Slot 4 - Analogue Output Channel Gain - 1 Slot 4 - Analogue Output Channel Gain - 2 Slot 4 - Analogue Output Channel Gain - 3 Slot 4 - Analogue Output Channel Gain - 4 Slot 4 - Analogue Output Channel Gain - 5 Slot 4 - Analogue Output Channel Gain - 6 Slot 4 - Analogue Output Channel Gain - 7 Slot 4 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5432 5433 5434 5435 5436 5437 5438 5439
SLOT4.3.1.4	Channel Offset				
P5440	Slot 4 - Analogue Output Channel Offset - 1 Slot 4 - Analogue Output Channel Offset - 2 Slot 4 - Analogue Output Channel Offset - 3 Slot 4 - Analogue Output Channel Offset - 4 Slot 4 - Analogue Output Channel Offset - 5 Slot 4 - Analogue Output Channel Offset - 6 Slot 4 - Analogue Output Channel Offset - 7 Slot 4 - Analogue Output Channel Offset - 8	-32768 to 32767	0	rw, s16bit	5440 5441 5442 5443 5444 5445 5446 5447
SLOT4.3.2	Analogue Output Value 16 Bits				
P5400	Slot 4 - Write Analogue Output 16-Bit - 1 Slot 4 - Write Analogue Output 16-Bit - 2 Slot 4 - Write Analogue Output 16-Bit - 3 Slot 4 - Write Analogue Output 16-Bit - 4 Slot 4 - Write Analogue Output 16-Bit - 5	-32768 to 32767	0	rw, s16bit	5400 5401 5402 5403 5404

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 4 - Write Analogue Output 16-Bit - 6 Slot 4 - Write Analogue Output 16-Bit - 7 Slot 4 - Write Analogue Output 16-Bit - 8				5405 5406 5407
SLOT4.4 Slot 4\Analog Input (SG)					
SLOT4.4.1	Configuration				
SLOT4.4.1.1	Channel Enable				
P7418	Slot 4 - Analogue SG Channel Enable - 1 Slot 4 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	1	rw, enum	7418 7419
SLOT4.4.1.2	Channel Unit				
P7420	Slot 4 - Analogue SG Channel Unit - 1 Slot 4 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t	0	rw, enum	7420 7421
SLOT4.4.1.3	Channel Filter				
P7422	Slot 4 - Analogue SG Channel Filter - 1 Slot 4 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	7422 7423
SLOT4.4.1.4	Channel Gain				
P7424	Slot 4 - Analogue SG Channel Gain - 1 Slot 4 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7424 7425
SLOT4.4.1.5	Channel Offset				
P7426	Slot 4 - Analogue SG Channel Offset - 1 Slot 4 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7426 7428
SLOT4.4.1.6	Channel Full Scale				
P7430	Slot 4 - Analogue SG Channel Full Scale - 1 Slot 4 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7430 7431
SLOT4.4.1.7	Channel Sensibility				
P7432	Slot 4 - Analogue SG Channel Sensibility - 1 Slot 4 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7432 7433
SLOT4.4.1.8	Channel Sample Rate				
P7434	Slot 4 - Analogue SG Channel Sample Rate - 1 Slot 4 - Analogue SG Channel Sample Rate - 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	7434 7435

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT4.4.1.9	Channel Maximum Variation				
P7436	Slot 4 - Analogue SG Channel Maximum Variation - 1 Slot 4 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7436 7438
SLOT4.4.1.10	Channel Discart Value				
P7440	Slot 4 - Analogue SG Channel Discard Value - 1 Slot 4 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7440 7441
SLOT4.4.1.11	Channel TAU				
P7442	Slot 4 - Analogue SG Channel Filter TAU - 1 Slot 4 - Analogue SG Channel Filter TAU - 2	0 to 65535	0	rw, 16bit	7442 7443
SLOT4.4.1.12	Channel Variation Step				
P7444	Slot 4 - Analogue SG Channel Variation Step - 1 Slot 4 - Analogue SG Channel Variation Step - 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	7444 7445
SLOT4.4.2	Status				
SLOT4.4.2.1	Read Weight 16 Bits				
P7400	Slot 4 - Read Weight 16 Bits - 1 Slot 4 - Read Weight 16 Bits - 2	-32768 to 32767	-	ro, s16bit	7400 7401
SLOT4.4.2.2	Read Weight 32 Bits				
P7402	Slot 4 - Read Weight 32 Bits - 1 Slot 4 - Read Weight 32 Bits - 2	-2147483648 to 2147483647	-	ro, s32bit	7402 7404
SLOT4.4.2.3	SG Analogue Channel Status				
P7406	Slot 4 - Analogue SG Channel Status - 1 Slot 4 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7406 7407
SLOT5.1 Slot 5\Digital Input/Output					
SLOT5.1.1	Write Outputs (DOs)				
P1502	Slot 5 - Write 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	0	rw, 32bit	1502

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		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			
SLOT5.1.2	Read Inputs (DIs)				
P1500	Slot 5 - Read 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	1500
SLOT5.1.3	Configuration				
P1504	Slot 5 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1504
P1506	Slot 5 - Error Value	0 to 4294967295	0	rw, 32bit	1506
SLOT5.2 Slot 5\Analog Input (AI, TH, RTD)					
SLOT5.2.1	Configuration				
SLOT5.2.1.1	Channel Enable				
P3535	Slot 5 - Analogue Input Channel Enable - 1 Slot 5 - Analogue Input Channel Enable - 2 Slot 5 - Analogue Input Channel Enable - 3 Slot 5 - Analogue Input Channel Enable - 4 Slot 5 - Analogue Input Channel Enable - 5 Slot 5 - Analogue Input Channel Enable - 6		1	rw, enum	3535 3536 3537 3538 3539 3540

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 5 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv			3541
SLOT5.2.1.2	Channel Type				
P3542	Slot 5 - Analogue Input Channel Type - 1 Slot 5 - Analogue Input Channel Type - 2 Slot 5 - Analogue Input Channel Type - 3 Slot 5 - Analogue Input Channel Type - 4 Slot 5 - Analogue Input Channel Type - 5 Slot 5 - Analogue Input Channel Type - 6 Slot 5 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100 1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv	0	rw, enum	3542 3543 3544 3545 3546 3547 3548
SLOT5.2.1.3	Channel Unit				
P3549	Slot 5 - Analogue Input Channel Unit 1 - 1 Slot 5 - Analogue Input Channel Unit 1 - 2 Slot 5 - Analogue Input Channel Unit 1 - 3 Slot 5 - Analogue Input Channel Unit 1 - 4 Slot 5 - Analogue Input Channel Unit 1 - 5 Slot 5 - Analogue Input Channel Unit 1 - 6 Slot 5 - Analogue Input Channel Unit 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	3549 3550 3551 3552 3553 3554 3555
SLOT5.2.1.4	Channel Decimal Digit				
P3556	Slot 5 - Analogue Input Channel Decimal Digit - 1 Slot 5 - Analogue Input Channel Decimal Digit - 2 Slot 5 - Analogue Input Channel Decimal Digit - 3 Slot 5 - Analogue Input Channel Decimal Digit - 4 Slot 5 - Analogue Input Channel Decimal Digit - 5 Slot 5 - Analogue Input Channel Decimal Digit - 6 Slot 5 - Analogue Input Channel Decimal Digit - 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	3556 3557 3558 3559 3560 3561 3562
SLOT5.2.1.5	Channel Filter				
P3563	Slot 5 - Analogue Input Channel Filter - 1 Slot 5 - Analogue Input Channel Filter - 2 Slot 5 - Analogue Input Channel Filter - 3 Slot 5 - Analogue Input Channel Filter - 4 Slot 5 - Analogue Input Channel Filter - 5 Slot 5 - Analogue Input Channel Filter - 6 Slot 5 - Analogue Input Channel Filter - 7	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values	4	rw, enum	3563 3564 3565 3566 3567 3568 3569

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values			
SLOT5.2.1.6	Channel Gain				
P3570	Slot 5 - Analogue Input Channel Gain - 1 Slot 5 - Analogue Input Channel Gain - 2 Slot 5 - Analogue Input Channel Gain - 3 Slot 5 - Analogue Input Channel Gain - 4 Slot 5 - Analogue Input Channel Gain - 5 Slot 5 - Analogue Input Channel Gain - 6 Slot 5 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3570 3571 3572 3573 3574 3575 3576
SLOT5.2.1.7	Channel Offset				
P3578	Slot 5 - Analogue Input Channel Offset - 1 Slot 5 - Analogue Input Channel Offset - 2 Slot 5 - Analogue Input Channel Offset - 3 Slot 5 - Analogue Input Channel Offset - 4 Slot 5 - Analogue Input Channel Offset - 5 Slot 5 - Analogue Input Channel Offset - 6 Slot 5 - Analogue Input Channel Offset - 7	-32768 to 32767	0	rw, s16bit	3578 3579 3580 3581 3582 3583 3584
SLOT5.2.2	Status				
SLOT5.2.2.1	Analogue Input 16 Bits				
P3500	Slot 5 - Read Analogue Input 16 Bits - 1 Slot 5 - Read Analogue Input 16 Bits - 2 Slot 5 - Read Analogue Input 16 Bits - 3 Slot 5 - Read Analogue Input 16 Bits - 4 Slot 5 - Read Analogue Input 16 Bits - 5 Slot 5 - Read Analogue Input 16 Bits - 6 Slot 5 - Read Analogue Input 16 Bits - 7	-32768 to 32767	-	ro, s16bit	3500 3501 3502 3503 3504 3505 3506
SLOT5.2.2.2	Analogue Channel Status				
P3507	Slot 5 - Analogue Channel Status - 1 Slot 5 - Analogue Channel Status - 2 Slot 5 - Analogue Channel Status - 3 Slot 5 - Analogue Channel Status - 4 Slot 5 - Analogue Channel Status - 5 Slot 5 - Analogue Channel Status - 6 Slot 5 - Analogue Channel Status - 7	0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	3507 3508 3509 3510 3511 3512 3513
SLOT5.3 Slot 5\Analog Output					
SLOT5.3.1	Configuration				
SLOT5.3.1.1	Error Mode				
P5508	Slot 5 - Analogue Output Error Mode - 1 Slot 5 - Analogue Output Error Mode - 2 Slot 5 - Analogue Output Error Mode - 3 Slot 5 - Analogue Output Error Mode - 4 Slot 5 - Analogue Output Error Mode - 5	0 to 255	0	rw, 8bit	5508 5509 5510 5511 5512

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 5 - Analogue Output Error Mode - 6 Slot 5 - Analogue Output Error Mode - 7 Slot 5 - Analogue Output Error Mode - 8				5513 5514 5515
SLOT5.3.1.2	Error Value				
P5516	Slot 5 - Analogue Output Error Value - 1 Slot 5 - Analogue Output Error Value - 2 Slot 5 - Analogue Output Error Value - 3 Slot 5 - Analogue Output Error Value - 4 Slot 5 - Analogue Output Error Value - 5 Slot 5 - Analogue Output Error Value - 6 Slot 5 - Analogue Output Error Value - 7 Slot 5 - Analogue Output Error Value - 8	-32768 to 32767	0	rw, s16bit	5516 5517 5518 5519 5520 5521 5522 5523
SLOT5.3.1.3	Channel Gain				
P5532	Slot 5 - Analogue Output Channel Gain - 1 Slot 5 - Analogue Output Channel Gain - 2 Slot 5 - Analogue Output Channel Gain - 3 Slot 5 - Analogue Output Channel Gain - 4 Slot 5 - Analogue Output Channel Gain - 5 Slot 5 - Analogue Output Channel Gain - 6 Slot 5 - Analogue Output Channel Gain - 7 Slot 5 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5532 5533 5534 5535 5536 5537 5538 5539
SLOT5.3.1.4	Channel Offset				
P5540	Slot 5 - Analogue Output Channel Offset - 1 Slot 5 - Analogue Output Channel Offset - 2 Slot 5 - Analogue Output Channel Offset - 3 Slot 5 - Analogue Output Channel Offset - 4 Slot 5 - Analogue Output Channel Offset - 5 Slot 5 - Analogue Output Channel Offset - 6 Slot 5 - Analogue Output Channel Offset - 7 Slot 5 - Analogue Output Channel Offset - 8	-32768 to 32767	0	rw, s16bit	5540 5541 5542 5543 5544 5545 5546 5547
SLOT5.3.2	Analogue Output Value 16 Bits				
P5500	Slot 5 - Write Analogue Output 16-Bit - 1 Slot 5 - Write Analogue Output 16-Bit - 2 Slot 5 - Write Analogue Output 16-Bit - 3 Slot 5 - Write Analogue Output 16-Bit - 4 Slot 5 - Write Analogue Output 16-Bit - 5 Slot 5 - Write Analogue Output 16-Bit - 6 Slot 5 - Write Analogue Output 16-Bit - 7 Slot 5 - Write Analogue Output 16-Bit - 8	-32768 to 32767	0	rw, s16bit	5500 5501 5502 5503 5504 5505 5506 5507
	SLOT5.4 Slot 5\Analog Input (SG)				
SLOT5.4.1	Configuration				
SLOT5.4.1.1	Channel Enable				
P7518	Slot 5 - Analogue SG Channel Enable - 1 Slot 5 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	1	rw, enum	7518 7519
SLOT5.4.1.2	Channel Unit				
P7520	Slot 5 - Analogue SG Channel Unit - 1		0	rw, enum	7520

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 5 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t			7521
SLOT5.4.1.3	Channel Filter				
P7522	Slot 5 - Analogue SG Channel Filter - 1 Slot 5 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	7522 7523
SLOT5.4.1.4	Channel Gain				
P7524	Slot 5 - Analogue SG Channel Gain - 1 Slot 5 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7524 7525
SLOT5.4.1.5	Channel Offset				
P7526	Slot 5 - Analogue SG Channel Offset - 1 Slot 5 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7526 7528
SLOT5.4.1.6	Channel Full Scale				
P7530	Slot 5 - Analogue SG Channel Full Scale - 1 Slot 5 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7530 7531
SLOT5.4.1.7	Channel Sensibility				
P7532	Slot 5 - Analogue SG Channel Sensibility - 1 Slot 5 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7532 7533
SLOT5.4.1.8	Channel Sample Rate				
P7534	Slot 5 - Analogue SG Channel Sample Rate - 1 Slot 5 - Analogue SG Channel Sample Rate - 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	7534 7535
SLOT5.4.1.9	Channel Maximum Variation				
P7536	Slot 5 - Analogue SG Channel Maximum Variation - 1 Slot 5 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7536 7538
SLOT5.4.1.10	Channel Discart Value				
P7540	Slot 5 - Analogue SG Channel Discard Value - 1 Slot 5 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7540 7541
SLOT5.4.1.11	Channel TAU				
P7542	Slot 5 - Analogue SG Channel Filter TAU - 1 Slot 5 - Analogue SG Channel Filter TAU - 2	0 to 65535	0	rw, 16bit	7542 7543
SLOT5.4.1.12	Channel Variation Step				

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
P7544	Slot 5 - Analogue SG Channel Variation Step - 1 Slot 5 - Analogue SG Channel Variation Step - 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	7544 7545
SLOT5.4.2	Status				
SLOT5.4.2.1	Read Weight 16 Bits				
P7500	Slot 5 - Read Weight 16 Bits - 1 Slot 5 - Read Weight 16 Bits - 2	-32768 to 32767	-	ro, s16bit	7500 7501
SLOT5.4.2.2	Read Weight 32 Bits				
P7502	Slot 5 - Read Weight 32 Bits - 1 Slot 5 - Read Weight 32 Bits - 2	-2147483648 to 2147483647	-	ro, s32bit	7502 7504
SLOT5.4.2.3	SG Analogue Channel Status				
P7506	Slot 5 - Analogue SG Channel Status - 1 Slot 5 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7506 7507
SLOT6.1 Slot 6\Digital Input/Output					
SLOT6.1.1	Write Outputs (DOs)				
P1602	Slot 6 - Write 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	1602
SLOT6.1.2	Read Inputs (DIs)				
P1600	Slot 6 - Read Digital Inputs (DIs)		-	ro, 32bit	1600

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		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			
SLOT6.1.3	Configuration				
P1604	Slot 6 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1604
P1606	Slot 6 - Error Value	0 to 4294967295	0	rw, 32bit	1606
		SLOT6.2 Slot 6\Analog Input (AI, TH, RTD)			
SLOT6.2.1	Configuration				
SLOT6.2.1.1	Channel Enable				
P3635	Slot 6 - Analogue Input Channel Enable - 1 Slot 6 - Analogue Input Channel Enable - 2 Slot 6 - Analogue Input Channel Enable - 3 Slot 6 - Analogue Input Channel Enable - 4 Slot 6 - Analogue Input Channel Enable - 5 Slot 6 - Analogue Input Channel Enable - 6 Slot 6 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv	1	rw, enum	3635 3636 3637 3638 3639 3640 3641
SLOT6.2.1.2	Channel Type				
P3642	Slot 6 - Analogue Input Channel Type - 1 Slot 6 - Analogue Input Channel Type - 2 Slot 6 - Analogue Input Channel Type - 3 Slot 6 - Analogue Input Channel Type - 4 Slot 6 - Analogue Input Channel Type - 5 Slot 6 - Analogue Input Channel Type - 6 Slot 6 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100	0	rw, enum	3642 3643 3644 3645 3646 3647 3648

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv			
SLOT6.2.1.3	Channel Unit				
P3649	Slot 6 - Analogue Input Channel Unit 1 - 1 Slot 6 - Analogue Input Channel Unit 1 - 2 Slot 6 - Analogue Input Channel Unit 1 - 3 Slot 6 - Analogue Input Channel Unit 1 - 4 Slot 6 - Analogue Input Channel Unit 1 - 5 Slot 6 - Analogue Input Channel Unit 1 - 6 Slot 6 - Analogue Input Channel Unit 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	3649 3650 3651 3652 3653 3654 3655
SLOT6.2.1.4	Channel Decimal Digit				
P3656	Slot 6 - Analogue Input Channel Decimal Digit - 1 Slot 6 - Analogue Input Channel Decimal Digit - 2 Slot 6 - Analogue Input Channel Decimal Digit - 3 Slot 6 - Analogue Input Channel Decimal Digit - 4 Slot 6 - Analogue Input Channel Decimal Digit - 5 Slot 6 - Analogue Input Channel Decimal Digit - 6 Slot 6 - Analogue Input Channel Decimal Digit - 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	3656 3657 3658 3659 3660 3661 3662
SLOT6.2.1.5	Channel Filter				
P3663	Slot 6 - Analogue Input Channel Filter - 1 Slot 6 - Analogue Input Channel Filter - 2 Slot 6 - Analogue Input Channel Filter - 3 Slot 6 - Analogue Input Channel Filter - 4 Slot 6 - Analogue Input Channel Filter - 5 Slot 6 - Analogue Input Channel Filter - 6 Slot 6 - Analogue Input Channel Filter - 7	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	3663 3664 3665 3666 3667 3668 3669
SLOT6.2.1.6	Channel Gain				
P3670	Slot 6 - Analogue Input Channel Gain - 1 Slot 6 - Analogue Input Channel Gain - 2 Slot 6 - Analogue Input Channel Gain - 3 Slot 6 - Analogue Input Channel Gain - 4 Slot 6 - Analogue Input Channel Gain - 5 Slot 6 - Analogue Input Channel Gain - 6 Slot 6 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3670 3671 3672 3673 3674 3675 3676
SLOT6.2.1.7	Channel Offset				
P3678	Slot 6 - Analogue Input Channel Offset - 1	-32768 to 32767	0	rw, s16bit	3678

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 6 - Analogue Input Channel Offset - 2 Slot 6 - Analogue Input Channel Offset - 3 Slot 6 - Analogue Input Channel Offset - 4 Slot 6 - Analogue Input Channel Offset - 5 Slot 6 - Analogue Input Channel Offset - 6 Slot 6 - Analogue Input Channel Offset - 7				3679 3680 3681 3682 3683 3684
SLOT6.2.2	Status				
SLOT6.2.2.1	Analogue Input 16 Bits				
P3600	Slot 6 - Read Analogue Input 16 Bits - 1 Slot 6 - Read Analogue Input 16 Bits - 2 Slot 6 - Read Analogue Input 16 Bits - 3 Slot 6 - Read Analogue Input 16 Bits - 4 Slot 6 - Read Analogue Input 16 Bits - 5 Slot 6 - Read Analogue Input 16 Bits - 6 Slot 6 - Read Analogue Input 16 Bits - 7	-32768 to 32767	-	ro, s16bit	3600 3601 3602 3603 3604 3605 3606
SLOT6.2.2.2	Analogue Channel Status				
P3607	Slot 6 - Analogue Channel Status - 1 Slot 6 - Analogue Channel Status - 2 Slot 6 - Analogue Channel Status - 3 Slot 6 - Analogue Channel Status - 4 Slot 6 - Analogue Channel Status - 5 Slot 6 - Analogue Channel Status - 6 Slot 6 - Analogue Channel Status - 7	0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	3607 3608 3609 3610 3611 3612 3613
	SLOT6.3 Slot 6\Analog Output				
SLOT6.3.1	Configuration				
SLOT6.3.1.1	Error Mode				
P5608	Slot 6 - Analogue Output Error Mode - 1 Slot 6 - Analogue Output Error Mode - 2 Slot 6 - Analogue Output Error Mode - 3 Slot 6 - Analogue Output Error Mode - 4 Slot 6 - Analogue Output Error Mode - 5 Slot 6 - Analogue Output Error Mode - 6 Slot 6 - Analogue Output Error Mode - 7 Slot 6 - Analogue Output Error Mode - 8	0 to 255	0	rw, 8bit	5608 5609 5610 5611 5612 5613 5614 5615
SLOT6.3.1.2	Error Value				
P5616	Slot 6 - Analogue Output Error Value - 1 Slot 6 - Analogue Output Error Value - 2 Slot 6 - Analogue Output Error Value - 3 Slot 6 - Analogue Output Error Value - 4 Slot 6 - Analogue Output Error Value - 5 Slot 6 - Analogue Output Error Value - 6 Slot 6 - Analogue Output Error Value - 7 Slot 6 - Analogue Output Error Value - 8	-32768 to 32767	0	rw, s16bit	5616 5617 5618 5619 5620 5621 5622 5623
SLOT6.3.1.3	Channel Gain				

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
P5632	Slot 6 - Analogue Output Channel Gain - 1 Slot 6 - Analogue Output Channel Gain - 2 Slot 6 - Analogue Output Channel Gain - 3 Slot 6 - Analogue Output Channel Gain - 4 Slot 6 - Analogue Output Channel Gain - 5 Slot 6 - Analogue Output Channel Gain - 6 Slot 6 - Analogue Output Channel Gain - 7 Slot 6 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5632 5633 5634 5635 5636 5637 5638 5639
SLOT6.3.1.4	Channel Offset				
P5640	Slot 6 - Analogue Output Channel Offset - 1 Slot 6 - Analogue Output Channel Offset - 2 Slot 6 - Analogue Output Channel Offset - 3 Slot 6 - Analogue Output Channel Offset - 4 Slot 6 - Analogue Output Channel Offset - 5 Slot 6 - Analogue Output Channel Offset - 6 Slot 6 - Analogue Output Channel Offset - 7 Slot 6 - Analogue Output Channel Offset - 8	-32768 to 32767	0	rw, s16bit	5640 5641 5642 5643 5644 5645 5646 5647
SLOT6.3.2	Analogue Output Value 16 Bits				
P5600	Slot 6 - Write Analogue Output 16-Bit - 1 Slot 6 - Write Analogue Output 16-Bit - 2 Slot 6 - Write Analogue Output 16-Bit - 3 Slot 6 - Write Analogue Output 16-Bit - 4 Slot 6 - Write Analogue Output 16-Bit - 5 Slot 6 - Write Analogue Output 16-Bit - 6 Slot 6 - Write Analogue Output 16-Bit - 7 Slot 6 - Write Analogue Output 16-Bit - 8	-32768 to 32767	0	rw, s16bit	5600 5601 5602 5603 5604 5605 5606 5607
SLOT6.4 Slot 6\Analog Input (SG)					
SLOT6.4.1	Configuration				
SLOT6.4.1.1	Channel Enable				
P7618	Slot 6 - Analogue SG Channel Enable - 1 Slot 6 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	1	rw, enum	7618 7619
SLOT6.4.1.2	Channel Unit				
P7620	Slot 6 - Analogue SG Channel Unit - 1 Slot 6 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t	0	rw, enum	7620 7621
SLOT6.4.1.3	Channel Filter				
P7622	Slot 6 - Analogue SG Channel Filter - 1 Slot 6 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	7622 7623

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT6.4.1.4	Channel Gain				
P7624	Slot 6 - Analogue SG Channel Gain - 1 Slot 6 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7624 7625
SLOT6.4.1.5	Channel Offset				
P7626	Slot 6 - Analogue SG Channel Offset - 1 Slot 6 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7626 7628
SLOT6.4.1.6	Channel Full Scale				
P7630	Slot 6 - Analogue SG Channel Full Scale - 1 Slot 6 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7630 7631
SLOT6.4.1.7	Channel Sensibility				
P7632	Slot 6 - Analogue SG Channel Sensibility - 1 Slot 6 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7632 7633
SLOT6.4.1.8	Channel Sample Rate				
P7634	Slot 6 - Analogue SG Channel Sample Rate - 1 Slot 6 - Analogue SG Channel Sample Rate - 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	7634 7635
SLOT6.4.1.9	Channel Maximum Variation				
P7636	Slot 6 - Analogue SG Channel Maximum Variation - 1 Slot 6 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7636 7638
SLOT6.4.1.10	Channel Discart Value				
P7640	Slot 6 - Analogue SG Channel Discard Value - 1 Slot 6 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7640 7641
SLOT6.4.1.11	Channel TAU				
P7642	Slot 6 - Analogue SG Channel Filter TAU - 1 Slot 6 - Analogue SG Channel Filter TAU - 2	0 to 65535	0	rw, 16bit	7642 7643
SLOT6.4.1.12	Channel Variation Step				
P7644	Slot 6 - Analogue SG Channel Variation Step - 1 Slot 6 - Analogue SG Channel Variation Step - 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	7644 7645
SLOT6.4.2	Status				
SLOT6.4.2.1	Read Weight 16 Bits				
P7600	Slot 6 - Read Weight 16 Bits - 1 Slot 6 - Read Weight 16 Bits - 2	-32768 to 32767	-	ro, s16bit	7600 7601
SLOT6.4.2.2	Read Weight 32 Bits				

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
P7602	Slot 6 - Read Weight 32 Bits - 1 Slot 6 - Read Weight 32 Bits - 2	-2147483648 to 2147483647	-	ro, s32bit	7602 7604
SLOT6.4.2.3	SG Analogue Channel Status				
P7606	Slot 6 - Analogue SG Channel Status - 1 Slot 6 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7606 7607
SLOT7.1 Slot 7\Digital Input/Output					
SLOT7.1.1	Write Outputs (DOs)				
P1702	Slot 7 - Write 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	1702
SLOT7.1.2	Read Inputs (DIs)				
P1700	Slot 7 - Read 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	-	ro, 32bit	1700

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		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			
SLOT7.1.3	Configuration				
P1704	Slot 7 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1704
P1706	Slot 7 - Error Value	0 to 4294967295	0	rw, 32bit	1706
		SLOT7.2 Slot 7\Analog Input (AI, TH, RTD)			
SLOT7.2.1	Configuration				
SLOT7.2.1.1	Channel Enable				
P3735	Slot 7 - Analogue Input Channel Enable - 1 Slot 7 - Analogue Input Channel Enable - 2 Slot 7 - Analogue Input Channel Enable - 3 Slot 7 - Analogue Input Channel Enable - 4 Slot 7 - Analogue Input Channel Enable - 5 Slot 7 - Analogue Input Channel Enable - 6 Slot 7 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv	1	rw, enum	3735 3736 3737 3738 3739 3740 3741
SLOT7.2.1.2	Channel Type				
P3742	Slot 7 - Analogue Input Channel Type - 1 Slot 7 - Analogue Input Channel Type - 2 Slot 7 - Analogue Input Channel Type - 3 Slot 7 - Analogue Input Channel Type - 4 Slot 7 - Analogue Input Channel Type - 5 Slot 7 - Analogue Input Channel Type - 6 Slot 7 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100 1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv	0	rw, enum	3742 3743 3744 3745 3746 3747 3748
SLOT7.2.1.3	Channel Unit				
P3749	Slot 7 - Analogue Input Channel Unit 1 - 1 Slot 7 - Analogue Input Channel Unit 1 - 2 Slot 7 - Analogue Input Channel Unit 1 - 3 Slot 7 - Analogue Input Channel Unit 1 - 4 Slot 7 - Analogue Input Channel Unit 1 - 5 Slot 7 - Analogue Input Channel Unit 1 - 6 Slot 7 - Analogue Input Channel Unit 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	3749 3750 3751 3752 3753 3754 3755

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT7.2.1.4	Channel Decimal Digit				
P3756	Slot 7 - Analogue Input Channel Decimal Digit - 1 Slot 7 - Analogue Input Channel Decimal Digit - 2 Slot 7 - Analogue Input Channel Decimal Digit - 3 Slot 7 - Analogue Input Channel Decimal Digit - 4 Slot 7 - Analogue Input Channel Decimal Digit - 5 Slot 7 - Analogue Input Channel Decimal Digit - 6 Slot 7 - Analogue Input Channel Decimal Digit - 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	3756 3757 3758 3759 3760 3761 3762
SLOT7.2.1.5	Channel Filter				
P3763	Slot 7 - Analogue Input Channel Filter - 1 Slot 7 - Analogue Input Channel Filter - 2 Slot 7 - Analogue Input Channel Filter - 3 Slot 7 - Analogue Input Channel Filter - 4 Slot 7 - Analogue Input Channel Filter - 5 Slot 7 - Analogue Input Channel Filter - 6 Slot 7 - Analogue Input Channel Filter - 7	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	3763 3764 3765 3766 3767 3768 3769
SLOT7.2.1.6	Channel Gain				
P3770	Slot 7 - Analogue Input Channel Gain - 1 Slot 7 - Analogue Input Channel Gain - 2 Slot 7 - Analogue Input Channel Gain - 3 Slot 7 - Analogue Input Channel Gain - 4 Slot 7 - Analogue Input Channel Gain - 5 Slot 7 - Analogue Input Channel Gain - 6 Slot 7 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3770 3771 3772 3773 3774 3775 3776
SLOT7.2.1.7	Channel Offset				
P3778	Slot 7 - Analogue Input Channel Offset - 1 Slot 7 - Analogue Input Channel Offset - 2 Slot 7 - Analogue Input Channel Offset - 3 Slot 7 - Analogue Input Channel Offset - 4 Slot 7 - Analogue Input Channel Offset - 5 Slot 7 - Analogue Input Channel Offset - 6 Slot 7 - Analogue Input Channel Offset - 7	-32768 to 32767	0	rw, s16bit	3778 3779 3780 3781 3782 3783 3784
SLOT7.2.2	Status				
SLOT7.2.2.1	Analogue Input 16 Bits				
P3700	Slot 7 - Read Analogue Input 16 Bits - 1 Slot 7 - Read Analogue Input 16 Bits - 2 Slot 7 - Read Analogue Input 16 Bits - 3 Slot 7 - Read Analogue Input 16 Bits - 4 Slot 7 - Read Analogue Input 16 Bits - 5	-32768 to 32767	-	ro, s16bit	3700 3701 3702 3703 3704

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 7 - Read Analogue Input 16 Bits - 6 Slot 7 - Read Analogue Input 16 Bits - 7				3705 3706
SLOT7.2.2.2	Analogue Channel Status				
P3707	Slot 7 - Analogue Channel Status - 1 Slot 7 - Analogue Channel Status - 2 Slot 7 - Analogue Channel Status - 3 Slot 7 - Analogue Channel Status - 4 Slot 7 - Analogue Channel Status - 5 Slot 7 - Analogue Channel Status - 6 Slot 7 - Analogue Channel Status - 7	0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled 2 = ai: Open / th: Open / rtd: Open	-	ro, enum	3707 3708 3709 3710 3711 3712 3713
SLOT7.3 Slot 7\Analog Output					
SLOT7.3.1	Configuration				
SLOT7.3.1.1	Error Mode				
P5708	Slot 7 - Analogue Output Error Mode - 1 Slot 7 - Analogue Output Error Mode - 2 Slot 7 - Analogue Output Error Mode - 3 Slot 7 - Analogue Output Error Mode - 4 Slot 7 - Analogue Output Error Mode - 5 Slot 7 - Analogue Output Error Mode - 6 Slot 7 - Analogue Output Error Mode - 7 Slot 7 - Analogue Output Error Mode - 8	0 to 255	0	rw, 8bit	5708 5709 5710 5711 5712 5713 5714 5715
SLOT7.3.1.2	Error Value				
P5716	Slot 7 - Analogue Output Error Value - 1 Slot 7 - Analogue Output Error Value - 2 Slot 7 - Analogue Output Error Value - 3 Slot 7 - Analogue Output Error Value - 4 Slot 7 - Analogue Output Error Value - 5 Slot 7 - Analogue Output Error Value - 6 Slot 7 - Analogue Output Error Value - 7 Slot 7 - Analogue Output Error Value - 8	-32768 to 32767	0	rw, s16bit	5716 5717 5718 5719 5720 5721 5722 5723
SLOT7.3.1.3	Channel Gain				
P5732	Slot 7 - Analogue Output Channel Gain - 1 Slot 7 - Analogue Output Channel Gain - 2 Slot 7 - Analogue Output Channel Gain - 3 Slot 7 - Analogue Output Channel Gain - 4 Slot 7 - Analogue Output Channel Gain - 5 Slot 7 - Analogue Output Channel Gain - 6 Slot 7 - Analogue Output Channel Gain - 7 Slot 7 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5732 5733 5734 5735 5736 5737 5738 5739
SLOT7.3.1.4	Channel Offset				
P5740	Slot 7 - Analogue Output Channel Offset - 1 Slot 7 - Analogue Output Channel Offset - 2 Slot 7 - Analogue Output Channel Offset - 3 Slot 7 - Analogue Output Channel Offset - 4	-32768 to 32767	0	rw, s16bit	5740 5741 5742 5743

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
	Slot 7 - Analogue Output Channel Offset - 5 Slot 7 - Analogue Output Channel Offset - 6 Slot 7 - Analogue Output Channel Offset - 7 Slot 7 - Analogue Output Channel Offset - 8				5744 5745 5746 5747
SLOT7.3.2	Analogue Output Value 16 Bits				
P5700	Slot 7 - Write Analogue Output 16-Bit - 1 Slot 7 - Write Analogue Output 16-Bit - 2 Slot 7 - Write Analogue Output 16-Bit - 3 Slot 7 - Write Analogue Output 16-Bit - 4 Slot 7 - Write Analogue Output 16-Bit - 5 Slot 7 - Write Analogue Output 16-Bit - 6 Slot 7 - Write Analogue Output 16-Bit - 7 Slot 7 - Write Analogue Output 16-Bit - 8	-32768 to 32767	0	rw, s16bit	5700 5701 5702 5703 5704 5705 5706 5707
SLOT7.4 Slot 7\Analog Input (SG)					
SLOT7.4.1	Configuration				
SLOT7.4.1.1	Channel Enable				
P7718	Slot 7 - Analogue SG Channel Enable - 1 Slot 7 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	1	rw, enum	7718 7719
SLOT7.4.1.2	Channel Unit				
P7720	Slot 7 - Analogue SG Channel Unit - 1 Slot 7 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t	0	rw, enum	7720 7721
SLOT7.4.1.3	Channel Filter				
P7722	Slot 7 - Analogue SG Channel Filter - 1 Slot 7 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	7722 7723
SLOT7.4.1.4	Channel Gain				
P7724	Slot 7 - Analogue SG Channel Gain - 1 Slot 7 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7724 7725
SLOT7.4.1.5	Channel Offset				
P7726	Slot 7 - Analogue SG Channel Offset - 1 Slot 7 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7726 7728
SLOT7.4.1.6	Channel Full Scale				
P7730	Slot 7 - Analogue SG Channel Full Scale - 1 Slot 7 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7730 7731
SLOT7.4.1.7	Channel Sensibility				
P7732	Slot 7 - Analogue SG Channel Sensibility - 1 Slot 7 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7732 7733

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT7.4.1.8	Channel Sample Rate				
P7734	Slot 7 - Analogue SG Channel Sample Rate - 1 Slot 7 - Analogue SG Channel Sample Rate - 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	7734 7735
SLOT7.4.1.9	Channel Maximum Variation				
P7736	Slot 7 - Analogue SG Channel Maximum Variation - 1 Slot 7 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7736 7738
SLOT7.4.1.10	Channel Discart Value				
P7740	Slot 7 - Analogue SG Channel Discard Value - 1 Slot 7 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7740 7741
SLOT7.4.1.11	Channel TAU				
P7742	Slot 7 - Analogue SG Channel Filter TAU - 1 Slot 7 - Analogue SG Channel Filter TAU - 2	0 to 65535	0	rw, 16bit	7742 7743
SLOT7.4.1.12	Channel Variation Step				
P7744	Slot 7 - Analogue SG Channel Variation Step - 1 Slot 7 - Analogue SG Channel Variation Step - 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	7744 7745
SLOT7.4.2	Status				
SLOT7.4.2.1	Read Weight 16 Bits				
P7700	Slot 7 - Read Weight 16 Bits - 1 Slot 7 - Read Weight 16 Bits - 2	-32768 to 32767	-	ro, s16bit	7700 7701
SLOT7.4.2.2	Read Weight 32 Bits				
P7702	Slot 7 - Read Weight 32 Bits - 1 Slot 7 - Read Weight 32 Bits - 2	-2147483648 to 2147483647	-	ro, s32bit	7702 7704
SLOT7.4.2.3	SG Analogue Channel Status				
P7706	Slot 7 - Analogue SG Channel Status - 1 Slot 7 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7706 7707
SLOT8.1 Slot 8\Digital Input/Output					
SLOT8.1.1	Write Outputs (DOs)				
P1802	Slot 8 - Write Digital Outputs (DOs)	Bit 0 = DO01 Bit 1 = DO02 Bit 2 = DO03	0	rw, 32bit	1802

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		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			
SLOT8.1.2	Read Inputs (DIs)				
P1800	Slot 8 - Read 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	1800
SLOT8.1.3	Configuration				
P1804	Slot 8 - Error Mode Output	0 to 4294967295	0	rw, 32bit	1804
P1806	Slot 8 - Error Value	0 to 4294967295	0	rw, 32bit	1806

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT8.2 Slot 8\Analog Input (AI, TH, RTD)					
SLOT8.2.1	Configuration				
SLOT8.2.1.1	Channel Enable				
P3835	Slot 8 - Analogue Input Channel Enable - 1 Slot 8 - Analogue Input Channel Enable - 2 Slot 8 - Analogue Input Channel Enable - 3 Slot 8 - Analogue Input Channel Enable - 4 Slot 8 - Analogue Input Channel Enable - 5 Slot 8 - Analogue Input Channel Enable - 6 Slot 8 - Analogue Input Channel Enable - 7	0 = Disable / Disable / Disable 1 = Enable / Enable With CJC / Enable 2 = Reserv / Enable No CJC / Reserv	1	rw, enum	3835 3836 3837 3838 3839 3840 3841
SLOT8.2.1.2	Channel Type				
P3842	Slot 8 - Analogue Input Channel Type - 1 Slot 8 - Analogue Input Channel Type - 2 Slot 8 - Analogue Input Channel Type - 3 Slot 8 - Analogue Input Channel Type - 4 Slot 8 - Analogue Input Channel Type - 5 Slot 8 - Analogue Input Channel Type - 6 Slot 8 - Analogue Input Channel Type - 7	0 = AI: 0-10V / TH: J / PT100 1 = AI: 0-20mA / TH: K / PT1000 2 = AI: 4-20mA / TH: T / Reserv	0	rw, enum	3842 3843 3844 3845 3846 3847 3848
SLOT8.2.1.3	Channel Unit				
P3849	Slot 8 - Analogue Input Channel Unit 1 - 1 Slot 8 - Analogue Input Channel Unit 1 - 2 Slot 8 - Analogue Input Channel Unit 1 - 3 Slot 8 - Analogue Input Channel Unit 1 - 4 Slot 8 - Analogue Input Channel Unit 1 - 5 Slot 8 - Analogue Input Channel Unit 1 - 6 Slot 8 - Analogue Input Channel Unit 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	3849 3850 3851 3852 3853 3854 3855
SLOT8.2.1.4	Channel Decimal Digit				
P3856	Slot 8 - Analogue Input Channel Decimal Digit - 1 Slot 8 - Analogue Input Channel Decimal Digit - 2 Slot 8 - Analogue Input Channel Decimal Digit - 3 Slot 8 - Analogue Input Channel Decimal Digit - 4 Slot 8 - Analogue Input Channel Decimal Digit - 5 Slot 8 - Analogue Input Channel Decimal Digit - 6 Slot 8 - Analogue Input Channel Decimal Digit - 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	3856 3857 3858 3859 3860 3861 3862
SLOT8.2.1.5	Channel Filter				

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
P3863	Slot 8 - Analogue Input Channel Filter - 1 Slot 8 - Analogue Input Channel Filter - 2 Slot 8 - Analogue Input Channel Filter - 3 Slot 8 - Analogue Input Channel Filter - 4 Slot 8 - Analogue Input Channel Filter - 5 Slot 8 - Analogue Input Channel Filter - 6 Slot 8 - Analogue Input Channel Filter - 7	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	3863 3864 3865 3866 3867 3868 3869
SLOT8.2.1.6	Channel Gain				
P3870	Slot 8 - Analogue Input Channel Gain - 1 Slot 8 - Analogue Input Channel Gain - 2 Slot 8 - Analogue Input Channel Gain - 3 Slot 8 - Analogue Input Channel Gain - 4 Slot 8 - Analogue Input Channel Gain - 5 Slot 8 - Analogue Input Channel Gain - 6 Slot 8 - Analogue Input Channel Gain - 7	-32768 to 32767	1000	rw, s16bit	3870 3871 3872 3873 3874 3875 3876
SLOT8.2.1.7	Channel Offset				
P3878	Slot 8 - Analogue Input Channel Offset - 1 Slot 8 - Analogue Input Channel Offset - 2 Slot 8 - Analogue Input Channel Offset - 3 Slot 8 - Analogue Input Channel Offset - 4 Slot 8 - Analogue Input Channel Offset - 5 Slot 8 - Analogue Input Channel Offset - 6 Slot 8 - Analogue Input Channel Offset - 7	-32768 to 32767	0	rw, s16bit	3878 3879 3880 3881 3882 3883 3884
SLOT8.2.2	Status				
SLOT8.2.2.1	Analogue Input 16 Bits				
P3800	Slot 8 - Read Analogue Input 16 Bits - 1 Slot 8 - Read Analogue Input 16 Bits - 2 Slot 8 - Read Analogue Input 16 Bits - 3 Slot 8 - Read Analogue Input 16 Bits - 4 Slot 8 - Read Analogue Input 16 Bits - 5 Slot 8 - Read Analogue Input 16 Bits - 6 Slot 8 - Read Analogue Input 16 Bits - 7	-32768 to 32767	-	ro, s16bit	3800 3801 3802 3803 3804 3805 3806
SLOT8.2.2.2	Analogue Channel Status				
P3807	Slot 8 - Analogue Channel Status - 1 Slot 8 - Analogue Channel Status - 2 Slot 8 - Analogue Channel Status - 3 Slot 8 - Analogue Channel Status - 4 Slot 8 - Analogue Channel Status - 5 Slot 8 - Analogue Channel Status - 6 Slot 8 - Analogue Channel Status - 7	0 = ai: Disabled / th: Disabled / rtd: Disabled 1 = ai: Enabled / th: Enabled / rdt: Enabled	-	ro, enum	3807 3808 3809 3810 3811 3812 3813

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
		2 = ai: Open / th: Open / rtd: Open			
SLOT8.3 Slot 8\Analog Output					
SLOT8.3.1	Configuration				
SLOT8.3.1.1	Error Mode				
P5808	Slot 8 - Analogue Output Error Mode - 1 Slot 8 - Analogue Output Error Mode - 2 Slot 8 - Analogue Output Error Mode - 3 Slot 8 - Analogue Output Error Mode - 4 Slot 8 - Analogue Output Error Mode - 5 Slot 8 - Analogue Output Error Mode - 6 Slot 8 - Analogue Output Error Mode - 7 Slot 8 - Analogue Output Error Mode - 8	0 to 255	0	rw, 8bit	5808 5809 5810 5811 5812 5813 5814 5815
SLOT8.3.1.2	Error Value				
P5816	Slot 8 - Analogue Output Error Value - 1 Slot 8 - Analogue Output Error Value - 2 Slot 8 - Analogue Output Error Value - 3 Slot 8 - Analogue Output Error Value - 4 Slot 8 - Analogue Output Error Value - 5 Slot 8 - Analogue Output Error Value - 6 Slot 8 - Analogue Output Error Value - 7 Slot 8 - Analogue Output Error Value - 8	-32768 to 32767	0	rw, s16bit	5816 5817 5818 5819 5820 5821 5822 5823
SLOT8.3.1.3	Channel Gain				
P5832	Slot 8 - Analogue Output Channel Gain - 1 Slot 8 - Analogue Output Channel Gain - 2 Slot 8 - Analogue Output Channel Gain - 3 Slot 8 - Analogue Output Channel Gain - 4 Slot 8 - Analogue Output Channel Gain - 5 Slot 8 - Analogue Output Channel Gain - 6 Slot 8 - Analogue Output Channel Gain - 7 Slot 8 - Analogue Output Channel Gain - 8	0 to 65535	1000	rw, 16bit	5832 5833 5834 5835 5836 5837 5838 5839
SLOT8.3.1.4	Channel Offset				
P5840	Slot 8 - Analogue Output Channel Offset - 1 Slot 8 - Analogue Output Channel Offset - 2 Slot 8 - Analogue Output Channel Offset - 3 Slot 8 - Analogue Output Channel Offset - 4 Slot 8 - Analogue Output Channel Offset - 5 Slot 8 - Analogue Output Channel Offset - 6 Slot 8 - Analogue Output Channel Offset - 7 Slot 8 - Analogue Output Channel Offset - 8	-32768 to 32767	0	rw, s16bit	5840 5841 5842 5843 5844 5845 5846 5847
SLOT8.3.2	Analogue Output Value 16 Bits				
P5800	Slot 8 - Write Analogue Output 16-Bit - 1 Slot 8 - Write Analogue Output 16-Bit - 2 Slot 8 - Write Analogue Output 16-Bit - 3 Slot 8 - Write Analogue Output 16-Bit - 4 Slot 8 - Write Analogue Output 16-Bit - 5 Slot 8 - Write Analogue Output 16-Bit - 6 Slot 8 - Write Analogue Output 16-Bit - 7 Slot 8 - Write Analogue Output 16-Bit - 8	-32768 to 32767	0	rw, s16bit	5800 5801 5802 5803 5804 5805 5806 5807

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT8.4 Slot 8\Analog Input (SG)					
SLOT8.4.1	Configuration				
SLOT8.4.1.1	Channel Enable				
P7818	Slot 8 - Analogue SG Channel Enable - 1 Slot 8 - Analogue SG Channel Enable - 2	0 = Disable 1 = Enable	1	rw, enum	7818 7819
SLOT8.4.1.2	Channel Unit				
P7820	Slot 8 - Analogue SG Channel Unit - 1 Slot 8 - Analogue SG Channel Unit - 2	0 = g 1 = kg 2 = t	0	rw, enum	7820 7821
SLOT8.4.1.3	Channel Filter				
P7822	Slot 8 - Analogue SG Channel Filter - 1 Slot 8 - Analogue SG Channel Filter - 2	0 = No Filter 1 = Average 2 Values 2 = Average 4 Values 3 = Average 8 Values 4 = Average 16 Values 5 = Average 32 Values	4	rw, enum	7822 7823
SLOT8.4.1.4	Channel Gain				
P7824	Slot 8 - Analogue SG Channel Gain - 1 Slot 8 - Analogue SG Channel Gain - 2	-32768 to 32767	1000	rw, s16bit	7824 7825
SLOT8.4.1.5	Channel Offset				
P7826	Slot 8 - Analogue SG Channel Offset - 1 Slot 8 - Analogue SG Channel Offset - 2	-2147483648 to 2147483647	0	rw, s32bit	7826 7828
SLOT8.4.1.6	Channel Full Scale				
P7830	Slot 8 - Analogue SG Channel Full Scale - 1 Slot 8 - Analogue SG Channel Full Scale - 2	0 to 65535	10000	rw, 16bit	7830 7831
SLOT8.4.1.7	Channel Sensibility				
P7832	Slot 8 - Analogue SG Channel Sensibility - 1 Slot 8 - Analogue SG Channel Sensibility - 2	0 to 255	2	rw, 8bit	7832 7833
SLOT8.4.1.8	Channel Sample Rate				
P7834	Slot 8 - Analogue SG Channel Sample Rate - 1 Slot 8 - Analogue SG Channel Sample Rate - 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	7834 7835
SLOT8.4.1.9	Channel Maximum Variation				
P7836	Slot 8 - Analogue SG Channel Maximum Variation - 1 Slot 8 - Analogue SG Channel Maximum Variation - 2	0 to 4294967295	100000	rw, 32bit	7836 7838

Parameter	Description	Range of values	Factory setting	Properties	Communication Address
SLOT8.4.1.10	Channel Discart Value				
P7840	Slot 8 - Analogue SG Channel Discard Value - 1 Slot 8 - Analogue SG Channel Discard Value - 2	0 = Keep 1 = Discard	0	rw, enum	7840 7841
SLOT8.4.1.11	Channel TAU				
P7842	Slot 8 - Analogue SG Channel Filter TAU - 1 Slot 8 - Analogue SG Channel Filter TAU - 2	0 to 65535	0	rw, 16bit	7842 7843
SLOT8.4.1.12	Channel Variation Step				
P7844	Slot 8 - Analogue SG Channel Variation Step - 1 Slot 8 - Analogue SG Channel Variation Step - 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	7844 7845
SLOT8.4.2	Status				
SLOT8.4.2.1	Read Weight 16 Bits				
P7800	Slot 8 - Read Weight 16 Bits - 1 Slot 8 - Read Weight 16 Bits - 2	-32768 to 32767	-	ro, s16bit	7800 7801
SLOT8.4.2.2	Read Weight 32 Bits				
P7802	Slot 8 - Read Weight 32 Bits - 1 Slot 8 - Read Weight 32 Bits - 2	-2147483648 to 2147483647	-	ro, s32bit	7802 7804
SLOT8.4.2.3	SG Analogue Channel Status				
P7806	Slot 8 - Analogue SG Channel Status - 1 Slot 8 - Analogue SG Channel Status - 2	0 = Disable 1 = Enable	-	ro, enum	7806 7807

Table A.3: *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.
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.

WEG Drives & Controls - Automação LTDA.
Jaraguá do Sul – SC – Brazil
Phone 55 (47) 3276-4000 – Fax 55 (47) 3276-4020
São Paulo – SP – Brazil
Phone 55 (11) 5053-2300 – Fax 55 (11) 5052-4212
automacao@weg.net
www.weg.net