Boutronic

SDI-12 to LAN converter

JGA-2060

Version 1.0c

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Introduction

The JGA2060 makes it possible to communicate with SDI-12 sensors via a LAN connection. The information of the connected sensors can be extracted via Modbus TCP, and with the Boutronic Studio 3.

To make use of the SDI-12 interface, it is possible to connect with the Boutronic Studio 3 from version 3.0a r19. In the Boutronic Studio 3 it is possible to view information about the JGA2060 and the connected sensors, it is also possible to view and change setting of the JGA2060. The Boutronic Studio 3 is downloadable from the website of Boutronic.

Key features

- SDI-12 sensor interface
- Modbus TCP/IP communication
- Ethernet LAN connectivity
- Integrated 12V sensor supply (max. 200 mA)
- 2 digital inputs
- 2 digital outputs
- DIN-rail mounting
- Configuration via BoutronicStudio 3

Connection details

Below is a schematic display of the housing and connections.



Connection	Name	Description
1.	+24VDC IN	+ power supply in
2.	GND	- power supply in
3.	+24VDC OUT	Power supply out
4.	OUTPUT 1	Output 1
5.	OUTPUT 2	Output 2
6.	GND	Ground for the I/O
7.	INPUT 1	Input 1
8.	INPUT 2	Input 2
9.	NC	Not used (don’t connect)
10.	+12VDC	SDI-12 power supply +
11.	SDI-12	SDI-12 data connection
12.	GND	SDI-12 power supply -

Power supply in

The power supply for the JGA2060 must be 24 VDC, this supply powers the internal hardware, and the connected SDI-12 sensor(s).

Power supply out

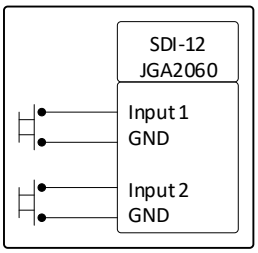
This connection is to supply the outputs with power. This output is directly coupled to the power supply input, and it is not secured.

Digital inputs

There are 2 digital inputs available on the JGA2060. An input function can be assigned per input.

Connecting

To activate the input, it must be connected with the GND connection.



Functions

The inputs can only be assigned the input function Modbus controlled at this time.

Modbus controlled

The status of the input can be read via the Modbus connection.

Settings

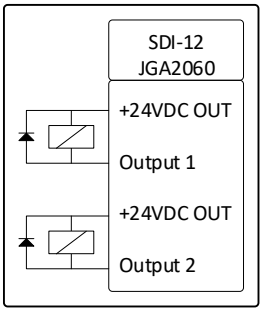
Setting	Description	Default
Type	This setting indicates the type of input (NO/NC).	NO
Function	This setting indicates what function the input has.	Modbus controlled

Digital outputs

There are 2 digital outputs available on the JGA2060. The function of each output can be set individually.

Connecting

The digital outputs switch by means of NPN and the GND.



Functions

The outputs can only be assigned the output function Modbus controlled at this time.

Modbus controlled

The status of the output can be controlled via the Modbus connection.

Settings

Setting	Description	Default
Type	This setting indicates the type of input (NO/NC).	NO
Function	This setting indicates what function the output has.	Modbus controlled

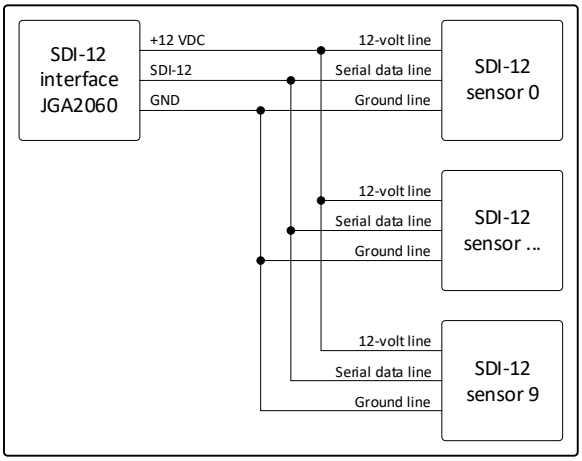
SDI-12 connections

Sensors with the SDI-12 protocol make use of three connections, the table below describes which connections, and what they are used for.

Connection print	Connection sensor	Description
10. +12VDC	12-volt line	This connection provides the +12 VDC for the sensor(s). It provides a current of 200 mA maximum.
11. SDI-12	Serial data line	This connection provides the communication between the sensor(s) and the print.
12. GND	Ground line	This connection provides the GND for the sensor(s).

It is possible to connect a maximum of ten SDI-12 sensors in parallel with the print. The figure below shows how to connect multiple sensors.

Each sensor must have an unique ID number, and the maximum current the SDI-12 power supply can deliver is 200 mA.



LAN port

It is possible to connect the JGA2060 to an ethernet network with the LAN port. The JGA2060 communicates with the Boutronic Studio and/or the Modbus TCP clients through this connection.

See chapter Network settings for settings regarding this connection.

Firmware port

It is possible to connect the JGA2060 to a PC with this port, using the Boutronic programming cable. It becomes possible to view or adjust the settings using the terminal or the Boutronic Studio. This port is also used to update the firmware. This port becomes accessible after removing the front of the housing.

DIP switches

There are five DIP switches which become accessible after removing the front of the housing; a single firmware DIP switch, and a quadruple DIP switch.

Firmware DIP switch

When this DIP switch is activated, the microcontroller is set to receive a firmware update, and the FRMW LED glows red. Only use this switch after consultation with your supplier.

DIP switches 1 to 4

With the use of the DIP switches, the functioning of the JGA2060 can be adjusted quickly. In the table below is described what the functions of the DIP switches are.

DIP switch	Description	Value
1	This DIP switch can be used to indicate whether one or more sensors are used.	0 (OFF): single sensor 1 (ON): multiple sensors
2	With this DIP-switch you can select if the measurements are read with CRC checksum.	0 (OFF): No CRC 1 (ON): With CRC
3	This DIP switch can be used to switch from a static IP address to a dynamic IP address.	
4	This DIP switch can be used to display the last three numbers of the IP address, or the entire IP address on the LAN LED.	0 (OFF): last three numbers 1 (ON): entire IP address

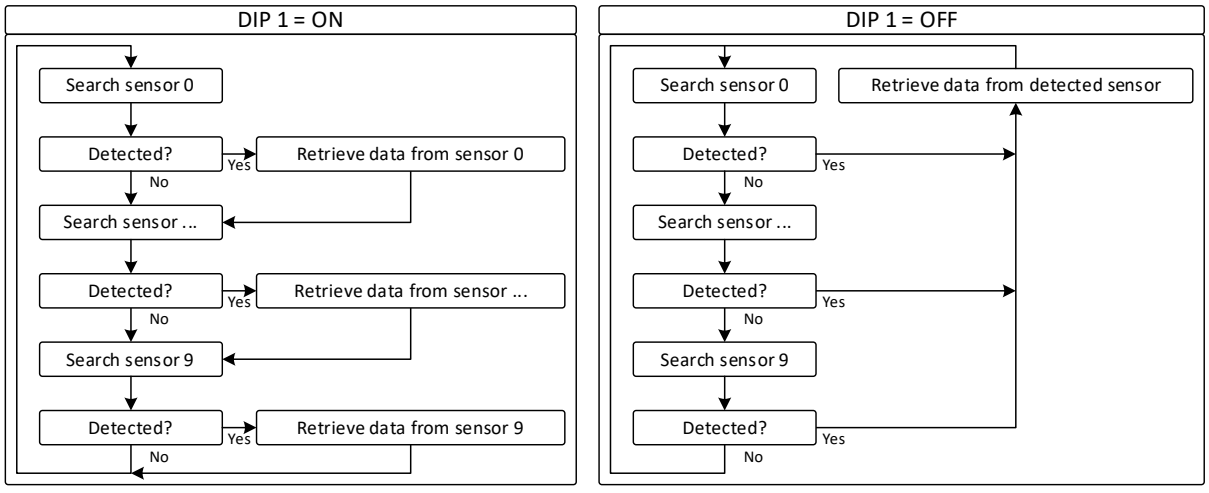
DIP1

The use of a single or multiple sensors is indicated with DIP1.

When multiple sensors are in use, DIP1 must be set on. The JGA2060 will continuously scan all possible sensors, to detect if they are connected.

When DIP1 is set off, the JGA2060 will not scan for other sensors when it has found a connected sensor. This results in shorter intervals between retrieving measured values from the sensor, because the following possible sensors don't have to be scanned anymore.

Below is a schematic representation of the procedure with DIP1 on and off.



DIP2

For additional checks, measurements with a check number can be requested (from SDI-12 version 1.3). If this option is enabled, the SDI-12 interface will check the check number and will not accept the measurement if the number is incorrect.

DIP-switch stand	Omschrijving
0 (OFF)	CRC not enabled
1 (ON)	CRC enabled



This is supported from SDI-12 version 1.3 or later. If correct readings are not received, you should turn this option off.

Please note: Situations have been reported in which the CRC is not correctly calculated by the sensor. As a result, measurements can be rejected.

DIP3

With DIP3 the IP address can be set from static to automatic.

To set the IP address to automatic, the following steps must be followed:

1. Begin with DIP3 set off.
2. Switch DIP3 on. The settings are adjusted to automatically retrieve an IP address.
3. Switch DIP3 off. The JGA2060 will reboot with the new settings, and will retrieve an IP address from the DHCP server automatically.

DIP4

DIP4 indicates how the IP address is displayed on the LAN LED.

DIP switch setting	Description
0 (OFF)	Only the last three numbers of the IP address are displayed.
1 (ON)	The entire IP address is displayed.

See chapter Network settings for more information regarding the display of the IP address on the LAN LED.

SDI-12

SDI-12 is an asynchronous serial communication standard for intelligent sensors measuring environmental values. Commands are sent to the sensors, and data is being retrieved from the sensors through the serial data line.

Identification number

Because the serial data line is shared by all sensors, it is necessary to give each sensor an unique identification number. Only identification numbers 0 to 9 are supported by the JGA2060. If multiple sensors are being used, every sensor must have an unique identification number. Setting an identification number of a SDI-12 sensor is possible through the Boutronic Studio 3 from version 3.0a r19, see appendix A for a description.

Measurements

The JGA2060 does not know which measurements are available in a sensor in advance. The JGA2060 asks each used sensor how many measurements are available, and then it will retrieve all the measurement values. Because of this it is possible that a measurement value can occur multiple times. Consult the manual of the sensor for specifications of the measurement values.

Sensor terminal

It is possible to directly communicate with a SDI-12 sensor using a terminal in the Boutronic Studio. Consult the manual of the manufacturer of the sensor for a description about communication with the sensor.

Modbus TCP

It is possible to retrieve the data from the sensors used through Modbus TCP. To read the data from the sensors used, a connection must be made with the IP address of the JGA2060 through port 502.

SDI-12 sensors

The used sensors must each have a unique identification number (0 to 9), see chapter SDI-12 for more information. This identification number also is the unit ID of the sensor, with which the sensor can be accessed through Modbus TCP. A maximum of 100 measurement values can be retrieved per sensor. It is also possible to retrieve information about the sensor.

The table below shows a brief Modbus list of what can be retrieved per sensor.

Value	Modbus address	# registers	Type	Access	Data type
Type	1	1	Holding register	R/W	uint16
Interval	2	1	Holding register	R/W	uint16
Address	1	1	Input register	R	uint16
SDI-12 version	2	1	Input register	R	uint16
Fabrikant	3 … 10	8	Input register	R	ASCII
Model	11 … 16	6	Input register	R	ASCII
Versie	17 … 19	3	Input register	R	ASCII
Option	20 … 32	13	Input register	R	ASCII
Number of possible measurements	33	1	Input register	R	uint16
Measurement 1 … 100 status	100 … 199	1	Input register	R	uint16
Measurement 1 … 100 value (big endian)	1000 … 1198	2	Input register	R	float
Measurement 1 … 100 value (little endian)	2000 … 2198	2	Input register	R	float
Measurement 1 … 100 value (big endian & word swap)	3000 … 3198	2	Input register	R	float
Measurement 1 … 100 value (little endian & word swap)	4000 … 4198	2	Input register	R	Float
Measurement 1 … 100 age	200 … 299	1	Input register	R	uint16

Appendix C contains a complete list with all Modbus addresses.

Sensor information

It is possible to retrieve the following information from the sensor:

- Address of the sensor
- SDI-12 version
- Name of the manufacturer
- Model number of the sensor
- Version of the sensor
- Optional text of the sensor

Number of possible measurements

This indicates how many measurements are retrieved from the sensor.

Sensor settings

The following settings can be set per sensor:

1. Type
2. Interval

Sensor type

By setting the sensor type, the SDI-12 interface can read special sensors.

The following types can be set:

Type	Description	Remarks
Universal sensor	Universal sensor where the sensor values are directly read from the sensor and store to be read.	Selected by default

From Boutronic studio v3.0g you can change the settings

If you have a type of sensor that requires additional actions and it is not available in the SDI-12 interface, please contact Boutronic for the possibilities.

Interval

By setting the interval, you can determine the interval at which the values are retrieved from the sensor. By setting 0 seconds, the SDI-12 interface will retrieve the values as quickly as possible.

You can set an interval from 0 to 3600 sec.

Note: If the interval is set low, the interval time may be longer than the set time. This is because the sensor needs this time to retrieve all the values.

From Boutronic studio v3.0g you can change this setting.

Measurement status

Every measurement has a status, the table below shows the different statuses the measurements can have:

Value	Description
0	The status of the sensor is unknown.
1	The measurement is nog available.
2	The measurement has an error.
3	The result of the measurement is ready.

Measurement values

The values of the measurements are saved as floating points in two registers. The Modbus TCP protocol does not describe how to handle floating point numbers. Therefore it is possible that the Modbus client misinterprets the values. For this reason there are four different methods of retrieving the measurement values. In Appendix B is described how to find out which method is used.

Integer value

It is possible to represent the measured value, which is measured in comma numbers, in integer values (integers). The decimal points are first multiplied by the set integer multiplier (see JGA2060 addresses), then the entire value is sent.

Example:
The measured value is 20.1234. If this is sent without a multiplier, the integer value will be 20. If you set the multiplier to 100, the value will be 2012.34, then the integer value will be 2012. Setting the multiplier to 1000 results in a value of 20123.

This method allows you to see the decimal places.

Age of measurement

From v1.0c it is possible to request the age of a measured value. It indicates how many seconds ago the last measurement value was received. As soon as a new reading is received, the counter is set to 0 seconds.

JGA2060

The JGA2060 itself is also accessible via Modbus TCP with unit ID 247. The table below shows what information can be retrieved, and adjusted, through Modbus TCP.

Value	Modbus address	# registers	Type	Access	Data type
Output 1	1	1	Coil	R/W	bit
Output 2	2	1	Coil	R/W	bit
Error present [1]	100	1	Coil	R/W	bit
Input 1	1	1	Discrete input	R	bit
Input 2	2	1	Discrete input	R	bit
Error present	100	1	Discrete input	R	bit
Error 1 … 143	101 … 243	1	Discrete input	R	bit
Sensor 0 … 9 connected	300 … 309	1	Discrete input	R	bit
Uptime MSB	6000	1	Input register	R	uint16
Uptime LSB	6001	1	Input register	R	uint16
Software version large	6002	1	Input register	R	uint16
Software version small	6003	1	Input register	R	uint16
Software version letter	6004	1	Input register	R	ASCII
Number of errors	6005	1	Input register	R	uint16
Number of connected sensors	6006	1	Input register	R	uint16
Uptime (big endian)	6010	2	Input register	R	float
Uptime (little endian)	6012	2	Input register	R	float
Uptime (big endian & word swap)	6014	2	Input register	R	float
Uptime (little endian & word swap)	6016	2	Input register	R	float
Integer multiplier	5000	1	Holding register	R/W	Uint16

1. By writing a 1 to this register, the present errors will be reset.

Inputs

The status of the inputs of the JGA2060 can be read via Modbus TCP. The function of the input must be set to ‘Modbus controlled’.

Outputs

The status of the outputs can be read, and adjusted via Modbus TCP. The function of the output must be set to ‘Modbus controlled’.

Uptime

The uptime is retrievable via Modbus TCP in five ways, as an integer, or in four ways as a floating point number. The uptime counter will increment by 1 each second, and has a maximum value of 4,294,967,295 seconds (approximately 134 years).

Integer multiplier

With this value, the measured value is multiplied in order to be able to send it as an integer value.

Errors

Error messages will be created at certain events. If there are error messages present, and how many, can be retrieved through Modbus TCP. If errors are present, it is also present to reset these errors through Modbus TCP. The possible errors are summed in the table below.

Nr.	Name	Level	Description	Action
1	Eeprom R/W	Warning	Internal error.	Contact your supplier.
2	Eeprom protected	Warning	Internal error.	Contact your supplier.
3	First boot	Warning	Internal error.	Contact your supplier.
4	Configuration base	Warning	Internal error.	Contact your supplier.
5	Configuration settings	Warning	Internal error.	Contact your supplier.
6	Configuration checksum	Warning	An error has been detected checking the settings.	- Check the settings. - Adjust a random setting and check if the error persists. If so, contact your supplier.
7	IP conflict	Warning	Another device with the same IP address is detected in the network.	- Check your network. - Adjust the IP address of the JGA2060. - Contact your system administrator.
8	W5500 commando	Warning	Internal error.	Contact your supplier.
9	No MAC address	Warning	MAC address has not been set.	Contact your supplier.
10				
11	TCP Tx	Warning	Too much data to be sent via the TCP connection.	Contact your supplier.
12	TCP Rx	Warning	Too much data recieved via the TCP connection.	Contact your supplier.
141	Booted	Warning	The JGA2060 has booted.	If no power outage occurred, or if the device was not manually rebooted, contact your supplier.
142	Timer handler	Warning	Internal error.	Contact your supplier.
143	Testing error	Warning	Testing error, may not occur during normal usage.	Contact your supplier.

Network settings

The JGA2060 is equipped with a network connection, with which the JGA2060 can be connected to a ethernet network (computer network). Subsequently it becomes possible to connect to the JGA2060 with the Boutronic Studio.

(Boutronic Studio can be downloaded for free from our website: www.boutronic.nl.)

When a connection is being made, the network settings will be loaded automatically (DHCP), by default. It's also possible to manually set the network settings. The table below describes what settings can be adjusted.

Setting	Description
IP address	The address for the JGA2060 is on the network.
Subnet	Subnet for the network.
Gateway	The IP address for the gateway in the system.

Automatically

It is possible to set the JGA2060 to retrieve the network settings automatically at a DHCP server. Ask your system administrator of your network which has a DHCP server.

No DHCP server present

If no DHCP server is present in the network, the JGA2060 will give itself the standard IP address 169.254.1.XXX.
XXX = the last two digits of the MAC address (for example: 8C becomes 140 ((8*16)+12)).

Manually

The network setting can be set manually too. These new settings will become active after a reboot of the JGA2060. Be cautious not to use an IP address that is in use by another device in the same network, otherwise IP conflicts can occur, and both devices become inaccessible.

Retrieve IP address

In case it is not possible to retrieve the IP address of the JGA2060 by coupling it to a pc, it is possible to read the IP address from the LAN LED. If DIP4 is set to 0 (OFF), the LAN LED will only blink the last three digits of the IP address. With DIP4 set to 1 (ON), the IP address will be displayed entirely. The table below describes how to interpret the blinking of the LAN LED.

Signal	LAN-LED	Description
Start	3 sec on	The start of the display.
Pause	1 sec off	Separation between different signals.
Blink	0.25 sec on, and 0.25 sec off	Blinks number of times to display the number (0 = 10x).
Dot	1 sec blink fast	Indicates a dot in the IP address.

Below is described how the IP address 123.405.6.78 is displayed on the LAN LED with DIP4 on 1:

1. 3 seconds on.
2. 1.5 seconds off.
3. Blink **1**x.
4. 1.5 seconds off.
5. Blink **2**x.
6. 1.5 seconds off.
7. Blink **3**x.
8. 1.5 seconds off.
9. 1 second blink fast.
10. 1.5 seconds off.
11. Blink **4**x.
12. 1.5 seconds off.
13. Blink **10**x (because 0 is displayed as 10 blinks).
14. 1.5 seconds off.
15. Blink **5**x.
16. 1.5 seconds off.
17. 1 second blink fast.
18. 1.5 seconds off.
19. Blink **6**x (because the 100 and 10 digits are 0, they are skipped, including the following pauses).
20. 1.5 seconds off.
21. 1 second blink fast.
22. 1.5 seconds off.
23. Blink **7**x (because 100 digit is 0, it is skipped, including the following pause).
24. 1.5 seconds off.
25. Blink **8**x.
26. 1.5 seconds off.
27. Back to step 1.

When DIP4 is set to 0, only the digits after the last dot are displayed. In this case only step 1, and steps 22 to 27 are executed.

Control

The JGA2060 can be controlled via Boutronic Studio from version 3.0a r19.

Boutronic Studio

The following possibilities are available with Boutronic Studio 3:

- Read and adjust settings
- Display measurement values per sensor
- Direct communication with the SDI-12 sensors through the Sensor terminal
- Make a backup of current settings
- Set backed up settings
- Connect with the SDI-12 interface (JGA2060) through TCP/IP
- Connect with the SDI-12 interface (JGA2060) with a Boutronic USB dongle

Website

It is also possible to go to a website to retrieve the information from the JGA2060. To view the page, enter the IP address of JGA2060 in your browser.

The following information is accessible from the website:

- Type and version number
- Serial number of the JGA2060
- Name of the device (may be adjusted)
- MAC address of the JGA2060
- IP address of the JGA2060 (locally used)
- Uptime in seconds (at the moment of refreshing the page)
- Information regarding the connection with the Boutronic Studio (TCP)
    - Status (Connected or not connected)
    - IP address that is connected with the JGA2060 (if connected)
- Information about the Modbus TCP connection (3 possible connections)
    - Status (Connected or not connected)
    - IP address that is connected with the JGA2060 (if connected)
- Sensor information (per connected sensor, retrieved from the sensor)
    - Address
    - SDI-12 version
    - Manufacturer
    - Model number
    - Version number
    - Option
    - Number of measurements (determined by the JGA2060)

Technical specifications

The specifications of the JGA2060 are as follows:

General information

Parameter	Specification	Remark
Product Name	SDI-12 Interface	
Part number	JGA-2060	
Revision	A	
Manufacturer	Boutronic B.V.	
Application	Integration of SDI-12 sensor into Ethernet-base systems	
Configuration tool	Boutronic Studio 3	Available at www.boutronic.nl

Electrical specifications

Parameter	Min	Typical	Max	Unit	Remark
Voltage in	20	24	30	VDC	Provided with auto reset fuse
Current in	-	-	100	mA	
Voltage out	20	24	30	VDC	Equal to voltage in
Current out	-	-	100	mA	
SDI-12 Sensor supply	-	12	-	VDC	
SDI-12 Sensor supply current	-	-	200	mA	

Communication interfaces

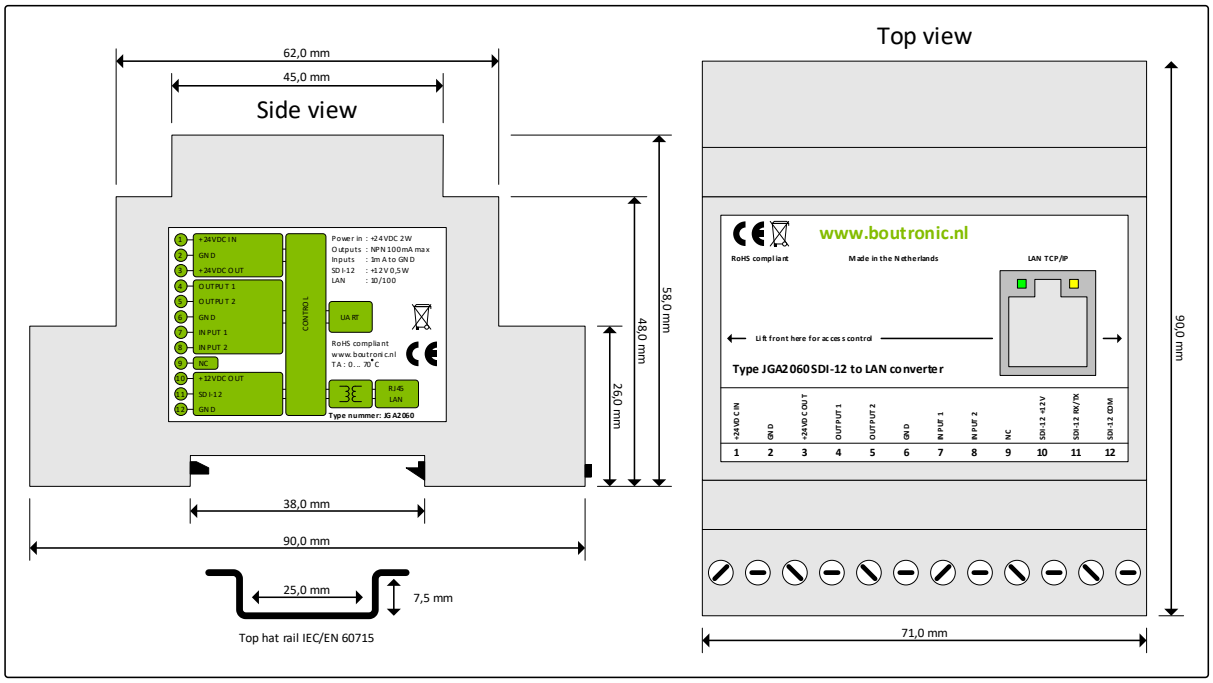
Parameter	Specification	Remark
SDI-12 Interface	1 port	
SDI-12 Baud rate	1200 baud	
Ethernet Interface	RJ45 Ethernet	
Industrial Protocol	Modbus TCP/IP REST API	
Configuration access	Boutronic Studio 3	
Network Connectivity	LAN	

Used ports

Protocol	Type	Port number
Boutronic Studio	TCP	8080
Search	UDP	5644
Modbus TCP	TCP	502
DCHP	UDP	67, 68
Website / REST API	TCP	80

Mechanical specifications

Parameter	Description	Remark
Measurements housing	90 x 71 x 58 mm	(LxWxH)
Mounting method	DIN-RAIL	
DIN standard	IEC/EN 60715 Top-Hat Rail	
Material	Polycarbonate	
Protection	IP20 UL94 VO	



Digital Inputs

Parameter	Specification	Remark
Number of Inputs	2	
Input type	Digital input, activated by GND	
Input current	1 mA	Overvoltage protection

Digital Outputs

Parameter	Specification	Remark
Number of outputs	2	
Output type	NPN open collector	
Max. output current	100 mA per output	Short-circuit and overvoltage protection

SDI-12 interface

Parameter	Specification	Remark
Voltage out	12 V	Provided with auto reset fuse
Current out	Max 200 mA	
Frame format	1 start, 7 data, 1 parity, and 1 stop bit(s)	According to the standard SDI-12 protocol
Speed	1200 Baud	

Environmental

Part	Min	Typical	Max	Unit	Remark
Operational temperature	-30	-	+60	°C	
Storage temperature	-40	-	+75	°C	

Parameter	Specification	Remark
Protection rating	IP10	
In-, and output connectors	Screw AWG 12 … 30	

Ordering

Part Number	Description
JGA2060	SDI-12 to Modbus TCP/IP interface

CE marking

The JGA2060 SDI-12 interface is designed according to the EMC/EMI guidelines and will therefore meet the EMC/EMI requirements. An official EMC test has not been performed by a notified body to confirm this.

Appendix A: setting the identification number

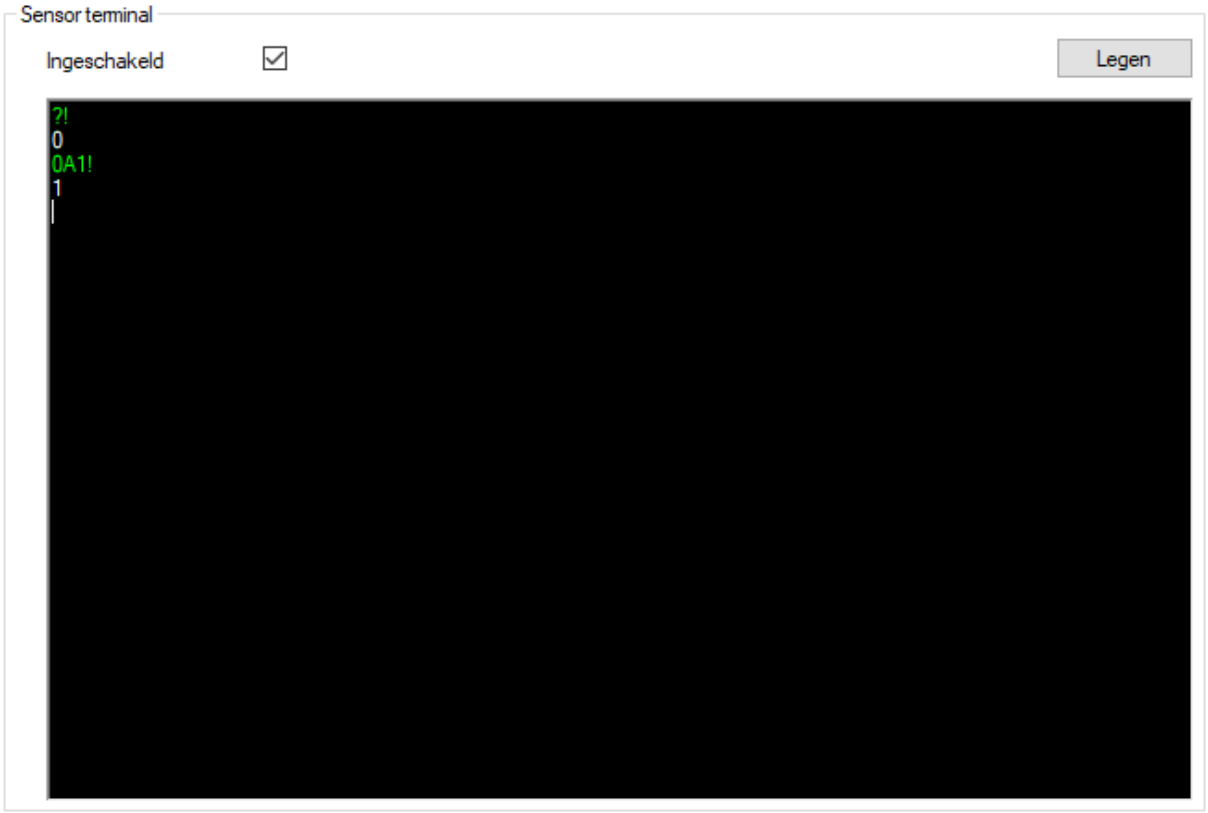
If multiple sensors are being attached to the SDI-12 bus, or if the sensor has an identification number that is not supported by the JGA2060, an identification number has to be set.

It is of crucial importance that every sensor is given an unique identification number. If this is not done right, it is possible that multiple sensors listen to the same identification number. If they consequently respond at the same time, the data will be corrupted, and misinterpreted by the JGA2060.

Below is described how to set an identification number of a sensor:

1. Power down the JGA2060.
2. Connect **only the to be adjusted sensor** tot he SDI-12 bus, disconnect all other sensors.
3. Power up the JGA2060.
4. Open the Boutronic Studio, navigate to the Sensor terminal tab, and check the box named Enabled.
5. Select the black field, so that a cursor blinks in the black field.
6. Enter the command to retrieve the set identification number from the sensor (“?!”).
7. The sensor will respond with its set identification number (factory default is usually “0”).
8. Enter the command to change the identification number (“aAb!”, a: current identification number, b: new identification number) [see image below].
9. If the sensor responds with its new identification number, the adjustment is completed.
10. Repeat the steps above in case more sensors have to be adjusted.

The image below shows an example. The commands are green, and the responses are white.



Appendix B: Floating point numbers via Modbus

Because nu standard has been defined within the Modbus specifications how to handle values greater than 16 bits, the JGA2060 can send floating point numbers in different methods.

The table below describes all possible methods. The letters A, B, C, and D represent bytes.

Method	Source	Result	Register 1	Register 2
Big endian	ABCD	ABCD	AB	CD
Little endian	ABCD	DCBA	DC	BA
Big endian & word swap	ABCD	CDAB	CD	AB
Little endian & word swap	ABCD	BADC	BA	DC

To check how your system handles floating point numbers, it is possible to retrieve the uptime in floating point format with the four different conversion methods. Modbus addresses 6010, 6012, 6014, and 6016 can be used to retrieve the uptime, using the four different conversion methods. With one of these conversion methods, the uptime counter will increment with 1 every second. The table below describes which conversion method correspond to which address, and which address range for the measurements are used with that conversion method.

Function code	Modbus address	Method	Start address measurements	Stop address measurements
Read input register	6010	Big endian	1000	1198
Read input register	6012	Little endian	2000	2198
Read input register	6014	Big endian & word swap	3000	3198
Read input register	6016	Little endian & word swap	4000	4198

Appendix C: Modbus list

The table below shows a complete Modbus list with all Modbus addresses for the JGA2060 (device ID 247).

Variable	Address	Size	Type	Access	Datatype	Min	Max	Remarks
Output 1	1	1	Coil	R/W	bit	0	1	R: status of output 1 W: (de)activate output 1
Output 2	2	1	Coil	R/W	bit	0	1	R: status of output 2 W: (de)activate output 2
Error reset	100	1	Coil	R/W	bit	0	1	R: errors active W: reset active errors
Input 1	1	1	Discrete input	R	bit	0	1	Read status of input 1
Input 2	2	1	Discrete input	R	bit	0	1	Read status of input 2
Error active	100	1	Discrete input	R	bit	0	1	0: No error 1: Error(s) active
Error 1: Eeprom R/W	101	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 2: Eeprom protected	102	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 3: First boot	103	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 4: 2nd base	104	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 5: Settings	105	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 6: Checksum	106	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 7: IP conflict	107	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 8: Command buffer	108	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 9: MAC-address	109	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 10: No MAC-address	110	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 11: Tx buffer full	111	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 12: Rx buffer full	112	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 13: Reserved	113	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 14: Reserved	114	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 15: Reserved	115	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 16: Reserved	116	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 17: Reserved	117	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 18: Reserved	118	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 19: Reserved	119	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 20: Reserved	120	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 21: Reserved	121	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 22: Reserved	122	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 23: Reserved	123	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 24: Reserved	124	1	Discrete input	R	bit	0	1	0: Not active 1: Active

Error 25: Reserved	125	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 26: Reserved	126	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 27: Reserved	127	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 28: Reserved	128	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 29: Reserved	129	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 30: Reserved	130	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 31: Reserved	131	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 32: Reserved	132	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 33: Reserved	133	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 34: Reserved	134	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 35: Reserved	135	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 36: Reserved	136	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 37: Reserved	137	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 38: Reserved	138	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 39: Reserved	139	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 40: Reserved	140	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 41: Reserved	141	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 42: Reserved	142	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 43: Reserved	143	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 44: Reserved	144	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 45: Reserved	145	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 46: Reserved	146	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 47: Reserved	147	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 48: Reserved	148	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 49: Reserved	149	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 50: Reserved	150	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 51: Reserved	151	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 52: Reserved	152	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 53: Reserved	153	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 54: Reserved	154	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 55: Reserved	155	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 56: Reserved	156	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 57: Reserved	157	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 58: Reserved	158	1	Discrete input	R	bit	0	1	0: Not active 1: Active

Error 59: Reserved	159	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 60: Reserved	160	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 61: Reserved	161	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 62: Reserved	162	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 63: Reserved	163	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 64: Reserved	164	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 65: Reserved	165	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 66: Reserved	166	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 67: Reserved	167	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 68: Reserved	168	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 69: Reserved	169	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 70: Reserved	170	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 71: Reserved	171	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 72: Reserved	172	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 73: Reserved	173	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 74: Reserved	174	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 75: Reserved	175	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 76: Reserved	176	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 77: Reserved	177	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 78: Reserved	178	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 79: Reserved	179	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 80: Reserved	180	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 81: Reserved	181	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 82: Reserved	182	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 83: Reserved	183	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 84: Reserved	184	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 85: Reserved	185	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 86: Reserved	186	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 87: Reserved	187	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 88: Reserved	188	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 89: Reserved	189	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 90: Reserved	190	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 91: Reserved	191	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 92: Reserved	192	1	Discrete input	R	bit	0	1	0: Not active 1: Active

Error 93: Reserved	193	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 94: Reserved	194	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 95: Reserved	195	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 96: Reserved	196	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 97: Reserved	197	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 98: Reserved	198	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 99: Reserved	199	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 100: Reserved	200	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 101: Reserved	201	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 102: Reserved	202	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 103: Reserved	203	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 104: Reserved	204	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 105: Reserved	205	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 106: Reserved	206	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 107: Reserved	207	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 108: Reserved	208	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 109: Reserved	209	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 110: Reserved	210	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 111: Reserved	211	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 112: Reserved	212	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 113: Reserved	213	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 114: Reserved	214	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 115: Reserved	215	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 116: Reserved	216	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 117: Reserved	217	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 118: Reserved	218	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 119: Reserved	219	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 120: Reserved	220	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 121: Reserved	221	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 122: Reserved	222	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 123: Reserved	223	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 124: Reserved	224	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 125: Reserved	225	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 126: Reserved	226	1	Discrete input	R	bit	0	1	0: Not active 1: Active

Error 127: Reserved	227	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 128: Reserved	228	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 129: Reserved	229	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 130: Reserved	230	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 131: Reserved	231	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 132: Reserved	232	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 133: Reserved	233	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 134: Reserved	234	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 135: Reserved	235	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 136: Reserved	236	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 137: Reserved	237	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 138: Reserved	238	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 139: Reserved	239	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 140: Reserved	240	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 141: Booted	241	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 142: Timer fault	242	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Error 143: Test error	243	1	Discrete input	R	bit	0	1	0: Not active 1: Active
Sensor 0 connected	300	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 1 connected	301	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 2 connected	302	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 3 connected	303	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 4 connected	304	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 5 connected	305	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 6 connected	306	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 7 connected	307	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 8 connected	308	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Sensor 9 connected	309	1	Discrete input	R	bit	0	1	0: Not connected 1: Connected
Modbus integer factor	5000	1	Holding register	R/W	uint16	1	1000	1, 10, 100 and 1000 are valid

Interface uptime MSB	6000	1	Input register	R	uint16	0	0xFFFF	Max is written in hexadecimal
Interface uptime LSB	6001	1	Input register	R	uint16	0	0xFFFF	
Software version major	6002	1	Input register	R	uint16	0	15	
Software version minor	6003	1	Input register	R	uint16	0	15	
Software version letter	6004	1	Input register	R	ASCII	'a'	'z'	
Error count	6005	1	Input register	R	uint16	0	0xFFFF	Max is written in hexadecimal
Sensor count	6018	1	Input register	R	uint16	0	9	
Interface uptime	6010	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Interface uptime	6012	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Interface uptime	6014	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Interface uptime	6016	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]

In onderstaande tabel is de complete Modbus lijst weergegeven met de Modbus adressen voor de aangesloten sensoren (device ID 0 t/m 9).

Variable	Address	Size	Type	Access	Datatype	Min	Max	Remarks
Sensor type	1	1	Holding register	R/W	uint16	0	0	0 = Universal sensor
Sensor interval	2	1	Holding register	R/W	uint16	0	3600	0 = as fast as possible 1 .. 3600 seconds
Sensor address	1	1	Input register	R	uint16	0	9	0 … 9 sensor address
Sensor SDI version	2	1	Input register	R	uint16	10	14	Version 1.0 … 1.4
Sensor vendor	3	8	Input register	R	ASCII	'a'	'z'	8 characters for vendor
Sensor model	11	6	Input register	R	ASCII	0	9	6 characters for model
Sensor version	17	3	Input register	R	ASCII			3 characters for version
Sensor option	20	13	Input register	R	ASCII			13 characters for optional information like serial number
Sensor # measurements	33	1	Input register	R	uint16	0	100	Number of measurements possible
Sensor value status 1	100	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 2	101	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 3	102	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 4	103	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 5	104	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 6	105	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 7	106	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 8	107	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 9	108	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 10	109	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 11	110	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 12	111	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring

Sensor value status 13	112	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 14	113	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 15	114	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 16	115	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 17	116	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 18	117	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 19	118	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 20	119	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 21	120	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 22	121	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 23	122	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 24	123	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 25	124	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 26	125	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 27	126	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 28	127	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 29	128	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 30	129	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 31	130	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 32	131	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 33	132	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 34	133	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 35	134	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 36	135	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 37	136	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 38	137	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 39	138	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 40	139	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 41	140	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 42	141	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 43	142	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 44	143	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 45	144	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 46	145	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring

Sensor value status 47	146	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 48	147	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 49	148	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 50	149	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 51	150	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 52	151	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 53	152	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 54	153	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 55	154	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 56	155	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 57	156	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 58	157	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 59	158	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 60	159	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 61	160	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 62	161	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 63	162	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 64	163	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 65	164	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 66	165	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 67	166	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 68	167	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 69	168	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 70	169	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 71	170	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 72	171	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 73	172	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 74	173	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 75	174	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 76	175	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 77	176	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 78	177	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 79	178	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 80	179	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring

Sensor value status 81	180	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 82	181	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 83	182	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 84	183	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 85	184	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 86	185	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 87	186	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 88	187	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 89	188	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 90	189	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 91	190	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 92	191	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 93	192	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 94	193	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 95	194	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 96	195	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 97	196	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 98	197	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 99	198	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value status 100	199	1	Input register	R	uint16	0	4	0 = Unknown, 1 = N/A, 2 = Error, 3 = OK, 4 = Busy measuring
Sensor value age 1	200	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 2	201	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 3	202	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 4	203	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 5	204	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 6	205	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 7	206	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 8	207	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 9	208	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 10	209	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 11	210	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 12	211	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 13	212	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 14	213	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older

Sensor value age 15	214	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 16	215	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 17	216	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 18	217	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 19	218	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 20	219	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 21	220	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 22	221	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 23	222	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 24	223	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 25	224	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 26	225	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 27	226	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 28	227	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 29	228	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 30	229	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 31	230	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 32	231	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 33	232	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 34	233	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 35	234	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 36	235	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 37	236	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 38	237	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 39	238	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 40	239	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 41	240	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 42	241	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 43	242	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 44	243	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 45	244	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 46	245	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 47	246	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 48	247	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older

Sensor value age 49	248	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 50	249	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 51	250	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 52	251	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 53	252	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 54	253	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 55	254	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 56	255	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 57	256	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 58	257	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 59	258	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 60	259	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 61	260	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 62	261	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 63	262	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 64	263	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 65	264	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 66	265	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 67	266	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 68	267	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 69	268	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 70	269	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 71	270	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 72	271	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 73	272	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 74	273	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 75	274	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 76	275	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 77	276	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 78	277	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 79	278	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 80	279	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 81	280	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 82	281	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older

Sensor value age 83	282	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 84	283	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 85	284	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 86	285	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 87	286	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 88	287	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 89	288	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 90	289	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 91	290	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 92	291	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 93	292	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 94	293	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 95	294	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 96	295	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 97	296	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 98	297	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 99	298	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older
Sensor value age 100	299	1	Input register	R	Uint16	0	655535	Sec since last measurement. 65535 can be older

Sensor value 1	1000	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 2	1002	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 3	1004	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 4	1006	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 5	1008	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 6	1010	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 7	1012	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 8	1014	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 9	1016	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 10	1018	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 11	1020	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 12	1022	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 13	1024	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 14	1026	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 15	1028	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 16	1030	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 17	1032	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 18	1034	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 19	1036	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 20	1038	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 21	1040	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 22	1042	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 23	1044	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 24	1046	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 25	1048	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 26	1050	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 27	1052	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 28	1054	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 29	1056	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 30	1058	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 31	1060	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 32	1062	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 33	1064	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 34	1066	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 35	1068	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 36	1070	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 37	1072	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 38	1074	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 39	1076	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 40	1078	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 41	1080	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 42	1082	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 43	1084	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 44	1086	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 45	1088	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]

Sensor value 46	1090	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 47	1092	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 48	1094	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 49	1096	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 50	1098	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 51	1100	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 52	1102	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 53	1104	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 54	1106	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 55	1108	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 56	1110	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 57	1112	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 58	1114	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 59	1116	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 60	1118	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 61	1120	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 62	1122	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 63	1124	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 64	1126	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 65	1128	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 66	1130	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 67	1132	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 68	1134	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 69	1136	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 70	1138	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 71	1140	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 72	1142	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 73	1144	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 74	1146	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 75	1148	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 76	1150	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 77	1152	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 78	1154	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 79	1156	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 80	1158	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 81	1160	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 82	1162	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 83	1164	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 84	1166	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 85	1168	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 86	1170	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 87	1172	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 88	1174	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 89	1176	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 90	1178	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]

Sensor value 91	1180	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 92	1182	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 93	1184	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 94	1186	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 95	1188	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 96	1190	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 97	1192	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 98	1194	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 99	1196	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 100	1198	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian [ABCD]
Sensor value 1	2000	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 2	2002	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 3	2004	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 4	2006	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 5	2008	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 6	2010	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 7	2012	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 8	2014	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 9	2016	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 10	2018	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 11	2020	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 12	2022	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 13	2024	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 14	2026	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 15	2028	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 16	2030	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 17	2032	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 18	2034	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 19	2036	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 20	2038	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 21	2040	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 22	2042	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 23	2044	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 24	2046	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 25	2048	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 26	2050	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 27	2052	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 28	2054	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 29	2056	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 30	2058	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 31	2060	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 32	2062	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 33	2064	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 34	2066	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]

Sensor value 35	2068	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 36	2070	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 37	2072	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 38	2074	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 39	2076	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 40	2078	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 41	2080	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 42	2082	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 43	2084	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 44	2086	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 45	2088	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 46	2090	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 47	2092	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 48	2094	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 49	2096	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 50	2098	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 51	2100	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 52	2102	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 53	2104	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 54	2106	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 55	2108	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 56	2110	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 57	2112	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 58	2114	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 59	2116	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 60	2118	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 61	2120	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 62	2122	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 63	2124	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 64	2126	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 65	2128	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 66	2130	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 67	2132	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 68	2134	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 69	2136	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 70	2138	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 71	2140	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 72	2142	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 73	2144	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 74	2146	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 75	2148	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 76	2150	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 77	2152	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 78	2154	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 79	2156	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]

Sensor value 80	2158	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 81	2160	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 82	2162	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 83	2164	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 84	2166	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 85	2168	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 86	2170	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 87	2172	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 88	2174	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 89	2176	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 90	2178	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 91	2180	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 92	2182	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 93	2184	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 94	2186	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 95	2188	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 96	2190	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 97	2192	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 98	2194	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 99	2196	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 100	2198	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian [DCBA]
Sensor value 1	3000	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 2	3002	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 3	3004	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 4	3006	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 5	3008	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 6	3010	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 7	3012	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 8	3014	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 9	3016	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 10	3018	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 11	3020	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 12	3022	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 13	3024	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 14	3026	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 15	3028	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 16	3030	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 17	3032	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 18	3034	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 19	3036	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 20	3038	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 21	3040	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 22	3042	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 23	3044	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]

Sensor value 24	3046	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 25	3048	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 26	3050	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 27	3052	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 28	3054	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 29	3056	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 30	3058	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 31	3060	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 32	3062	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 33	3064	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 34	3066	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 35	3068	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 36	3070	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 37	3072	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 38	3074	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 39	3076	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 40	3078	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 41	3080	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 42	3082	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 43	3084	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 44	3086	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 45	3088	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 46	3090	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 47	3092	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 48	3094	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 49	3096	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 50	3098	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 51	3100	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 52	3102	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 53	3104	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 54	3106	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 55	3108	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 56	3110	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 57	3112	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 58	3114	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 59	3116	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 60	3118	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 61	3120	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 62	3122	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 63	3124	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 64	3126	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 65	3128	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 66	3130	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 67	3132	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 68	3134	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]

Sensor value 69	3136	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 70	3138	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 71	3140	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 72	3142	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 73	3144	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 74	3146	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 75	3148	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 76	3150	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 77	3152	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 78	3154	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 79	3156	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 80	3158	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 81	3160	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 82	3162	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 83	3164	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 84	3166	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 85	3168	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 86	3170	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 87	3172	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 88	3174	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 89	3176	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 90	3178	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 91	3180	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 92	3182	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 93	3184	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 94	3186	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 95	3188	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 96	3190	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 97	3192	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 98	3194	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 99	3196	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 100	3198	2	Input register	R	float	-3,40E+38	3,40E+38	Big endian & word swap [CDAB]
Sensor value 1	4000	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 2	4002	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 3	4004	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 4	4006	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 5	4008	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 6	4010	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 7	4012	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 8	4014	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 9	4016	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 10	4018	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 11	4020	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 12	4022	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]

Sensor value 13	4024	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 14	4026	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 15	4028	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 16	4030	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 17	4032	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 18	4034	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 19	4036	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 20	4038	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 21	4040	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 22	4042	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 23	4044	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 24	4046	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 25	4048	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 26	4050	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 27	4052	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 28	4054	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 29	4056	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 30	4058	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 31	4060	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 32	4062	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 33	4064	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 34	4066	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 35	4068	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 36	4070	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 37	4072	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 38	4074	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 39	4076	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 40	4078	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 41	4080	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 42	4082	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 43	4084	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 44	4086	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 45	4088	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 46	4090	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 47	4092	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 48	4094	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 49	4096	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 50	4098	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 51	4100	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 52	4102	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 53	4104	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 54	4106	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 55	4108	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 56	4110	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 57	4112	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]

Sensor value 58	4114	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 59	4116	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 60	4118	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 61	4120	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 62	4122	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 63	4124	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 64	4126	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 65	4128	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 66	4130	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 67	4132	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 68	4134	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 69	4136	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 70	4138	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 71	4140	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 72	4142	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 73	4144	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 74	4146	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 75	4148	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 76	4150	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 77	4152	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 78	4154	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 79	4156	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 80	4158	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 81	4160	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 82	4162	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 83	4164	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 84	4166	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 85	4168	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 86	4170	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 87	4172	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 88	4174	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 89	4176	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 90	4178	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 91	4180	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 92	4182	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 93	4184	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 94	4186	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 95	4188	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 96	4190	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 97	4192	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 98	4194	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 99	4196	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]
Sensor value 100	4198	2	Input register	R	float	-3,40E+38	3,40E+38	Little endian & word swap [BADC]

Sensor value 1	5000	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 2	5002	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 3	5004	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 4	5006	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 5	5008	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 6	5010	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 7	5012	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 8	5014	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 9	5016	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 10	5018	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 11	5020	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 12	5022	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 13	5024	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 14	5026	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 15	5028	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 16	5030	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 17	5032	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 18	5034	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 19	5036	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 20	5038	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 21	5040	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 22	5042	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 23	5044	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 24	5046	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 25	5048	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 26	5050	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 27	5052	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 28	5054	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 29	5056	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 30	5058	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 31	5060	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 32	5062	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 33	5064	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 34	5066	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier

Sensor value 35	5068	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 36	5070	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 37	5072	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 38	5074	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 39	5076	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 40	5078	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 41	5080	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 42	5082	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 43	5084	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 44	5086	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 45	5088	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 46	5090	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 47	5092	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 48	5094	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 49	5096	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 50	5098	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 51	5100	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 52	5102	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 53	5104	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 54	5106	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 55	5108	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 56	5110	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 57	5112	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 58	5114	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 59	5116	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 60	5118	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 61	5120	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 62	5122	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 63	5124	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 64	5126	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 65	5128	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 66	5130	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 67	5132	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 68	5134	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier

Sensor value 69	5136	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 70	5138	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 71	5140	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 72	5142	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 73	5144	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 74	5146	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 75	5148	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 76	5150	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 77	5152	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 78	5154	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 79	5156	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 80	5158	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 81	5160	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 82	5162	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 83	5164	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 84	5166	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 85	5168	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 86	5170	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 87	5172	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 88	5174	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 89	5176	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 90	5178	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 91	5180	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 92	5182	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 93	5184	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 94	5186	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 95	5188	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 96	5190	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 97	5192	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 98	5194	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 99	5196	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier
Sensor value 100	5198	2	Input register	R	int32	-2147483648	2147483647	Float value is multiplied with the integer multiplier

Appendix D: REST API

Since version v1.0c, an API interface has been added to the SDI-12 interface.

Information can be retrieved from the SDI-12 Interface JGA2060 via the web interface.

By accessing the SDI-12 interface on its own IP address on port 80 (standard web port (http)), various information can be displayed.

The data is communicated d.m.v. JSON.

/api

This displays information about the product and the API.


```
{
  "name": "Boutronic SDI-12 Interface",
  "version": "v1",
  "api": "/api/v1",
  "description": "API main page",
  "main_page": "/api/v1"
}
```


/api/v1

This shows the possible paths.


```
{
  "device": "/api/v1/device",
  "sensor": "/api/v1/sensor",
  "comm": "/api/v1/comm"
}
```


/api/v1/device

This is the main information of the SDI-12 interface


```
{
  "device_type": "SDI-12 interface",
  "device_id": 17032,
  "device_nr": 1000,
  "serial_nr": 55885,
  "sw_version": "v1.0c",
  "name": "SDI12 Inter",
  "mac_address": "70-B3-D5-35-99-68",
  "ip_address": "192.168.15.52",
  "uptime": 350
}
```


Field	Description	Type
device_type	Description of the device type	String
device_id	Unique number to recognize the product type	Int
device_nr	The device number of the interface	Int
serial_nr	Serial number of the interface	Int
sw_version	Software version of the firmware	String
name	Name of the device	String
mac_address	The MAC-adres of the interface	String
ip_address	The IP-adres of the interface	String
uptime	The number of seconds that de device is up.	Int

/api/v1/comm

This is the information regarding communication.


```
{
  "studio": [
    {
      "status": "Connected",
      "ip": "192.168.15.155",
      "port": 8080
    }
  ],
  "modbus": [
    {
      "index": 0,
      "status": "Connected",
      "ip": "192.168.15.155"
    },
    {
      "index": 1,
      "status": "Not connected"
    },
    {
      "index": 2,
      "status": "Not connected"
    }
  ]
}
```


Field	Description	Type
studio	Information about the studio connection	Array of objects
⌞status	Status of the studio connection	String
⌞ip[1]	IP-adres of the connected device	String
modbus	Information about the Modbus connections	Array of objects
⌞index	Index of the connection	Int
⌞status	Status of the modbus connection	String
⌞ip[1]	IP-adres of the connected device	String

1. Is only displayed when connected.

/api/v1/sensor

This is the main information about the sensors.


```
{
  "count": 1,
  "sensors": [2]
}
```


Field	Description	Type
count	Number of connected sensors	Int
sensors	List of the connected sensor numbers.	Array of int

/api/v1/sensor/{NR}

This is the information for the indicated sensor with {NR}. (For example, /api/v1/sensor/2)


```
{
  "id": 2,
  "sdi_version": "v1.3",
  "vendor": "METER   ",
  "model": "TER12 ",
  "version": "102",
  "option": "T12-00006693",
  "values": [
    {
      "index": 0,
      "value": 1826.229,
      "age": 3
    },
    {
      "index": 1,
      "value": 19.899,
      "age": 3
    },
    {
      "index": 2,
      "value": 1,
      "age": 3
    }
  ]
}
```


Field	Description	Type
Id	Sensor number	Int
sdi_version	Version of the SDI-12 protocol supported by the sensor.	String
vendor	The vendor of the sensor	String
model	The sensor model	String
version	The version number of the sensor	String
option	Extra information from the sensor	String
values	List of measurements	Array of objects
∟index	Index of the measurement	Int
∟value	The value of the measurement	Float
∟age	The age of the measurement (in sec).	Int