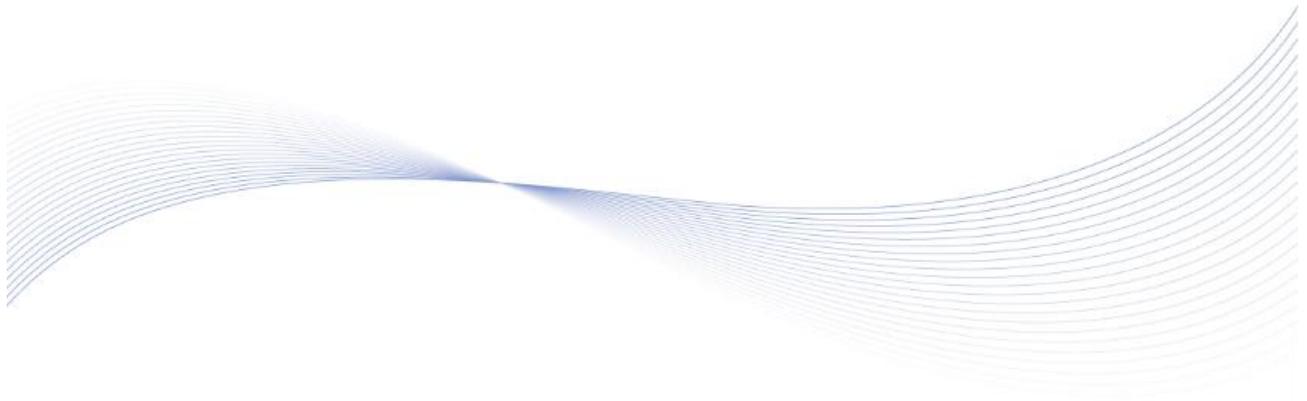

SmartGen

MAKING CONTROL SMARTER

HMC9100 SERIES

CONTROLLER

COMMUNICATION PROTOCOL



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Table 1 Software Version

Date	Version	Content
2025-02-10	V1.0	Original release.

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SmartGen

1 DESCRIPTION

This protocol describes the command format for reading and writing via the controller's RS485 half-duplex serial ports, as well as the definition of internal messages and data to facilitate third-party development and use.

The controller works as a slave module. It supports the Modbus-RTU protocol but does not support other protocols, such as Modbus-ASCII.

Communication address: 1~254 (Default: 1)

Baud rate: 9600/19200bps

Start bit: 1-bit

Data bit: 8-bit

Parity bit: no parity, odd parity and even parity (Default: no parity)

Stop bit: 1-bit or 2-bit (Default: 2-bit)

Function code supported: 03H. Function code 03H is used for reading the alarms, status and various kinds of electric parameters from the controller.

Data checking method: CRC16.

The register data inside the controller are packed as two bytes per register.

Communication timeout period: over 200ms.

Transmission distance: At a baud rate of 9600bps, the maximum transmission distance can reach up to 1,000 meters with 120Ω shielded twisted pair cable.

A maximum of 120 registers can be read per request.

It can support the communication of 32 networked modules.

RS485 cabling must use 120Ω shielded twisted pair cable, and one end of the shield should be grounded.

2 WIRING DIAGRAM

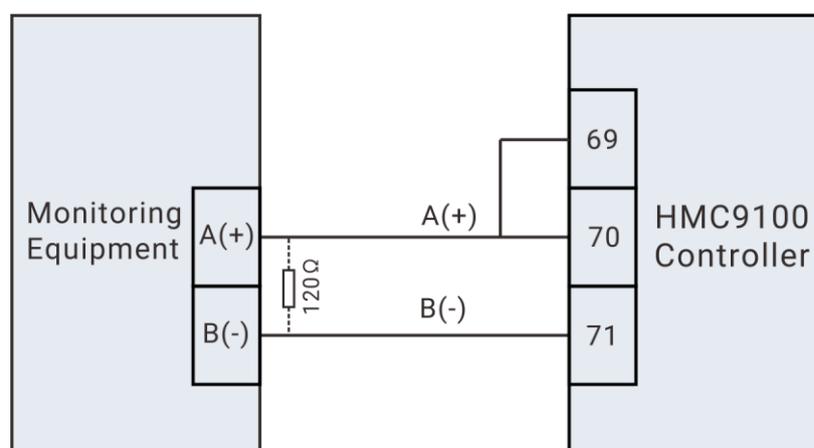


Fig. 1 Single Device Communication Wiring Diagram

NOTE 1: The 120-ohm termination resistor for master controller can be connected according to the site's requirement. The 120-ohm termination resistor for analog input module can be connected by shorting the Terminal 69 and Terminal 70.

NOTE 2: This is the RS485 wiring diagram.

3 ADDRESS AND DATA OF CONTROLLER INTERNAL REGISTERS

The slash mark (“/”) in the following tables means the address is reserved.

3.1 FUNCTION CODE 03H MAPPING ALARM AND STATUS COIL OF DATA FIELD

Table 2 Alarm and Status Coils of Data Field

Modbus Address	PLC Address	Item	Description
0.0	40001.0	Common Alarm Status	(0.0 means the Boolean value at Bit0 of address 0) The content listed below follows the same rule
0.1	40001.1	Common Shutdown Alarm	
0.2	40001.2	Common Unloading Alarm	
0.3	40001.3	Common Alarm	“0” means no common alarm occurs “1” means a common alarm occurs
0.4	40001.4	Common Warning Alarm	
0.5	40001.5	Gearbox Forward	
0.6	40001.6	Gearbox Backward	
0.7	40001.7	Gearbox in Neutral Position	
0.8	40001.8	System in Local Mode	
0.9	40001.9	System in Remote Mode	
0.10	40001.10	System in Auto Mode	
0.11	40001.11	Override Mode	
0.12	40001.12	Emergency Mode	
0.13	40001.13	Power Status	
0.14	40001.14	Engine Normal Running	
0.15	40001.15	Instrument Mode	
1	40002	/	
2.0	40003.0	Emergency Stop Alarm	
2.1	40003.1	Over Speed Shutdown	
2.2	40003.2	/	
2.3	40003.3	Loss of Speed Signal Shutdown	
2.4	40003.4	Exhaust Baffle Fault	
2.5	40003.5	Low Gearbox Oil Pressure	
2.6	40003.6	Louver Fault Shutdown	
2.7	40003.7	/	
2.8	40003.8	/	
2.9	40003.9	/	
2.10	40003.10	Remote Emergency Stop	
2.11	40003.11	ECU Shutdown	
2.12	40003.12	ECU Comm. Failure Shutdown	

Modbus Address	PLC Address	Item	Description
2.13	40003.13	High Water Temp. Shutdown Input	
2.14	40003.14	Low Oil Pressure Shutdown Input	
2.15	40003.15	/	
3	40004	/	
4.0	40005.0	Emergency Stop (RPU)	
4.1	40005.1	Input 1 Shutdown (RPU)	
4.2	40005.2	Input 2 Shutdown (RPU)	
4.3	40005.3	Input 3 Shutdown (RPU)	
4.4	40005.4	Input 4 Shutdown (RPU)	
4.5	40005.5	Input 5 Shutdown (RPU)	
4.6	40005.6	Over Speed Shutdown (RPU)	
4.7	40005.7	/	
4.8	40005.8	/	
4.9	40005.9	/	
4.10	40005.10	/	
4.11	40005.11	/	
4.12	40005.12	/	
4.13	40005.13	/	
4.14	40005.14	/	
4.15	40005.15	/	
5	40006	/	
6	40007	/	
7	40008	/	
8	40009	/	
9	40010	/	
10	40011	/	
11	40012	/	
12.0	40013	/	
12.1	40013.1	Sensor 1 High Shutdown	
12.2	40013.2	Sensor 1 Low Shutdown	
12.3	40013.3	Sensor 1 Open Shutdown	
12.4	40013.4	Sensor 2 High Shutdown	
12.5	40013.5	Sensor 2 Low Shutdown	
12.6	40013.6	Sensor 2 Open Shutdown	
12.7	40013.7	Sensor 3 High Shutdown	
12.8	40013.8	Sensor 3 Low Shutdown	
12.9	40013.9	Sensor 3 Open Shutdown	
12.10	40013.10	Sensor 4 High Shutdown	
12.11	40013.11	Sensor 4 Low Shutdown	
12.12	40013.12	Sensor 4 Open Shutdown	
12.13	40013.13	Sensor 5 High Shutdown	
12.14	40013.14	Sensor 5 Low Shutdown	
12.15	40013.15	Sensor 5 Open Shutdown	

Modbus Address	PLC Address	Item	Description
13.0	40014.0	Sensor 6 Low Shutdown	
13.1	40014.1	Sensor 6 Open Shutdown	
13.2	40014.2	Sensor 7 High Shutdown	
13.3	40014.3	Sensor 7 Low Shutdown	
13.4	40014.4	Sensor 7 Open Shutdown	
13.5	40014.5	Sensor 8 High Shutdown	
13.6	40014.6	Sensor 8 Low Shutdown	
13.7	40014.7	Sensor 8 Open Shutdown	
13.8	40014.8	Sensor 9 High Shutdown	
13.9	40014.9	Sensor 9 Low Shutdown	
13.10	40014.10	Sensor 9 Open Shutdown	
13.11	40014.11	Sensor 10 High Shutdown	
13.12	40014.12	Sensor 10 Low Shutdown	
13.13	40014.13	Sensor 10 Open Shutdown	
13.14	40014.14	/	
13.15	40014.15	/	
14.0	40015.0	Input 1 Shutdown	
14.1	40015.1	Input 2 Shutdown	
14.2	40015.2	Input 3 Shutdown	
14.3	40015.3	Input 4 Shutdown	
14.4	40015.4	Input 5 Shutdown	
14.5	40015.5	Input 6 Shutdown	
14.6	40015.6	Input 7 Shutdown	
14.7	40015.7	Input 8 Shutdown	
14.8	40015.8	Input 9 Shutdown	
14.9	40015.9	Input 10 Shutdown	
14.10	40015.10	Input 11 Shutdown	
14.11	40015.11	Input 12 Shutdown	
14.12	40015.12	Input 13 Shutdown	
14.13	40015.13	Input 14 Shutdown	
14.14	40015.14	Input 15 Shutdown	
14.15	40015.15	Input 16 Shutdown	
15.0	40016.0	Input 17 Shutdown	
15.1	40016.1	Input 18 Shutdown	
15.2	40016.2	/	
15.3	40016.3	/	
15.4	40016.4	/	
15.5	40016.5	/	
15.6	40016.6	/	
15.7	40016.7	Average Value Sensor 1 High Shutdown	
15.8	40016.8	Average Value Sensor 1 Low Shutdown	
15.9	40016.9	/	
15.10	40016.10	Average Value Sensor 2 High Shutdown	

Modbus Address	PLC Address	Item	Description
15.11	40016.11	Average Value Sensor 2 Low Shutdown	
15.12	40016.12	/	
15.13	40016.13	Average Value Sensor 3 High Shutdown	
15.14	40016.14	Average Value Sensor 3 Low Shutdown	
15.15	40016.15	/	
16.0	40017.0	AIN8 Sensor 1 High Shutdown (Module 1)	
16.1	40017.1	AIN8 Sensor 1 Low Shutdown (Module 1)	
16.2	40017.2	AIN8 Sensor 1 Open Shutdown (Module 1)	
16.3	40017.3	AIN8 Sensor 2 High Shutdown (Module 1)	
16.4	40017.4	AIN8 Sensor 2 Low Shutdown (Module 1)	
16.5	40017.5	AIN8 Sensor 2 Open Shutdown (Module 1)	
16.6	40017.6	AIN8 Sensor 3 High Shutdown (Module 1)	
16.7	40017.7	AIN8 Sensor 3 Low Shutdown (Module 1)	
16.8	40017.8	AIN8 Sensor 3 Open Shutdown (Module 1)	
16.9	40017.9	AIN8 Sensor 4 High Shutdown (Module 1)	
16.10	40017.10	AIN8 Sensor 4 Low Shutdown (Module 1)	
16.11	40017.11	AIN8 Sensor 4 Open Shutdown (Module 1)	
16.12	40017.12	AIN8 Sensor 5 High Shutdown (Module 1)	
16.13	40017.13	AIN8 Sensor 5 Low Shutdown (Module 1)	
16.14	40017.14	AIN8 Sensor 5 Open Shutdown (Module 1)	
16.15	40017.15	AIN8 Sensor 6 High Shutdown (Module 1)	
17.0	40018.0	AIN8 Sensor 6 Low Shutdown (Module 1)	
17.1	40018.1	AIN8 Sensor 6 Open Shutdown (Module 1)	
17.2	40018.2	AIN8 Sensor 7 High Shutdown (Module 1)	
17.3	40018.3	AIN8 Sensor 7 Low Shutdown (Module 1)	
17.4	40018.4	AIN8 Sensor 7 Open Shutdown (Module 1)	
17.5	40018.5	AIN8 Sensor 8 High Shutdown (Module 1)	
17.6	40018.6	AIN8 Sensor 8 Low Shutdown (Module 1)	
17.7	40018.7	AIN8 Sensor 8 Open Shutdown (Module 1)	
17.8	40018.8	AIN8 Sensor 1 High Shutdown (Module 2)	
17.9	40018.9	AIN8 Sensor 1 Low Shutdown (Module 2)	
17.10	40018.10	AIN8 Sensor 1 Open Shutdown (Module 2)	
17.11	40018.11	AIN8 Sensor 2 High Shutdown (Module 2)	
17.12	40018.12	AIN8 Sensor 2 Low Shutdown (Module 2)	
17.13	40018.13	AIN8 Sensor 2 Open Shutdown (Module 2)	
17.14	40018.14	AIN8 Sensor 3 High Shutdown (Module 2)	
17.15	40018.15	AIN8 Sensor 3 Low Shutdown (Module 2)	
18.0	40019.0	AIN8 Sensor 3 Open Shutdown (Module 2)	
18.1	40019.1	AIN8 Sensor 4 High Shutdown (Module 2)	
18.2	40019.2	AIN8 Sensor 4 Low Shutdown (Module 2)	
18.3	40019.3	AIN8 Sensor 4 Open Shutdown (Module 2)	
18.4	40019.4	AIN8 Sensor 5 High Shutdown (Module 2)	
18.5	40019.5	AIN8 Sensor 5 Low Shutdown (Module 2)	

Modbus Address	PLC Address	Item	Description
18.6	40019.6	AIN8 Sensor 5 Open Shutdown (Module 2)	
18.7	40019.7	AIN8 Sensor 6 High Shutdown (Module 2)	
18.8	40019.8	AIN8 Sensor 6 Low Shutdown (Module 2)	
18.9	40019.9	AIN8 Sensor 6 Open Shutdown (Module 2)	
18.10	40019.10	AIN8 Sensor 7 High Shutdown (Module 2)	
18.11	40019.11	AIN8 Sensor 7 Low Shutdown (Module 2)	
18.12	40019.12	AIN8 Sensor 7 Open Shutdown (Module 2)	
18.13	40019.13	AIN8 Sensor 8 High Shutdown (Module 2)	
18.14	40019.14	AIN8 Sensor 8 Low Shutdown (Module 2)	
18.15	40019.15	AIN8 Sensor 8 Open Shutdown (Module 2)	
19.0	40020.0	/	
19.1	40020.1	/	
19.2	40020.2	/	
19.3	40020.3	/	
19.4	40020.4	/	
19.5	40020.5	/	
19.6	40020.6	/	
19.7	40020.7	/	
19.8	40020.8	/	
19.9	40020.9	/	
19.10	40020.10	/	
19.11	40020.11	/	
19.12	40020.12	/	
19.13	40020.13	/	
19.14	40020.14	/	
19.15	40020.15	/	
20.0	40021.0	/	
20.1	40021.1	/	
20.2	40021.2	/	
20.3	40021.3	/	
20.4	40021.4	/	
20.5	40021.5	/	
20.6	40021.6	/	
20.7	40021.7	/	
20.8	40021.8	/	
20.9	40021.9	/	
20.10	40021.10	/	
20.11	40021.11	/	
20.12	40021.12	/	
20.13	40021.13	/	
20.14	40021.14	/	
20.15	40021.15	/	
21.0	40022.0	/	

Modbus Address	PLC Address	Item	Description
21.1	40022.1	/	
21.2	40022.2	/	
21.3	40022.3	/	
21.4	40022.4	/	
21.5	40022.5	/	
21.6	40022.6	/	
21.7	40022.7	/	
21.8	40022.8	/	
21.9	40022.9	/	
21.10	40022.10	/	
21.11	40022.11	/	
21.12	40022.12	/	
21.13	40022.13	/	
21.14	40022.14	/	
21.15	40022.15	/	
22.0	40023.0	Input 1 Shutdown (Expansion 1)	
22.1	40023.1	Input 2 Shutdown (Expansion 1)	
22.2	40023.2	Input 3 Shutdown (Expansion 1)	
22.3	40023.3	Input 4 Shutdown (Expansion 1)	
22.4	40023.4	Input 5 Shutdown (Expansion 1)	
22.5	40023.5	Input 6 Shutdown (Expansion 1)	
22.6	40023.6	Input 7 Shutdown (Expansion 1)	
22.7	40023.7	Input 8 Shutdown (Expansion 1)	
22.8	40023.8	Input 9 Shutdown (Expansion 1)	
22.9	40023.9	Input 10 Shutdown (Expansion 1)	
22.10	40023.10	Input 11 Shutdown (Expansion 1)	
22.11	40023.11	Input 12 Shutdown (Expansion 1)	
22.12	40023.12	Input 13 Shutdown (Expansion 1)	
22.13	40023.13	Input 14 Shutdown (Expansion 1)	
22.14	40023.14	Input 15 Shutdown (Expansion 1)	
22.15	40023.15	Input 16 Shutdown (Expansion 1)	
23	40024	Input Shutdown (Expansion 2)	
24.0	40025.0	PLC Shutdown 1	
24.1	40025.1	PLC Shutdown 2	
24.2	40025.2	PLC Shutdown 3	
24.3	40025.3	PLC Shutdown 4	
24.4	40025.4	PLC Shutdown 5	
24.5	40025.5	PLC Shutdown 6	
24.6	40025.6	PLC Shutdown 7	
24.7	40025.7	PLC Shutdown 8	
24.8	40025.8	PLC Shutdown 9	
24.9	40025.9	PLC Shutdown 10	
24.10	40025.10	PLC Shutdown 11	

Modbus Address	PLC Address	Item	Description
24.11	40025.11	PLC Shutdown 12	
24.12	40025.12	PLC Shutdown 13	
24.13	40025.13	PLC Shutdown 14	
24.14	40025.14	PLC Shutdown 15	
24.15	40025.15	PLC Shutdown 16	
25.0	40026.0	PLC Shutdown 17	
25.1	40026.1	PLC Shutdown 18	
25.2	40026.2	PLC Shutdown 19	
25.3	40026.3	PLC Shutdown 20	
25.4	40026.4	/	
25.5	40026.5	/	
25.6	40026.6	/	
25.7	40026.7	/	
25.8	40026.8	/	
25.9	40026.9	/	
25.10	40026.10	/	
25.11	40026.11	/	
25.12	40026.12	/	
25.13	40026.13	/	
25.14	40026.14	/	
25.15	40026.15	/	
26.0	40027.0	ECU Custom Sensor 1 High Shutdown	
26.1	40027.1	ECU Custom Sensor 1 Low Shutdown	
26.2	40027.2	/	
26.3	40027.3	ECU Custom Sensor 2 High Shutdown	
26.4	40027.4	ECU Custom Sensor 2 Low Shutdown	
26.5	40027.5	/	
26.6	40027.6	ECU Custom Sensor 3 High Shutdown	
26.7	40027.7	ECU Custom Sensor 3 Low Shutdown	
26.8	40027.8	/	
26.9	40027.9	ECU Custom Sensor 4 High Shutdown	
26.10	40027.10	ECU Custom Sensor 4 Low Shutdown	
26.11	40027.11	/	
26.12	40027.12	ECU Custom Sensor 5 High Shutdown	
26.13	40027.13	ECU Custom Sensor 5 Low Shutdown	
26.14	40027.14	/	
26.15	40027.15	ECU Custom Sensor 6 High Shutdown	
27.0	40028.0	ECU Custom Sensor 6 Low Shutdown	
27.1	40028.1	/	
27.2	40028.2	ECU Custom Sensor 7 High Shutdown	
27.3	40028.3	ECU Custom Sensor 7 Low Shutdown	
27.4	40028.4	/	
27.5	40028.5	ECU Custom Sensor 8 High Shutdown	

Modbus Address	PLC Address	Item	Description
27.6	40028.6	ECU Custom Sensor 8 Low Shutdown	
27.7	40028.7	/	
27.8	40028.8	ECU Custom Sensor 9 High Shutdown	
27.9	40028.9	ECU Custom Sensor 9 Low Shutdown	
27.10	40028.10	/	
27.11	40028.11	ECU Custom Sensor 10 High Shutdown	
27.12	40028.12	ECU Custom Sensor 10 Low Shutdown	
27.13	40028.13	/	
27.14	40028.14	ECU Custom Sensor 11 High Shutdown	
27.15	40028.15	ECU Custom Sensor 11 Low Shutdown	
28.0	40029.0	/	
28.1	40029.1	ECU Custom Sensor 12 High Shutdown	
28.2	40029.2	ECU Custom Sensor 12 Low Shutdown	
28.3	40029.3	/	
28.4	40029.4	ECU Custom Sensor 13 High Shutdown	
28.5	40029.5	ECU Custom Sensor 13 Low Shutdown	
28.6	40029.6	/	
28.7	40029.7	ECU Custom Sensor 14 High Shutdown	
28.8	40029.8	ECU Custom Sensor 14 Low Shutdown	
28.9	40029.9	/	
28.10	40029.10	ECU Custom Sensor 15 High Shutdown	
28.11	40029.11	ECU Custom Sensor 15 Low Shutdown	
28.12	40029.12	/	
28.13	40029.13	ECU Custom Sensor 16 High Shutdown	
28.14	40029.14	ECU Custom Sensor 16 Low Shutdown	
28.15	40029.15	/	
29.0	40030.0	ECU Custom Sensor 17 High Shutdown	
29.1	40030.1	ECU Custom Sensor 17 Low Shutdown	
29.2	40030.2	/	
29.3	40030.3	ECU Custom Sensor 18 High Shutdown	
29.4	40030.4	ECU Custom Sensor 18 Low Shutdown	
29.5	40030.5	/	
29.6	40030.6	ECU Custom Sensor 19 High Shutdown	
29.7	40030.7	ECU Custom Sensor 19 Low Shutdown	
29.8	40030.8	/	
29.9	40030.9	ECU Custom Sensor 20 High Shutdown	
29.10	40030.10	ECU Custom Sensor 20 Low Shutdown	
29.11	40030.11	/	
29.12	40030.12	/	
29.13	40030.13	/	
29.14	40030.14	/	
29.15	40030.15	/	
30.0	40031.0	AIN23 Sensor 1 High Shutdown	

Modbus Address	PLC Address	Item	Description
30.1	40031.1	AIN23 Sensor 1 Low Shutdown	
30.2	40031.2	AIN23 Sensor 1 Open Shutdown	
30.3	40031.3	AIN23 Sensor 2 High Shutdown	
30.4	40031.4	AIN23 Sensor 2 Low Shutdown	
30.5	40031.5	AIN23 Sensor 2 Open Shutdown	
30.6	40031.6	AIN23 Sensor 3 High Shutdown	
30.7	40031.7	AIN23 Sensor 3 Low Shutdown	
30.8	40031.8	AIN23 Sensor 3 Open Shutdown	
30.9	40031.9	AIN23 Sensor 4 High Shutdown	
30.10	40031.10	AIN23 Sensor 4 Low Shutdown	
30.11	40031.11	AIN23 Sensor 4 Open Shutdown	
30.12	40031.12	AIN23 Sensor 5 High Shutdown	
30.13	40031.13	AIN23 Sensor 5 Low Shutdown	
30.14	40031.14	AIN23 Sensor 5 Open Shutdown	
30.15	40031.15	AIN23 Sensor 6 High Shutdown	
31.0	40032.0	AIN23 Sensor 6 Low Shutdown	
31.1	40032.1	AIN23 Sensor 6 Open Shutdown	
31.2	40032.2	AIN23 Sensor 7 High Shutdown	
31.3	40032.3	AIN23 Sensor 7 Low Shutdown	
31.4	40032.4	AIN23 Sensor 7 Open Shutdown	
31.5	40032.5	AIN23 Sensor 8 High Shutdown	
31.6	40032.6	AIN23 Sensor 8 Low Shutdown	
31.7	40032.7	AIN23 Sensor 8 Open Shutdown	
31.8	40032.8	AIN23 Sensor 9 High Shutdown	
31.9	40032.9	AIN23 Sensor 9 Low Shutdown	
31.10	40032.10	AIN23 Sensor 9 Open Shutdown	
31.11	40032.11	AIN23 Sensor 10 High Shutdown	
31.12	40032.12	AIN23 Sensor 10 Low Shutdown	
31.13	40032.13	AIN23 Sensor 10 Open Shutdown	
31.14	40032.14	AIN23 Sensor 11 High Shutdown	
31.15	40032.15	AIN23 Sensor 11 Low Shutdown	
32.0	40033.0	AIN23 Sensor 11 Open Shutdown	
32.1	40033.1	AIN23 Sensor 12 High Shutdown	
32.2	40033.2	AIN23 Sensor 12 Low Shutdown	
32.3	40033.3	AIN23 Sensor 12 Open Shutdown	
32.4	40033.4	AIN23 Sensor 13 High Shutdown	
32.5	40033.5	AIN23 Sensor 13 Low Shutdown	
32.6	40033.6	AIN23 Sensor 13 Open Shutdown	
32.7	40033.7	AIN23 Sensor 14 High Shutdown	
32.8	40033.8	AIN23 Sensor 14 Low Shutdown	
32.9	40033.9	AIN23 Sensor 14 Open Shutdown	
32.10	40033.10	AIN23 Sensor 15 High Shutdown	
32.11	40033.11	AIN23 Sensor 15 Low Shutdown	

Modbus Address	PLC Address	Item	Description
32.12	40033.12	AIN23 Sensor 15 Open Shutdown	
32.13	40033.13	AIN23 Sensor 16 High Shutdown	
32.14	40033.14	AIN23 Sensor 16 Low Shutdown	
32.15	40033.15	AIN23 Sensor 16 Open Shutdown	
33.0	40034.0	AIN23 Sensor 17 High Shutdown	
33.1	40034.1	AIN23 Sensor 17 Low Shutdown	
33.2	40034.2	AIN23 Sensor 17 Open Shutdown	
33.3	40034.3	AIN23 Sensor 18 High Shutdown	
33.4	40034.4	AIN23 Sensor 18 Low Shutdown	
33.5	40034.5	AIN23 Sensor 18 Open Shutdown	
33.6	40034.6	AIN23 Sensor 19 High Shutdown	
33.7	40034.7	AIN23 Sensor 19 Low Shutdown	
33.8	40034.8	AIN23 Sensor 19 Open Shutdown	
33.9	40034.9	AIN23 Sensor 20 High Shutdown	
33.10	40034.10	AIN23 Sensor 20 Low Shutdown	
33.11	40034.11	AIN23 Sensor 20 Open Shutdown	
33.12	40034.12	AIN23 Sensor 21 High Shutdown	
33.13	40034.13	AIN23 Sensor 21 Low Shutdown	
33.14	40034.14	AIN23 Sensor 21 Open Shutdown	
33.15	40034.15	AIN23 Sensor 22 High Shutdown	
34.0	40035.0	AIN23 Sensor 22 Low Shutdown	
34.1	40035.1	AIN23 Sensor 22 Open Shutdown	
34.2	40035.2	AIN23 Sensor 23 High Shutdown	
34.3	40035.3	AIN23 Sensor 23 Low Shutdown	
34.4	40035.4	AIN23 Sensor 23 Open Shutdown	
34.5	40035.5	/	
34.6	40035.6	/	
34.7	40035.7	/	
34.8	40035.8	/	
34.9	40035.9	/	
34.10	40035.10	/	
34.11	40035.11	/	
34.12	40035.12	/	
34.13	40035.13	/	
34.14	40035.14	/	
34.15	40035.15	/	
35.0	40036.0	AIN23 Sensor 1 High Shutdown (Module 2)	
35.1	40036.1	AIN23 Sensor 1 Low Shutdown (Module 2)	
35.2	40036.2	AIN23 Sensor 1 Open Shutdown (Module 2)	
35.3	40036.3	AIN23 Sensor 2 High Shutdown (Module 2)	
35.4	40036.4	AIN23 Sensor 2 Low Shutdown (Module 2)	
35.5	40036.5	AIN23 Sensor 2 Open Shutdown (Module 2)	
35.6	40036.6	AIN23 Sensor 3 High Shutdown (Module 2)	

Modbus Address	PLC Address	Item	Description
35.7	40036.7	AIN23 Sensor 3 Low Shutdown (Module 2)	
35.8	40036.8	AIN23 Sensor 3 Open Shutdown (Module 2)	
35.9	40036.9	AIN23 Sensor 4 High Shutdown (Module 2)	
35.10	40036.10	AIN23 Sensor 4 Low Shutdown (Module 2)	
35.11	40036.11	AIN23 Sensor 4 Open Shutdown (Module 2)	
35.12	40036.12	AIN23 Sensor 5 High Shutdown (Module 2)	
35.13	40036.13	AIN23 Sensor 5 Low Shutdown (Module 2)	
35.14	40036.14	AIN23 Sensor 5 Open Shutdown (Module 2)	
35.15	40036.15	AIN23 Sensor 6 High Shutdown (Module 2)	
36.0	40037.0	AIN23 Sensor 6 Low Shutdown (Module 2)	
36.1	40037.1	AIN23 Sensor 6 Open Shutdown (Module 2)	
36.2	40037.2	AIN23 Sensor 7 High Shutdown (Module 2)	
36.3	40037.3	AIN23 Sensor 7 Low Shutdown (Module 2)	
36.4	40037.4	AIN23 Sensor 7 Open Shutdown (Module 2)	
36.5	40037.5	AIN23 Sensor 8 High Shutdown (Module 2)	
36.6	40037.6	AIN23 Sensor 8 Low Shutdown (Module 2)	
36.7	40037.7	AIN23 Sensor 8 Open Shutdown (Module 2)	
36.8	40037.8	AIN23 Sensor 9 High Shutdown (Module 2)	
36.9	40037.9	AIN23 Sensor 9 Low Shutdown (Module 2)	
36.10	40037.10	AIN23 Sensor 9 Open Shutdown (Module 2)	
36.11	40037.11	AIN23 Sensor 10 High Shutdown (Module 2)	
36.12	40037.12	AIN23 Sensor 10 Low Shutdown (Module 2)	
36.13	40037.13	AIN23 Sensor 10 Open Shutdown (Module 2)	
36.14	40037.14	AIN23 Sensor 11 High Shutdown (Module 2)	
36.15	40037.15	AIN23 Sensor 11 Low Shutdown (Module 2)	
37.0	40038.0	AIN23 Sensor 11 Open Shutdown (Module 2)	
37.1	40038.1	AIN23 Sensor 12 High Shutdown (Module 2)	
37.2	40038.2	AIN23 Sensor 12 Low Shutdown (Module 2)	
37.3	40038.3	AIN23 Sensor 12 Open Shutdown (Module 2)	
37.4	40038.4	AIN23 Sensor 13 High Shutdown (Module 2)	
37.5	40038.5	AIN23 Sensor 13 Low Shutdown (Module 2)	
37.6	40038.6	AIN23 Sensor 13 Open Shutdown (Module 2)	
37.7	40038.7	AIN23 Sensor 14 High Shutdown (Module 2)	
37.8	40038.8	AIN23 Sensor 14 Low Shutdown (Module 2)	
37.9	40038.9	AIN23 Sensor 14 Open Shutdown (Module 2)	
37.10	40038.10	AIN23 Sensor 15 High Shutdown (Module 2)	
37.11	40038.11	AIN23 Sensor 15 Low Shutdown (Module 2)	
37.12	40038.12	AIN23 Sensor 15 Open Shutdown (Module 2)	
37.13	40038.13	AIN23 Sensor 16 High Shutdown (Module 2)	
37.14	40038.14	AIN23 Sensor 16 Low Shutdown (Module 2)	
37.15	40038.15	AIN23 Sensor 16 Open Shutdown (Module 2)	
38.0	40039.0	AIN23 Sensor 17 High Shutdown (Module 2)	
38.1	40039.1	AIN23 Sensor 17 Low Shutdown (Module 2)	

Modbus Address	PLC Address	Item	Description
38.2	40039.2	AIN23 Sensor 17 Open Shutdown (Module 2)	
38.3	40039.3	AIN23 Sensor 18 High Shutdown (Module 2)	
38.4	40039.4	AIN23 Sensor 18 Low Shutdown (Module 2)	
38.5	40039.5	AIN23 Sensor 18 Open Shutdown (Module 2)	
38.6	40039.6	AIN23 Sensor 19 High Shutdown (Module 2)	
38.7	40039.7	AIN23 Sensor 19 Low Shutdown (Module 2)	
38.8	40039.8	AIN23 Sensor 19 Open Shutdown (Module 2)	
38.9	40039.9	AIN23 Sensor 20 High Shutdown (Module 2)	
38.10	40039.10	AIN23 Sensor 20 Low Shutdown (Module 2)	
38.11	40039.11	AIN23 Sensor 20 Open Shutdown (Module 2)	
38.12	40039.12	AIN23 Sensor 21 High Shutdown (Module 2)	
38.13	40039.13	AIN23 Sensor 21 Low Shutdown (Module 2)	
38.14	40039.14	AIN23 Sensor 21 Open Shutdown (Module 2)	
38.15	40039.15	AIN23 Sensor 22 High Shutdown (Module 2)	
39.0	40040.0	AIN23 Sensor 22 Low Shutdown (Module 2)	
39.1	40040.1	AIN23 Sensor 22 Open Shutdown (Module 2)	
39.2	40040.2	AIN23 Sensor 23 High Shutdown (Module 2)	
39.3	40040.3	AIN23 Sensor 23 Low Shutdown (Module 2)	
39.4	40040.4	AIN23 Sensor 23 Open Shutdown (Module 2)	
39.5	40040.5	/	
39.6	40040.6	/	
39.7	40040.7	/	
39.8	40040.8	/	
39.9	40040.9	/	
39.10	40040.10	/	
39.11	40040.11	/	
39.12	40040.12	/	
39.13	40040.13	/	
39.14	40040.14	/	
39.15	40040.15	/	
40.0	40041.0	AIN16-M01 Sensor 1 High Shutdown	
40.1	40041.1	AIN16-M01 Sensor 1 Low Shutdown	
40.2	40041.2	AIN16-M01 Sensor 1 Open Shutdown	
40.3	40041.3	AIN16-M01 Sensor 2 High Shutdown	
40.4	40041.4	AIN16-M01 Sensor 2 Low Shutdown	
40.5	40041.5	AIN16-M01 Sensor 2 Open Shutdown	
40.6	40041.6	AIN16-M01 Sensor 3 High Shutdown	
40.7	40041.7	AIN16-M01 Sensor 3 Low Shutdown	
40.8	40041.8	AIN16-M01 Sensor 3 Open Shutdown	
40.9	40041.9	AIN16-M01 Sensor 4 High Shutdown	
40.10	40041.10	AIN16-M01 Sensor 4 Low Shutdown	
40.11	40041.11	AIN16-M01 Sensor 4 Open Shutdown	
40.12	40041.12	AIN16-M01 Sensor 5 High Shutdown	

Modbus Address	PLC Address	Item	Description
40.13	40041.13	AIN16-M01 Sensor 5 Low Shutdown	
40.14	40041.14	AIN16-M01 Sensor 5 Open Shutdown	
40.15	40041.15	AIN16-M01 Sensor 6 High Shutdown	
41.0	40042.0	AIN16-M01 Sensor 6 Low Shutdown	
41.1	40042.1	AIN16-M01 Sensor 6 Open Shutdown	
41.2	40042.2	AIN16-M01 Sensor 7 High Shutdown	
41.3	40042.3	AIN16-M01 Sensor 7 Low Shutdown	
41.4	40042.4	AIN16-M01 Sensor 7 Open Shutdown	
41.5	40042.5	AIN16-M01 Sensor 8 High Shutdown	
41.6	40042.6	AIN16-M01 Sensor 8 Low Shutdown	
41.7	40042.7	AIN16-M01 Sensor 8 Open Shutdown	
41.8	40042.8	AIN16-M01 Sensor 9 High Shutdown	
41.9	40042.9	AIN16-M01 Sensor 9 Low Shutdown	
41.10	40042.10	AIN16-M01 Sensor 9 Open Shutdown	
41.11	40042.11	AIN16-M01 Sensor 10 High Shutdown	
41.12	40042.12	AIN16-M01 Sensor 10 Low Shutdown	
41.13	40042.13	AIN16-M01 Sensor 10 Open Shutdown	
41.14	40042.14	AIN16-M01 Sensor 11 High Shutdown	
41.15	40042.15	AIN16-M01 Sensor 11 Low Shutdown	
42.0	40043.0	AIN16-M01 Sensor 11 Open Shutdown	
42.1	40043.1	AIN16-M01 Sensor 12 High Shutdown	
42.2	40043.2	AIN16-M01 Sensor 12 Low Shutdown	
42.3	40043.3	AIN16-M01 Sensor 12 Open Shutdown	
42.4	40043.4	/	
42.5	40043.5	Difference Sensor 1 High Shutdown	
42.6	40043.6	Difference Sensor 1 Low Shutdown	
42.7	40043.7	/	
42.8	40043.8	Difference Sensor 2 High Shutdown	
42.9	40043.9	Difference Sensor 2 Low Shutdown	
42.10	40043.10	/	
42.11	40043.11	Difference Sensor 3 High Shutdown	
42.12	40043.12	Difference Sensor 3 Low Shutdown	
42.13	40043.13	/	
42.14	40043.14	Difference Sensor 4 High Shutdown	
42.15	40043.15	Difference Sensor 4 Low Shutdown	
43	40044	/	
44	40045	/	
45	40046	/	
46	40047	/	
47	40048	/	
48	40049	/	
49	40050	/	
50	40051	/	

Modbus Address	PLC Address	Item	Description
51	40052	/	
52.0	40053.0	/	
52.1	40053.1	Over Speed Unloading	
52.2	40053.2	/	
52.3	40053.3	Loss of Speed Signal Unloading Alarm	
52.4	40053.4	/	
52.5	40053.5	/	
52.6	40053.6	/	
52.7	40053.7	/	
52.8	40053.8	/	
52.9	40053.9	/	
52.10	40053.10	/	
52.11	40053.11	/	
52.12	40053.12	/	
52.13	40053.13	/	
52.14	40053.14	/	
52.15	40053.15	/	
53	40054	/	
54	40055	/	
55	40056	/	
56	40057	/	
57	40058	/	
58	40059	/	
59	40060	/	
60	40061	/	
61	40062	/	
62.0	40063.0	Sensor 1 High Unloading	
62.1	40063.1	Sensor 1 Low Unloading	
62.2	40063.2	Sensor 1 Open Unloading	
62.3	40063.3	Sensor 2 High Unloading	
62.4	40063.4	Sensor 2 Low Unloading	
62.5	40063.5	Sensor 2 Open Unloading	
62.6	40063.6	Sensor 3 High Unloading	
62.7	40063.7	Sensor 3 Low Unloading	
62.8	40063.8	Sensor 3 Open Unloading	
62.9	40063.9	Sensor 4 High Unloading	
62.10	40063.10	Sensor 4 Low Unloading	
62.11	40063.11	Sensor 4 Open Unloading	
62.12	40063.12	Sensor 5 High Unloading	
62.13	40063.13	Sensor 5 Low Unloading	
62.14	40063.14	Sensor 5 Open Unloading	
62.15	40063.15	Sensor 6 High Unloading	
63.0	40064.0	Sensor 6 Low Unloading	

Modbus Address	PLC Address	Item	Description
63.1	40064.1	Sensor 6 Open Unloading	
63.2	40064.2	Sensor 7 High Unloading	
63.3	40064.3	Sensor 7 Low Unloading	
63.4	40064.4	Sensor 7 Open Unloading	
63.5	40064.5	Sensor 8 High Unloading	
63.6	40064.6	Sensor 8 Low Unloading	
63.7	40064.7	Sensor 8 Open Unloading	
63.8	40064.8	Sensor 9 High Unloading	
63.9	40064.9	Sensor 9 Low Unloading	
63.10	40064.10	Sensor 9 Open Unloading	
63.11	40064.11	Sensor 10 High Unloading	
63.12	40064.12	Sensor 10 Low Unloading	
63.13	40064.13	Sensor 10 Open Unloading	
63.14	40064.14	/	
63.15	40064.15	/	
64.0	40065.0	Input 1 Unloading	
64.1	40065.1	Input 2 Unloading	
64.2	40065.2	Input 3 Unloading	
64.3	40065.3	Input 4 Unloading	
64.4	40065.4	Input 5 Unloading	
64.5	40065.5	Input 6 Unloading	
64.6	40065.6	Input 7 Unloading	
64.7	40065.7	Input 8 Unloading	
64.8	40065.8	Input 9 Unloading	
64.9	40065.9	Input 10 Unloading	
64.10	40065.10	Input 11 Unloading	
64.11	40065.11	Input 12 Unloading	
64.12	40065.12	Input 13 Unloading	
64.13	40065.13	Input 14 Unloading	
64.14	40065.14	Input 15 Unloading	
64.15	40065.15	Input 16 Unloading	
65.0	40066.0	Input 17 Unloading	
65.1	40066.1	Input 18 Unloading	
65.2	40066.2	/	
65.3	40066.3	/	
65.4	40066.4	/	
65.5	40066.5	/	
65.6	40066.6	/	
65.7	40066.7	Average Value Sensor 1 High	
65.8	40066.8	Average Value Sensor 1 Low	
65.9	40066.9	/	
65.10	40066.10	Average Value Sensor 2 High	
65.11	40066.11	Average Value Sensor 2 Low	

Modbus Address	PLC Address	Item	Description
65.12	40066.12	/	
65.13	40066.13	Average Value Sensor 3 High	
65.14	40066.14	Average Value Sensor 3 Low	
65.15	40066.15	/	
66.0	40067.0	AIN8 Sensor 1 High Unloading (Module 1)	
66.1	40067.1	AIN8 Sensor 1 Low Unloading (Module 1)	
66.2	40067.2	AIN8 Sensor 1 Open Unloading (Module 1)	
66.3	40067.3	AIN8 Sensor 2 High Unloading (Module 1)	
66.4	40067.4	AIN8 Sensor 2 Low Unloading (Module 1)	
66.5	40067.5	AIN8 Sensor 2 Open Unloading (Module 1)	
66.6	40067.6	AIN8 Sensor 3 High Unloading (Module 1)	
66.7	40067.7	AIN8 Sensor 3 Low Unloading (Module 1)	
66.8	40067.8	AIN8 Sensor 3 Open Unloading (Module 1)	
66.9	40067.9	AIN8 Sensor 4 High Unloading (Module 1)	
66.10	40067.10	AIN8 Sensor 4 Low Unloading (Module 1)	
66.11	40067.11	AIN8 Sensor 4 Open Unloading (Module 1)	
66.12	40067.12	AIN8 Sensor 5 High Unloading (Module 1)	
66.13	40067.13	AIN8 Sensor 5 Low Unloading (Module 1)	
66.14	40067.14	AIN8 Sensor 5 Open Unloading (Module 1)	
66.15	40067.15	AIN8 Sensor 6 High Unloading (Module 1)	
67.0	40068.0	AIN8 Sensor 6 Low Unloading (Module 1)	
67.1	40068.1	AIN8 Sensor 6 Open Unloading (Module 1)	
67.2	40068.2	AIN8 Sensor 7 High Unloading (Module 1)	
67.3	40068.3	AIN8 Sensor 7 Low Unloading (Module 1)	
67.4	40068.4	AIN8 Sensor 7 Open Unloading (Module 1)	
67.5	40068.5	AIN8 Sensor 8 High Unloading (Module 1)	
67.6	40068.6	AIN8 Sensor 8 Low Unloading (Module 1)	
67.7	40068.7	AIN8 Sensor 8 Open Unloading (Module 1)	
67.8	40068.8	AIN8 Sensor 1 High Unloading (Module 2)	
67.9	40068.9	AIN8 Sensor 1 Low Unloading (Module 2)	
67.10	40068.10	AIN8 Sensor 1 Open Unloading (Module 2)	
67.11	40068.11	AIN8 Sensor 2 High Unloading (Module 2)	
67.12	40068.12	AIN8 Sensor 2 Low Unloading (Module 2)	
67.13	40068.13	AIN8 Sensor 2 Open Unloading (Module 2)	
67.14	40068.14	AIN8 Sensor 3 High Unloading (Module 2)	
67.15	40068.15	AIN8 Sensor 3 Low Unloading (Module 2)	
68.0	40069.0	AIN8 Sensor 3 Open Unloading (Module 2)	
68.1	40069.1	AIN8 Sensor 4 High Unloading (Module 2)	
68.2	40069.2	AIN8 Sensor 4 Low Unloading (Module 2)	
68.3	40069.3	AIN8 Sensor 4 Open Unloading (Module 2)	
68.4	40069.4	AIN8 Sensor 5 High Unloading (Module 2)	
68.5	40069.5	AIN8 Sensor 5 Low Unloading (Module 2)	
68.6	40069.6	AIN8 Sensor 5 Open Unloading (Module 2)	

Modbus Address	PLC Address	Item	Description
68.7	40069.7	AIN8 Sensor 6 High Unloading (Module 2)	
68.8	40069.8	AIN8 Sensor 6 Low Unloading (Module 2)	
68.9	40069.9	AIN8 Sensor 6 Open Unloading (Module 2)	
68.10	40069.10	AIN8 Sensor 7 High Unloading (Module 2)	
68.11	40069.11	AIN8 Sensor 7 Low Unloading (Module 2)	
68.12	40069.12	AIN8 Sensor 7 Open Unloading (Module 2)	
68.13	40069.13	AIN8 Sensor 8 High Unloading (Module 2)	
68.14	40069.14	AIN8 Sensor 8 Low Unloading (Module 2)	
68.15	40069.15	AIN8 Sensor 8 Open Unloading (Module 2)	
69.0	40070.0	/	
69.1	40070.1	/	
69.2	40070.2	/	
69.3	40070.3	/	
69.4	40070.4	/	
69.5	40070.5	/	
69.6	40070.6	/	
69.7	40070.7	/	
69.8	40070.8	/	
69.9	40070.9	/	
69.10	40070.10	/	
69.11	40070.11	/	
69.12	40070.12	/	
69.13	40070.13	/	
69.14	40070.14	/	
69.15	40070.15	/	
70.0	40071.0	/	
70.1	40071.1	/	
70.2	40071.2	/	
70.3	40071.3	/	
70.4	40071.4	/	
70.5	40071.5	/	
70.6	40071.6	/	
70.7	40071.7	/	
70.8	40071.8	/	
70.9	40071.9	/	
70.10	40071.10	/	
70.11	40071.11	/	
70.12	40071.12	/	
70.13	40071.13	/	
70.14	40071.14	/	
70.15	40071.15	/	
71.0	40072.0	/	
71.1	40072.1	/	

Modbus Address	PLC Address	Item	Description
71.2	40072.2	/	
71.3	40072.3	/	
71.4	40072.4	/	
71.5	40072.5	/	
71.6	40072.6	/	
71.7	40072.7	/	
71.8	40072.8	/	
71.9	40072.9	/	
71.10	40072.10	/	
71.11	40072.11	/	
71.12	40072.12	/	
71.13	40072.13	/	
71.14	40072.14	/	
71.15	40072.15	/	
72.0	40073.0	Input 1 Unloading (Expansion 1)	
72.1	40073.1	Input 2 Unloading (Expansion 1)	
72.2	40073.2	Input 3 Unloading (Expansion 1)	
72.3	40073.3	Input 4 Unloading (Expansion 1)	
72.4	40073.4	Input 5 Unloading (Expansion 1)	
72.5	40073.5	Input 6 Unloading (Expansion 1)	
72.6	40073.6	Input 7 Unloading (Expansion 1)	
72.7	40073.7	Input 8 Unloading (Expansion 1)	
72.8	40073.8	Input 9 Unloading (Expansion 1)	
72.9	40073.9	Input 10 Unloading (Expansion 1)	
72.10	40073.10	Input 11 Unloading (Expansion 1)	
72.11	40073.11	Input 12 Unloading (Expansion 1)	
72.12	40073.12	Input 13 Unloading (Expansion 1)	
72.13	40073.13	Input 14 Unloading (Expansion 1)	
72.14	40073.14	Input 15 Unloading (Expansion 1)	
72.15	40073.15	Input 16 Unloading (Expansion 1)	
73	40074	Input 1-16 Unloading (Expansion 2)	
74	40075	PLC 1-16 Unloading Alarm	
75.0	40076.0	PLC 17 Unloading	
75.1	40076.1	PLC 18 Unloading	
75.2	40076.2	PLC 19 Unloading	
75.3	40076.3	PLC 20 Unloading	
75.4	40076.4	/	
75.5	40076.5	/	
75.6	40076.6	/	
75.7	40076.7	/	
75.8	40076.8	/	
75.9	40076.9	/	
75.10	40076.10	/	

Modbus Address	PLC Address	Item	Description
75.11	40076.11	/	
75.12	40076.12	/	
75.13	40076.13	/	
75.14	40076.14	/	
75.15	40076.15	/	
76.0	40077.0	ECU Custom Sensor 1 High Unloading	
76.1	40077.1	ECU Custom Sensor 1 Low Unloading	
76.2	40077.2	/	
76.3	40077.3	ECU Custom Sensor 2 High Unloading	
76.4	40077.4	ECU Custom Sensor 2 Low Unloading	
76.5	40077.5	/	
76.6	40077.6	ECU Custom Sensor 3 High Unloading	
76.7	40077.7	ECU Custom Sensor 3 Low Unloading	
76.8	40077.8	/	
76.9	40077.9	ECU Custom Sensor 4 High Unloading	
76.10	40077.10	ECU Custom Sensor 4 Low Unloading	
76.11	40077.11	/	
76.12	40077.12	ECU Custom Sensor 5 High Unloading	
76.13	40077.13	ECU Custom Sensor 5 Low Unloading	
76.14	40077.14	/	
76.15	40077.15	ECU Custom Sensor 6 High Unloading	
77.0	40078.0	ECU Custom Sensor 6 Low Unloading	
77.1	40078.1	/	
77.2	40078.2	ECU Custom Sensor 7 High Unloading	
77.3	40078.3	ECU Custom Sensor 7 Low Unloading	
77.4	40078.4	/	
77.5	40078.5	ECU Custom Sensor 8 High Unloading	
77.6	40078.6	ECU Custom Sensor 8 Low Unloading	
77.7	40078.7	/	
77.8	40078.8	ECU Custom Sensor 9 High Unloading	
77.9	40078.9	ECU Custom Sensor 9 Low Unloading	
77.10	40078.10	/	
77.11	40078.11	ECU Custom Sensor 10 High Unloading	
77.12	40078.12	ECU Custom Sensor 10 Low Unloading	
77.13	40078.13	/	
77.14	40078.14	ECU Custom Sensor 11 High Unloading	
77.15	40078.15	ECU Custom Sensor 11 Low Unloading	
78.0	40079.0	/	
78.1	40079.1	ECU Custom Sensor 12 High Unloading	
78.2	40079.2	ECU Custom Sensor 12 Low Unloading	
78.3	40079.3	/	
78.4	40079.4	ECU Custom Sensor 13 High Unloading	
78.5	40079.5	ECU Custom Sensor 13 Low Unloading	

Modbus Address	PLC Address	Item	Description
78.6	40079.6	/	
78.7	40079.7	ECU Custom Sensor 14 High Unloading	
78.8	40079.8	ECU Custom Sensor 14 Low Unloading	
78.9	40079.9	/	
78.10	40079.10	ECU Custom Sensor 15 High Unloading	
78.11	40079.11	ECU Custom Sensor 15 Low Unloading	
78.12	40079.12	/	
78.13	40079.13	ECU Custom Sensor 16 High Unloading	
78.14	40079.14	ECU Custom Sensor 16 Low Unloading	
78.15	40079.15	/	
79.0	40080.0	ECU Custom Sensor 17 High Unloading	
79.1	40080.1	ECU Custom Sensor 17 Low Unloading	
79.2	40080.2	/	
79.3	40080.3	ECU Custom Sensor 18 High Unloading	
79.4	40080.4	ECU Custom Sensor 18 Low Unloading	
79.5	40080.5	/	
79.6	40080.6	ECU Custom Sensor 19 High Unloading	
79.7	40080.7	ECU Custom Sensor 19 Low Unloading	
79.8	40080.8	/	
79.9	40080.9	ECU Custom Sensor 20 High Unloading	
79.10	40080.10	ECU Custom Sensor 20 Low Unloading	
79.11	40080.11	/	
79.12	40080.12	/	
79.13	40080.13	/	
79.14	40080.14	/	
79.15	40080.15	/	
80.0	40081.0	AIN23 Sensor 1 High Unloading	
80.1	40081.1	AIN23 Sensor 1 Low Unloading	
80.2	40081.2	AIN23 Sensor 1 Open Unloading	
80.3	40081.3	AIN23 Sensor 2 High Unloading	
80.4	40081.4	AIN23 Sensor 2 Low Unloading	
80.5	40081.5	AIN23 Sensor 2 Open Unloading	
80.6	40081.6	AIN23 Sensor 3 High Unloading	
80.7	40081.7	AIN23 Sensor 3 Low Unloading	
80.8	40081.8	AIN23 Sensor 3 Open Unloading	
80.9	40081.9	AIN23 Sensor 4 High Unloading	
80.10	40081.10	AIN23 Sensor 4 Low Unloading	
80.11	40081.11	AIN23 Sensor 4 Open Unloading	
80.12	40081.12	AIN23 Sensor 5 High Unloading	
80.13	40081.13	AIN23 Sensor 5 Low Unloading	
80.14	40081.14	AIN23 Sensor 5 Open Unloading	
80.15	40081.15	AIN23 Sensor 6 High Unloading	
81.0	40082.0	AIN23 Sensor 6 Low Unloading	

Modbus Address	PLC Address	Item	Description
81.1	40082.1	AIN23 Sensor 6 Open Unloading	
81.2	40082.2	AIN23 Sensor 7 High Unloading	
81.3	40082.3	AIN23 Sensor 7 Low Unloading	
81.4	40082.4	AIN23 Sensor 7 Open Unloading	
81.5	40082.5	AIN23 Sensor 8 High Unloading	
81.6	40082.6	AIN23 Sensor 8 Low Unloading	
81.7	40082.7	AIN23 Sensor 8 Open Unloading	
81.8	40082.8	AIN23 Sensor 9 High Unloading	
81.9	40082.9	AIN23 Sensor 9 Low Unloading	
81.10	40082.10	AIN23 Sensor 9 Open Unloading	
81.11	40082.11	AIN23 Sensor 10 High Unloading	
81.12	40082.12	AIN23 Sensor 10 Low Unloading	
81.13	40082.13	AIN23 Sensor 10 Open Unloading	
81.14	40082.14	AIN23 Sensor 11 High Unloading	
81.15	40082.15	AIN23 Sensor 11 Low Unloading	
82.0	40083.0	AIN23 Sensor 11 Open Unloading	
82.1	40083.1	AIN23 Sensor 12 High Unloading	
82.2	40083.2	AIN23 Sensor 12 Low Unloading	
82.3	40083.3	AIN23 Sensor 12 Open Unloading	
82.4	40083.4	AIN23 Sensor 13 High Unloading	
82.5	40083.5	AIN23 Sensor 13 Low Unloading	
82.6	40083.6	AIN23 Sensor 13 Open Unloading	
82.7	40083.7	AIN23 Sensor 14 High Unloading	
82.8	40083.8	AIN23 Sensor 14 Low Unloading	
82.9	40083.9	AIN23 Sensor 14 Open Unloading	
82.10	40083.10	AIN23 Sensor 15 High Unloading	
82.11	40083.11	AIN23 Sensor 15 Low Unloading	
82.12	40083.12	AIN23 Sensor 15 Open Unloading	
82.13	40083.13	AIN23 Sensor 16 High Unloading	
82.14	40083.14	AIN23 Sensor 16 Low Unloading	
82.15	40083.15	AIN23 Sensor 16 Open Unloading	
83.0	40084.0	AIN23 Sensor 17 High Unloading	
83.1	40084.1	AIN23 Sensor 17 Low Unloading	
83.2	40084.2	AIN23 Sensor 17 Open Unloading	
83.3	40084.3	AIN23 Sensor 18 High Unloading	
83.4	40084.4	AIN23 Sensor 18 Low Unloading	
83.5	40084.5	AIN23 Sensor 18 Open Unloading	
83.6	40084.6	AIN23 Sensor 19 High Unloading	
83.7	40084.7	AIN23 Sensor 19 Low Unloading	
83.8	40084.8	AIN23 Sensor 19 Open Unloading	
83.9	40084.9	AIN23 Sensor 20 High Unloading	
83.10	40084.10	AIN23 Sensor 20 Low Unloading	
83.11	40084.11	AIN23 Sensor 20 Open Unloading	

Modbus Address	PLC Address	Item	Description
83.12	40084.12	AIN23 Sensor 21 High Unloading	
83.13	40084.13	AIN23 Sensor 21 Low Unloading	
83.14	40084.14	AIN23 Sensor 21 Open Unloading	
83.15	40084.15	AIN23 Sensor 22 High Unloading	
84.0	40085.0	AIN23 Sensor 22 Low Unloading	
84.1	40085.1	AIN23 Sensor 22 Open Unloading	
84.2	40085.2	AIN23 Sensor 23 High Unloading	
84.3	40085.3	AIN23 Sensor 23 Low Unloading	
84.4	40085.4	AIN23 Sensor 23 Open Unloading	
84.5	40085.5	/	
84.6	40085.6	/	
84.7	40085.7	/	
84.8	40085.8	/	
84.9	40085.9	/	
84.10	40085.10	/	
84.11	40085.11	/	
84.12	40085.12	/	
84.13	40085.13	/	
84.14	40085.14	/	
84.15	40085.15	/	
85.0	40086.0	AIN23 Sensor 1 High Unloading (Module 2)	
85.1	40086.1	AIN23 Sensor 1 Low Unloading (Module 2)	
85.2	40086.2	AIN23 Sensor 1 Open Unloading (Module 2)	
85.3	40086.3	AIN23 Sensor 2 High Unloading (Module 2)	
85.4	40086.4	AIN23 Sensor 2 Low Unloading (Module 2)	
85.5	40086.5	AIN23 Sensor 2 Open Unloading (Module 2)	
85.6	40086.6	AIN23 Sensor 3 High Unloading (Module 2)	
85.7	40086.7	AIN23 Sensor 3 Low Unloading (Module 2)	
85.8	40086.8	AIN23 Sensor 3 Open Unloading (Module 2)	
85.9	40086.9	AIN23 Sensor 4 High Unloading (Module 2)	
85.10	40086.10	AIN23 Sensor 4 Low Unloading (Module 2)	
85.11	40086.11	AIN23 Sensor 4 Open Unloading (Module 2)	
85.12	40086.12	AIN23 Sensor 5 High Unloading (Module 2)	
85.13	40086.13	AIN23 Sensor 5 Low Unloading (Module 2)	
85.14	40086.14	AIN23 Sensor 5 Open Unloading (Module 2)	
85.15	40086.15	AIN23 Sensor 6 High Unloading (Module 2)	
86.0	40087.0	AIN23 Sensor 6 Low Unloading (Module 2)	
86.1	40087.1	AIN23 Sensor 6 Open Unloading (Module 2)	
86.2	40087.2	AIN23 Sensor 7 High Unloading (Module 2)	
86.3	40087.3	AIN23 Sensor 7 Low Unloading (Module 2)	
86.4	40087.4	AIN23 Sensor 7 Open Unloading (Module 2)	
86.5	40087.5	AIN23 Sensor 8 High Unloading (Module 2)	
86.6	40087.6	AIN23 Sensor 8 Low Unloading (Module 2)	

Modbus Address	PLC Address	Item	Description
86.7	40087.7	AIN23 Sensor 8 Open Unloading (Module 2)	
86.8	40087.8	AIN23 Sensor 9 High Unloading (Module 2)	
86.9	40087.9	AIN23 Sensor 9 Low Unloading (Module 2)	
86.10	40087.10	AIN23 Sensor 9 Open Unloading (Module 2)	
86.11	40087.11	AIN23 Sensor 10 High Unloading (Module 2)	
86.12	40087.12	AIN23 Sensor 10 Low Unloading (Module 2)	
86.13	40087.13	AIN23 Sensor 10 Open Unloading (Module 2)	
86.14	40087.14	AIN23 Sensor 11 High Unloading (Module 2)	
86.15	40087.15	AIN23 Sensor 11 Low Unloading (Module 2)	
87.0	40088.0	AIN23 Sensor 11 Open Unloading (Module 2)	
87.1	40088.1	AIN23 Sensor 12 High Unloading (Module 2)	
87.2	40088.2	AIN23 Sensor 12 Low Unloading (Module 2)	
87.3	40088.3	AIN23 Sensor 12 Open Unloading (Module 2)	
87.4	40088.4	AIN23 Sensor 13 High Unloading (Module 2)	
87.5	40088.5	AIN23 Sensor 13 Low Unloading (Module 2)	
87.6	40088.6	AIN23 Sensor 13 Open Unloading (Module 2)	
87.7	40088.7	AIN23 Sensor 14 High Unloading (Module 2)	
87.8	40088.8	AIN23 Sensor 14 Low Unloading (Module 2)	
87.9	40088.9	AIN23 Sensor 14 Open Unloading (Module 2)	
87.10	40088.10	AIN23 Sensor 15 High Unloading (Module 2)	
87.11	40088.11	AIN23 Sensor 15 Low Unloading (Module 2)	
87.12	40088.12	AIN23 Sensor 15 Open Unloading (Module 2)	
87.13	40088.13	AIN23 Sensor 16 High Unloading (Module 2)	
87.14	40088.14	AIN23 Sensor 16 Low Unloading (Module 2)	
87.15	40088.15	AIN23 Sensor 16 Open Unloading (Module 2)	
88.0	40089.0	AIN23 Sensor 17 High Unloading (Module 2)	
88.1	40089.1	AIN23 Sensor 17 Low Unloading (Module 2)	
88.2	40089.2	AIN23 Sensor 17 Open Unloading (Module 2)	
88.3	40089.3	AIN23 Sensor 18 High Unloading (Module 2)	
88.4	40089.4	AIN23 Sensor 18 Low Unloading (Module 2)	
88.5	40089.5	AIN23 Sensor 18 Open Unloading (Module 2)	
88.6	40089.6	AIN23 Sensor 19 High Unloading (Module 2)	
88.7	40089.7	AIN23 Sensor 19 Low Unloading (Module 2)	
88.8	40089.8	AIN23 Sensor 19 Open Unloading (Module 2)	
88.9	40089.9	AIN23 Sensor 20 High Unloading (Module 2)	
88.10	40089.10	AIN23 Sensor 20 Low Unloading (Module 2)	
88.11	40089.11	AIN23 Sensor 20 Open Unloading (Module 2)	
88.12	40089.12	AIN23 Sensor 21 High Unloading (Module 2)	
88.13	40089.13	AIN23 Sensor 21 Low Unloading (Module 2)	
88.14	40089.14	AIN23 Sensor 21 Open Unloading (Module 2)	
88.15	40089.15	AIN23 Sensor 22 High Unloading (Module 2)	
89.0	40090.0	AIN23 Sensor 22 Low Unloading (Module 2)	
89.1	40090.1	AIN23 Sensor 22 Open Unloading (Module 2)	

Modbus Address	PLC Address	Item	Description
89.2	40090.2	AIN23 Sensor 23 High Unloading (Module 2)	
89.3	40090.3	AIN23 Sensor 23 Low Unloading (Module 2)	
89.4	40090.4	AIN23 Sensor 23 Open Unloading (Module 2)	
89.5	40090.5	/	
89.6	40090.6	/	
89.7	40090.7	/	
89.8	40090.8	/	
89.9	40090.9	/	
89.10	40090.10	/	
89.11	40090.11	/	
89.12	40090.12	/	
89.13	40090.13	/	
89.14	40090.14	/	
89.15	40090.15	/	
90.0	40091.0	AIN16-M01 Sensor 1 High Unloading	
90.1	40091.1	AIN16-M01 Sensor 1 Low Unloading	
90.2	40091.2	AIN16-M01 Sensor 1 Open Unloading	
90.3	40091.3	AIN16-M01 Sensor 2 High Unloading	
90.4	40091.4	AIN16-M01 Sensor 2 Low Unloading	
90.5	40091.5	AIN16-M01 Sensor 2 Open Unloading	
90.6	40091.6	AIN16-M01 Sensor 3 High Unloading	
90.7	40091.7	AIN16-M01 Sensor 3 Low Unloading	
90.8	40091.8	AIN16-M01 Sensor 3 Open Unloading	
90.9	40091.9	AIN16-M01 Sensor 4 High Unloading	
90.10	40091.10	AIN16-M01 Sensor 4 Low Unloading	
90.11	40091.11	AIN16-M01 Sensor 4 Open Unloading	
90.12	40091.12	AIN16-M01 Sensor 5 High Unloading	
90.13	40091.13	AIN16-M01 Sensor 5 Low Unloading	
90.14	40091.14	AIN16-M01 Sensor 5 Open Unloading	
90.15	40091.15	AIN16-M01 Sensor 6 High Unloading	
91.0	40092.0	AIN16-M01 Sensor 6 Low Unloading	
91.1	40092.1	AIN16-M01 Sensor 6 Open Unloading	
91.2	40092.2	AIN16-M01 Sensor 7 High Unloading	
91.3	40092.3	AIN16-M01 Sensor 7 Low Unloading	
91.4	40092.4	AIN16-M01 Sensor 7 Open Unloading	
91.5	40092.5	AIN16-M01 Sensor 8 High Unloading	
91.6	40092.6	AIN16-M01 Sensor 8 Low Unloading	
91.7	40092.7	AIN16-M01 Sensor 8 Open Unloading	
91.8	40092.8	AIN16-M01 Sensor 9 High Unloading	
91.9	40092.9	AIN16-M01 Sensor 9 Low Unloading	
91.10	40092.10	AIN16-M01 Sensor 9 Open Unloading	
91.11	40092.11	AIN16-M01 Sensor 10 High Unloading	
91.12	40092.12	AIN16-M01 Sensor 10 Low Unloading	

Modbus Address	PLC Address	Item	Description
91.13	40092.13	AIN16-M01 Sensor 10 Open Unloading	
91.14	40092.14	AIN16-M01 Sensor 11 High Unloading	
91.15	40092.15	AIN16-M01 Sensor 11 Low Unloading	
92.0	40093.0	AIN16-M01 Sensor 11 Open Unloading	
92.1	40093.1	AIN16-M01 Sensor 12 High Unloading	
92.2	40093.2	AIN16-M01 Sensor 12 Low Unloading	
92.3	40093.3	AIN16-M01 Sensor 12 Open Unloading	
92.4	40093.4	Difference Sensor 1 High Unloading	
92.5	40093.5	Difference Sensor 1 Low Unloading	
92.6	40093.6	/	
92.7	40093.7	Difference Sensor 2 High Unloading	
92.8	40093.8	Difference Sensor 2 Low Unloading	
92.9	40093.9	/	
92.10	40093.10	Difference Sensor 3 High Unloading	
92.11	40093.11	Difference Sensor 3 Low Unloading	
92.12	40093.12	/	
92.13	40093.13	Difference Sensor 4 High Unloading	
92.14	40093.14	Difference Sensor 4 Low Unloading	
92.15	40093.15	/	
93	40094	/	
94	40095	/	
95	40096	/	
96	40097	/	
97	40098	/	
98	40099	/	
99	40100	/	
100	40101	/	
101	40102	/	
102.0	40103.0	/	
102.1	40103.1	Over Speed Alarm	
102.2	40103.2	/	
102.3	40103.3	Loss of Speed Signal Alarm	
102.4	40103.4	/	
102.5	40103.5	/	
102.6	40103.6	/	
102.7	40103.7	/	
102.8	40103.8	/	
102.9	40103.9	/	
102.10	40103.10	/	
102.11	40103.11	/	
102.12	40103.12	/	
102.13	40103.13	/	
102.14	40103.14	/	

Modbus Address	PLC Address	Item	Description
102.15	40103.15	/	
103	40104	/	
104	40105	/	
105	40106	/	
106	40107	/	
107	40108	/	
108	40109	/	
109	40110	/	
110	40111	/	
111	40112	/	
112.0	40113.0	Sensor 1 High Alarm	
112.1	40113.1	Sensor 1 Low Alarm	
112.2	40113.2	Sensor 1 Open Alarm	
112.3	40113.3	Sensor 2 High Alarm	
112.4	40113.4	Sensor 2 Low Alarm	
112.5	40113.5	Sensor 2 Open Alarm	
112.6	40113.6	Sensor 3 High Alarm	
112.7	40113.7	Sensor 3 Low Alarm	
112.8	40113.8	Sensor 3 Open Alarm	
112.9	40113.9	Sensor 4 High Alarm	
112.10	40113.10	Sensor 4 Low Alarm	
112.11	40113.11	Sensor 4 Open Alarm	
112.12	40113.12	Sensor 5 High Alarm	
112.13	40113.13	Sensor 5 Low Alarm	
112.14	40113.14	Sensor 5 Open Alarm	
112.15	40113.15	Sensor 6 High Alarm	
113.0	40114.0	Sensor 6 Low Alarm	
113.1	40114.1	Sensor 6 Open Alarm	
113.2	40114.2	Sensor 7 High Alarm	
113.3	40114.3	Sensor 7 Low Alarm	
113.4	40114.4	Sensor 7 Open Alarm	
113.5	40114.5	Sensor 8 High Alarm	
113.6	40114.6	Sensor 8 Low Alarm	
113.7	40114.7	Sensor 8 Open Alarm	
113.8	40114.8	Sensor 9 High Alarm	
113.9	40114.9	Sensor 9 Low Alarm	
113.10	40114.10	Sensor 9 Open Alarm	
113.11	40114.11	Sensor 10 High Alarm	
113.12	40114.12	Sensor 10 Low Alarm	
113.13	40114.13	Sensor 10 Open Alarm	
113.14	40114.14	/	
113.15	40114.15	/	
114.0	40115.0	Input 1 Alarm	

Modbus Address	PLC Address	Item	Description
114.1	40115.1	Input 2 Alarm	
114.2	40115.2	Input 3 Alarm	
114.3	40115.3	Input 4 Alarm	
114.4	40115.4	Input 5 Alarm	
114.5	40115.5	Input 6 Alarm	
114.6	40115.6	Input 7 Alarm	
114.7	40115.7	Input 8 Alarm	
114.8	40115.8	Input 9 Alarm	
114.9	40115.9	Input 10 Alarm	
114.10	40115.10	Input 11 Alarm	
114.11	40115.11	Input 12 Alarm	
114.12	40115.12	Input 13 Alarm	
114.13	40115.13	Input 14 Alarm	
114.14	40115.14	Input 15 Alarm	
114.15	40115.15	Input 16 Alarm	
115.0	40116.0	Input 17 Alarm	
115.1	40116.1	Input 18 Alarm	
115.2	40116.2	/	
115.3	40116.3	/	
115.4	40116.4	/	
115.5	40116.5	/	
115.6	40116.6	/	
115.7	40116.7	Average Value Sensor 1 High	
115.8	40116.8	Average Value Sensor 1 Low	
115.9	40116.9	/	
115.10	40116.10	Average Value Sensor 2 High	
115.11	40116.11	Average Value Sensor 2 Low	
115.12	40116.12	/	
115.13	40116.13	Average Value Sensor 3 High	
115.14	40116.14	Average Value Sensor 3 Low	
115.15	40116.15	/	
116.0	40117.0	AIN8 Sensor 1 High Alarm (Module 1)	
116.1	40117.1	AIN8 Sensor 1 Low Alarm (Module 1)	
116.2	40117.2	AIN8 Sensor 1 Open Alarm (Module 1)	
116.3	40117.3	AIN8 Sensor 2 High Alarm (Module 1)	
116.4	40117.4	AIN8 Sensor 2 Low Alarm (Module 1)	
116.5	40117.5	AIN8 Sensor 2 Open Alarm (Module 1)	
116.6	40117.6	AIN8 Sensor 3 High Alarm (Module 1)	
116.7	40117.7	AIN8 Sensor 3 Low Alarm (Module 1)	
116.8	40117.8	AIN8 Sensor 3 Open Alarm (Module 1)	
116.9	40117.9	AIN8 Sensor 4 High Alarm (Module 1)	
116.10	40117.10	AIN8 Sensor 4 Low Alarm (Module 1)	
116.11	40117.11	AIN8 Sensor 4 Open Alarm (Module 1)	

Modbus Address	PLC Address	Item	Description
116.12	40117.12	AIN8 Sensor 5 High Alarm (Module 1)	
116.13	40117.13	AIN8 Sensor 5 Low Alarm (Module 1)	
116.14	40117.14	AIN8 Sensor 5 Open Alarm (Module 1)	
116.15	40117.15	AIN8 Sensor 6 High Alarm (Module 1)	
117.0	40118.0	AIN8 Sensor 6 Low Alarm (Module 1)	
117.1	40118.1	AIN8 Sensor 6 Open Alarm (Module 1)	
117.2	40118.2	AIN8 Sensor 7 High Alarm (Module 1)	
117.3	40118.3	AIN8 Sensor 7 Low Alarm (Module 1)	
117.4	40118.4	AIN8 Sensor 7 Open Alarm (Module 1)	
117.5	40118.5	AIN8 Sensor 8 High Alarm (Module 1)	
117.6	40118.6	AIN8 Sensor 8 Low Alarm (Module 1)	
117.7	40118.7	AIN8 Sensor 8 Open Alarm (Module 1)	
117.8	40118.8	AIN8 Sensor 1 High Alarm (Module 2)	
117.9	40118.9	AIN8 Sensor 1 Low Alarm (Module 2)	
117.10	40118.10	AIN8 Sensor 1 Open Alarm (Module 2)	
117.11	40118.11	AIN8 Sensor 2 High Alarm (Module 2)	
117.12	40118.12	AIN8 Sensor 2 Low Alarm (Module 2)	
117.13	40118.13	AIN8 Sensor 2 Open Alarm (Module 2)	
117.14	40118.14	AIN8 Sensor 3 High Alarm (Module 2)	
117.15	40118.15	AIN8 Sensor 3 Low Alarm (Module 2)	
118.0	40119.0	AIN8 Sensor 3 Open Alarm (Module 2)	
118.1	40119.1	AIN8 Sensor 4 High Alarm (Module 2)	
118.2	40119.2	AIN8 Sensor 4 Low Alarm (Module 2)	
118.3	40119.3	AIN8 Sensor 4 Open Alarm (Module 2)	
118.4	40119.4	AIN8 Sensor 5 High Alarm (Module 2)	
118.5	40119.5	AIN8 Sensor 5 Low Alarm (Module 2)	
118.6	40119.6	AIN8 Sensor 5 Open Alarm (Module 2)	
118.7	40119.7	AIN8 Sensor 6 High Alarm (Module 2)	
118.8	40119.8	AIN8 Sensor 6 Low Alarm (Module 2)	
118.9	40119.9	AIN8 Sensor 6 Open Alarm (Module 2)	
118.10	40119.10	AIN8 Sensor 7 High Alarm (Module 2)	
118.11	40119.11	AIN8 Sensor 7 Low Alarm (Module 2)	
118.12	40119.12	AIN8 Sensor 7 Open Alarm (Module 2)	
118.13	40119.13	AIN8 Sensor 8 High Alarm (Module 2)	
118.14	40119.14	AIN8 Sensor 8 Low Alarm (Module 2)	
118.15	40119.15	AIN8 Sensor 8 Open Alarm (Module 2)	
119.0	40120.0	/	
119.1	40120.1	/	
119.2	40120.2	/	
119.3	40120.3	/	
119.4	40120.4	/	
119.5	40120.5	/	
119.6	40120.6	/	

Modbus Address	PLC Address	Item	Description
119.7	40120.7	/	
119.8	40120.8	/	
119.9	40120.9	/	
119.10	40120.10	/	
119.11	40120.11	/	
119.12	40120.12	/	
119.13	40120.13	/	
119.14	40120.14	/	
119.15	40120.15	/	
120.0	40121.0	/	
120.1	40121.1	/	
120.2	40121.2	/	
120.3	40121.3	/	
120.4	40121.4	/	
120.5	40121.5	/	
120.6	40121.6	/	
120.7	40121.7	/	
120.8	40121.8	/	
120.9	40121.9	/	
120.10	40121.10	/	
120.11	40121.11	/	
120.12	40121.12	/	
120.13	40121.13	/	
120.14	40121.14	/	
120.15	40121.15	/	
121.0	40122.0	/	
121.1	40122.1	/	
121.2	40122.2	/	
121.3	40122.3	/	
121.4	40122.4	/	
121.5	40122.5	/	
121.6	40122.6	/	
121.7	40122.7	/	
121.8	40122.8	/	
121.9	40122.9	/	
121.10	40122.10	/	
121.11	40122.11	/	
121.12	40122.12	/	
121.13	40122.13	/	
121.14	40122.14	/	
121.15	40122.15	/	
122.0	40123.0	Input 1 Alarm (Expansion 1)	
122.1	40123.1	Input 2 Alarm (Expansion 1)	

Modbus Address	PLC Address	Item	Description
122.2	40123.2	Input 3 Alarm (Expansion 1)	
122.3	40123.3	Input 4 Alarm (Expansion 1)	
122.4	40123.4	Input 5 Alarm (Expansion 1)	
122.5	40123.5	Input 6 Alarm (Expansion 1)	
122.6	40123.6	Input 7 Alarm (Expansion 1)	
122.7	40123.7	Input 8 Alarm (Expansion 1)	
122.8	40123.8	Input 9 Alarm (Expansion 1)	
122.9	40123.9	Input 10 Alarm (Expansion 1)	
122.10	40123.10	Input 11 Alarm (Expansion 1)	
122.11	40123.11	Input 12 Alarm (Expansion 1)	
122.12	40123.12	Input 13 Alarm (Expansion 1)	
122.13	40123.13	Input 14 Alarm (Expansion 1)	
122.14	40123.14	Input 15 Alarm (Expansion 1)	
122.15	40123.15	Input 16 Alarm (Expansion 1)	
123	40124	Input 1-16 Alarm (Expansion 2)	
124	40125	PLC 1-16 Alarm	
125.0	40126.0	PLC 17 Alarm	
125.1	40126.1	PLC 18 Alarm	
125.2	40126.2	PLC 19 Alarm	
125.3	40126.3	PLC 20 Alarm	
125.4	40126.4	/	
125.5	40126.5	/	
125.6	40126.6	/	
125.7	40126.7	/	
125.8	40126.8	/	
125.9	40126.9	/	
125.10	40126.10	/	
125.11	40126.11	/	
125.12	40126.12	/	
125.13	40126.13	/	
125.14	40126.14	/	
125.15	40126.15	/	
126.0	40127.0	ECU Custom Sensor 1 High Alarm	
126.1	40127.1	ECU Custom Sensor 1 Low Alarm	
126.2	40127.2	/	
126.3	40127.3	ECU Custom Sensor 2 High Alarm	
126.4	40127.4	ECU Custom Sensor 2 Low Alarm	
126.5	40127.5	/	
126.6	40127.6	ECU Custom Sensor 3 High Alarm	
126.7	40127.7	ECU Custom Sensor 3 Low Alarm	
126.8	40127.8	/	
126.9	40127.9	ECU Custom Sensor 4 High Alarm	
126.10	40127.10	ECU Custom Sensor 4 Low Alarm	

Modbus Address	PLC Address	Item	Description
126.11	40127.11	/	
126.12	40127.12	ECU Custom Sensor 5 High Alarm	
126.13	40127.13	ECU Custom Sensor 5 Low Alarm	
126.14	40127.14	/	
126.15	40127.15	ECU Custom Sensor 6 High Alarm	
127.0	40128.0	ECU Custom Sensor 6 Low Alarm	
127.1	40128.1	/	
127.2	40128.2	ECU Custom Sensor 7 High Alarm	
127.3	40128.3	ECU Custom Sensor 7 Low Alarm	
127.4	40128.4	/	
127.5	40128.5	ECU Custom Sensor 8 High Alarm	
127.6	40128.6	ECU Custom Sensor 8 Low Alarm	
127.7	40128.7	/	
127.8	40128.8	ECU Custom Sensor 9 High Alarm	
127.9	40128.9	ECU Custom Sensor 9 Low Alarm	
127.10	40128.10	/	
127.11	40128.11	ECU Custom Sensor 10 High Alarm	
127.12	40128.12	ECU Custom Sensor 10 Low Alarm	
127.13	40128.13	/	
127.14	40128.14	ECU Custom Sensor 11 High Alarm	
127.15	40128.15	ECU Custom Sensor 11 Low Alarm	
128.0	40129.0	/	
128.1	40129.1	ECU Custom Sensor 12 High Alarm	
128.2	40129.2	ECU Custom Sensor 12 Low Alarm	
128.3	40129.3	/	
128.4	40129.4	ECU Custom Sensor 13 High Alarm	
128.5	40129.5	ECU Custom Sensor 13 Low Alarm	
128.6	40129.6	/	
128.7	40129.7	ECU Custom Sensor 14 High Alarm	
128.8	40129.8	ECU Custom Sensor 14 Low Alarm	
128.9	40129.9	/	
128.10	40129.10	ECU Custom Sensor 15 High Alarm	
128.11	40129.11	ECU Custom Sensor 15 Low Alarm	
128.12	40129.12	/	
128.13	40129.13	ECU Custom Sensor 16 High Alarm	
128.14	40129.14	ECU Custom Sensor 16 Low Alarm	
128.15	40129.15	/	
129.0	40130.0	ECU Custom Sensor 17 High Alarm	
129.1	40130.1	ECU Custom Sensor 17 Low Alarm	
129.2	40130.2	/	
129.3	40130.3	ECU Custom Sensor 18 High Alarm	
129.4	40130.4	ECU Custom Sensor 18 Low Alarm	
129.5	40130.5	/	

Modbus Address	PLC Address	Item	Description
129.6	40130.6	ECU Custom Sensor 19 High Alarm	
129.7	40130.7	ECU Custom Sensor 19 Low Alarm	
129.8	40130.8	/	
129.9	40130.9	ECU Custom Sensor 20 High Alarm	
129.10	40130.10	ECU Custom Sensor 20 Low Alarm	
129.11	40130.11	/	
129.12	40130.12	/	
129.13	40130.13	/	
129.14	40130.14	/	
129.15	40130.15	/	
130.0	40131.0	AIN23 Sensor 1 High Alarm	
130.1	40131.1	AIN23 Sensor 1 Low Alarm	
130.2	40131.2	AIN23 Sensor 1 Open Alarm	
130.3	40131.3	AIN23 Sensor 2 High Alarm	
130.4	40131.4	AIN23 Sensor 2 Low Alarm	
130.5	40131.5	AIN23 Sensor 2 Open Alarm	
130.6	40131.6	AIN23 Sensor 3 High Alarm	
130.7	40131.7	AIN23 Sensor 3 Low Alarm	
130.8	40131.8	AIN23 Sensor 3 Open Alarm	
130.9	40131.9	AIN23 Sensor 4 High Alarm	
130.10	40131.10	AIN23 Sensor 4 Low Alarm	
130.11	40131.11	AIN23 Sensor 4 Open Alarm	
130.12	40131.12	AIN23 Sensor 5 High Alarm	
130.13	40131.13	AIN23 Sensor 5 Low Alarm	
130.14	40131.14	AIN23 Sensor 5 Open Alarm	
130.15	40131.15	AIN23 Sensor 6 High Alarm	
131.0	40132.0	AIN23 Sensor 6 Low Alarm	
131.1	40132.1	AIN23 Sensor 6 Open Alarm	
131.2	40132.2	AIN23 Sensor 7 High Alarm	
131.3	40132.3	AIN23 Sensor 7 Low Alarm	
131.4	40132.4	AIN23 Sensor 7 Open Alarm	
131.5	40132.5	AIN23 Sensor 8 High Alarm	
131.6	40132.6	AIN23 Sensor 8 Low Alarm	
131.7	40132.7	AIN23 Sensor 8 Open Alarm	
131.8	40132.8	AIN23 Sensor 9 High Alarm	
131.9	40132.9	AIN23 Sensor 9 Low Alarm	
131.10	40132.10	AIN23 Sensor 9 Open Alarm	
131.11	40132.11	AIN23 Sensor 10 High Alarm	
131.12	40132.12	AIN23 Sensor 10 Low Alarm	
131.13	40132.13	AIN23 Sensor 10 Open Alarm	
131.14	40132.14	AIN23 Sensor 11 High Alarm	
131.15	40132.15	AIN23 Sensor 11 Low Alarm	
132.0	40133.0	AIN23 Sensor 11 Open Alarm	

Modbus Address	PLC Address	Item	Description
132.1	40133.1	AIN23 Sensor 12 High Alarm	
132.2	40133.2	AIN23 Sensor 12 Low Alarm	
132.3	40133.3	AIN23 Sensor 12 Open Alarm	
132.4	40133.4	AIN23 Sensor 13 High Alarm	
132.5	40133.5	AIN23 Sensor 13 Low Alarm	
132.6	40133.6	AIN23 Sensor 13 Open Alarm	
132.7	40133.7	AIN23 Sensor 14 High Alarm	
132.8	40133.8	AIN23 Sensor 14 Low Alarm	
132.9	40133.9	AIN23 Sensor 14 Open Alarm	
132.10	40133.10	AIN23 Sensor 15 High Alarm	
132.11	40133.11	AIN23 Sensor 15 Low Alarm	
132.12	40133.12	AIN23 Sensor 15 Open Alarm	
132.13	40133.13	AIN23 Sensor 16 High Alarm	
132.14	40133.14	AIN23 Sensor 16 Low Alarm	
132.15	40133.15	AIN23 Sensor 16 Open Alarm	
133.0	40134.0	AIN23 Sensor 17 High Alarm	
133.1	40134.1	AIN23 Sensor 17 Low Alarm	
133.2	40134.2	AIN23 Sensor 17 Open Alarm	
133.3	40134.3	AIN23 Sensor 18 High Alarm	
133.4	40134.4	AIN23 Sensor 18 Low Alarm	
133.5	40134.5	AIN23 Sensor 18 Open Alarm	
133.6	40134.6	AIN23 Sensor 19 High Alarm	
133.7	40134.7	AIN23 Sensor 19 Low Alarm	
133.8	40134.8	AIN23 Sensor 19 Open Alarm	
133.9	40134.9	AIN23 Sensor 20 High Alarm	
133.10	40134.10	AIN23 Sensor 20 Low Alarm	
133.11	40134.11	AIN23 Sensor 20 Open Alarm	
133.12	40134.12	AIN23 Sensor 21 High Alarm	
133.13	40134.13	AIN23 Sensor 21 Low Alarm	
133.14	40134.14	AIN23 Sensor 21 Open Alarm	
133.15	40134.15	AIN23 Sensor 22 High Alarm	
134.0	40135.0	AIN23 Sensor 22 Low Alarm	
134.1	40135.1	AIN23 Sensor 22 Open Alarm	
134.2	40135.2	AIN23 Sensor 23 High Alarm	
134.3	40135.3	AIN23 Sensor 23 Low Alarm	
134.4	40135.4	AIN23 Sensor 23 Open Alarm	
134.5	40135.5	/	
134.6	40135.6	/	
134.7	40135.7	/	
134.8	40135.8	/	
134.9	40135.9	/	
134.10	40135.10	/	
134.11	40135.11	/	

Modbus Address	PLC Address	Item	Description
134.12	40135.12	/	
134.13	40135.13	/	
134.14	40135.14	/	
134.15	40135.15	/	
135.0	40136.0	AIN23 Sensor 1 High Alarm (Module 2)	
135.1	40136.1	AIN23 Sensor 1 Low Alarm (Module 2)	
135.2	40136.2	AIN23 Sensor 1 Open Alarm (Module 2)	
135.3	40136.3	AIN23 Sensor 2 High Alarm (Module 2)	
135.4	40136.4	AIN23 Sensor 2 Low Alarm (Module 2)	
135.5	40136.5	AIN23 Sensor 2 Open Alarm (Module 2)	
135.6	40136.6	AIN23 Sensor 3 High Alarm (Module 2)	
135.7	40136.7	AIN23 Sensor 3 Low Alarm (Module 2)	
135.8	40136.8	AIN23 Sensor 3 Open Alarm (Module 2)	
135.9	40136.9	AIN23 Sensor 4 High Alarm (Module 2)	
135.10	40136.10	AIN23 Sensor 4 Low Alarm (Module 2)	
135.11	40136.11	AIN23 Sensor 4 Open Alarm (Module 2)	
135.12	40136.12	AIN23 Sensor 5 High Alarm (Module 2)	
135.13	40136.13	AIN23 Sensor 5 Low Alarm (Module 2)	
135.14	40136.14	AIN23 Sensor 5 Open Alarm (Module 2)	
135.15	40136.15	AIN23 Sensor 6 High Alarm (Module 2)	
136.0	40137.0	AIN23 Sensor 6 Low Alarm (Module 2)	
136.1	40137.1	AIN23 Sensor 6 Open Alarm (Module 2)	
136.2	40137.2	AIN23 Sensor 7 High Alarm (Module 2)	
136.3	40137.3	AIN23 Sensor 7 Low Alarm (Module 2)	
136.4	40137.4	AIN23 Sensor 7 Open Alarm (Module 2)	
136.5	40137.5	AIN23 Sensor 8 High Alarm (Module 2)	
136.6	40137.6	AIN23 Sensor 8 Low Alarm (Module 2)	
136.7	40137.7	AIN23 Sensor 8 Open Alarm (Module 2)	
136.8	40137.8	AIN23 Sensor 9 High Alarm (Module 2)	
136.9	40137.9	AIN23 Sensor 9 Low Alarm (Module 2)	
136.10	40137.10	AIN23 Sensor 9 Open Alarm (Module 2)	
136.11	40137.11	AIN23 Sensor 10 High Alarm (Module 2)	
136.12	40137.12	AIN23 Sensor 10 Low Alarm (Module 2)	
136.13	40137.13	AIN23 Sensor 10 Open Alarm (Module 2)	
136.14	40137.14	AIN23 Sensor 11 High Alarm (Module 2)	
136.15	40137.15	AIN23 Sensor 11 Low Alarm (Module 2)	
137.0	40138.0	AIN23 Sensor 11 Open Alarm (Module 2)	
137.1	40138.1	AIN23 Sensor 12 High Alarm (Module 2)	
137.2	40138.2	AIN23 Sensor 12 Low Alarm (Module 2)	
137.3	40138.3	AIN23 Sensor 12 Open Alarm (Module 2)	
137.4	40138.4	AIN23 Sensor 13 High Alarm (Module 2)	
137.5	40138.5	AIN23 Sensor 13 Low Alarm (Module 2)	
137.6	40138.6	AIN23 Sensor 13 Open Alarm (Module 2)	

Modbus Address	PLC Address	Item	Description
137.7	40138.7	AIN23 Sensor 14 High Alarm (Module 2)	
137.8	40138.8	AIN23 Sensor 14 Low Alarm (Module 2)	
137.9	40138.9	AIN23 Sensor 14 Open Alarm (Module 2)	
137.10	40138.10	AIN23 Sensor 15 High Alarm (Module 2)	
137.11	40138.11	AIN23 Sensor 15 Low Alarm (Module 2)	
137.12	40138.12	AIN23 Sensor 15 Open Alarm (Module 2)	
137.13	40138.13	AIN23 Sensor 16 High Alarm (Module 2)	
137.14	40138.14	AIN23 Sensor 16 Low Alarm (Module 2)	
137.15	40138.15	AIN23 Sensor 16 Open Alarm (Module 2)	
138.0	40139.0	AIN23 Sensor 17 High Alarm (Module 2)	
138.1	40139.1	AIN23 Sensor 17 Low Alarm (Module 2)	
138.2	40139.2	AIN23 Sensor 17 Open Alarm (Module 2)	
138.3	40139.3	AIN23 Sensor 18 High Alarm (Module 2)	
138.4	40139.4	AIN23 Sensor 18 Low Alarm (Module 2)	
138.5	40139.5	AIN23 Sensor 18 Open Alarm (Module 2)	
138.6	40139.6	AIN23 Sensor 19 High Alarm (Module 2)	
138.7	40139.7	AIN23 Sensor 19 Low Alarm (Module 2)	
138.8	40139.8	AIN23 Sensor 19 Open Alarm (Module 2)	
138.9	40139.9	AIN23 Sensor 20 High Alarm (Module 2)	
138.10	40139.10	AIN23 Sensor 20 Low Alarm (Module 2)	
138.11	40139.11	AIN23 Sensor 20 Open Alarm (Module 2)	
138.12	40139.12	AIN23 Sensor 21 High Alarm (Module 2)	
138.13	40139.13	AIN23 Sensor 21 Low Alarm (Module 2)	
138.14	40139.14	AIN23 Sensor 21 Open Alarm (Module 2)	
138.15	40139.15	AIN23 Sensor 22 High Alarm (Module 2)	
139.0	40140.0	AIN23 Sensor 22 Low Alarm (Module 2)	
139.1	40140.1	AIN23 Sensor 22 Open Alarm (Module 2)	
139.2	40140.2	AIN23 Sensor 23 High Alarm (Module 2)	
139.3	40140.3	AIN23 Sensor 23 Low Alarm (Module 2)	
139.4	40140.4	AIN23 Sensor 23 Open Alarm (Module 2)	
139.5	40140.5	/	
139.6	40140.6	/	
139.7	40140.7	/	
139.8	40140.8	/	
139.9	40140.9	/	
139.10	40140.10	/	
139.11	40140.11	/	
139.12	40140.12	/	
139.13	40140.13	/	
139.14	40140.14	/	
139.15	40140.15	/	
140.0	40141.0	AIN16-M01 Sensor 1 High Alarm	
140.1	40141.1	AIN16-M01 Sensor 1 Low Alarm	

Modbus Address	PLC Address	Item	Description
140.2	40141.2	AIN16-M01 Sensor 1 Open Alarm	
140.3	40141.3	AIN16-M01 Sensor 2 High Alarm	
140.4	40141.4	AIN16-M01 Sensor 2 Low Alarm	
140.5	40141.5	AIN16-M01 Sensor 2 Open Alarm	
140.6	40141.6	AIN16-M01 Sensor 3 High Alarm	
140.7	40141.7	AIN16-M01 Sensor 3 Low Alarm	
140.8	40141.8	AIN16-M01 Sensor 3 Open Alarm	
140.9	40141.9	AIN16-M01 Sensor 4 High Alarm	
140.10	40141.10	AIN16-M01 Sensor 4 Low Alarm	
140.11	40141.11	AIN16-M01 Sensor 4 Open Alarm	
140.12	40141.12	AIN16-M01 Sensor 5 High Alarm	
140.13	40141.13	AIN16-M01 Sensor 5 Low Alarm	
140.14	40141.14	AIN16-M01 Sensor 5 Open Alarm	
140.15	40141.15	AIN16-M01 Sensor 6 High Alarm	
141.0	40142.0	AIN16-M01 Sensor 6 Low Alarm	
141.1	40142.1	AIN16-M01 Sensor 6 Open Alarm	
141.2	40142.2	AIN16-M01 Sensor 7 High Alarm	
141.3	40142.3	AIN16-M01 Sensor 7 Low Alarm	
141.4	40142.4	AIN16-M01 Sensor 7 Open Alarm	
141.5	40142.5	AIN16-M01 Sensor 8 High Alarm	
141.6	40142.6	AIN16-M01 Sensor 8 Low Alarm	
141.7	40142.7	AIN16-M01 Sensor 8 Open Alarm	
141.8	40142.8	AIN16-M01 Sensor 9 High Alarm	
141.9	40142.9	AIN16-M01 Sensor 9 Low Alarm	
141.10	40142.10	AIN16-M01 Sensor 9 Open Alarm	
141.11	40142.11	AIN16-M01 Sensor 10 High Alarm	
141.12	40142.12	AIN16-M01 Sensor 10 Low Alarm	
141.13	40142.13	AIN16-M01 Sensor 10 Open Alarm	
141.14	40142.14	AIN16-M01 Sensor 11 High Alarm	
141.15	40142.15	AIN16-M01 Sensor 11 Low Alarm	
142.0	40143.0	AIN16-M01 Sensor 11 Open Alarm	
142.1	40143.1	AIN16-M01 Sensor 12 High Alarm	
142.2	40143.2	AIN16-M01 Sensor 12 Low Alarm	
142.3	40143.3	AIN16-M01 Sensor 12 Open Alarm	
142.4	40143.4	Difference Sensor 1 High Alarm	
142.5	40143.5	Difference Sensor 1 Low Alarm	
142.6	40143.6	/	
142.7	40143.7	Difference Sensor 2 High Alarm	
142.8	40143.8	Difference Sensor 2 Low Alarm	
142.9	40143.9	/	
142.10	40143.10	Difference Sensor 3 High Alarm	
142.11	40143.11	Difference Sensor 3 Low Alarm	
142.12	40143.12	/	

Modbus Address	PLC Address	Item	Description
142.13	40143.13	Difference Sensor 4 High Alarm	
142.14	40143.14	Difference Sensor 4 Low Alarm	
142.15	40143.15	/	
143	40144	/	
144	40145	/	
145	40146	/	
146	40147	/	
147	40148	/	
148	40149	/	
149	40150	/	
150	40151	/	
151	40152	/	
152.0	40153.0	Emergency Stop	
152.1	40153.1	Engine Over Speed	
152.2	40153.2	Loss of Speed Signal	
152.3	40153.3	Remote Emergency Stop	
152.4	40153.4	ECU Shutdown	
152.5	40153.5	ECU Comm. Failure Shutdown	
152.6	40153.6	High Water Temp. Shutdown Input	
152.7	40153.7	Low Oil Pressure Shutdown Input	
152.8	40153.8	Charging Failure Warning	
152.9	40153.9	Start Failure Warning	
152.10	40153.10	Stop Failure Warning	
152.11	40153.11	Power 1 Overvoltage Warning	
152.12	40153.12	Power 2 Overvoltage Warning	
152.13	40153.13	Power 1 Undervoltage Warning	
152.14	40153.14	Power 2 Undervoltage Warning	
152.15	40153.15	Power Fault	
153.0	40154.0	RPU560B Comm. Failure Warning	
153.1	40154.1	DIN16A Module 1 Comm. Failure	
153.2	40154.2	DIN16A Module 2 Comm. Failure	
153.3	40154.3	DOUT16B Module 1 Comm. Failure	
153.4	40154.4	DOUT16B Module 2 Comm. Failure	
153.5	40154.5	AIN8 Module 1 Comm. Failure Warning	
153.6	40154.6	AIN8 Module 2 Comm. Failure Warning	
153.7	40154.7	/	
153.8	40154.8	/	
153.9	40154.9	HMP300 Comm. Failure	
153.10	40154.10	AIN23 Module 1 Comm. Failure	
153.11	40154.11	AIN23 Module 2 Comm. Failure	
153.12	40154.12	MIO14 Comm. Failure	
153.13	40154.13	AIN16M01 Comm. Failure	
153.14	40154.14	/	

Modbus Address	PLC Address	Item	Description
153.15	40154.15	/	
154.0	40155.0	/	
154.1	40155.1	/	
154.2	40155.2	/	
154.3	40155.3	/	
154.4	40155.4	/	
154.5	40155.5	/	
154.6	40155.6	Speed Broken Wire Warning	
154.7	40155.7	Input 1 Broken Wire (RPU)	
154.8	40155.8	Input 2 Broken Wire (RPU)	
154.9	40155.9	Input 3 Broken Wire (RPU)	
154.10	40155.10	Input 4 Broken Wire (RPU)	
154.11	40155.11	Input 5 Broken Wire (RPU)	
154.12	40155.12	Fuel Output Broken Wire (RPU)	
154.13	40155.13	Stop Output Broken Wire (RPU)	
154.14	40155.14	Speed Broken Wire (RPU)	
154.15	40155.15	Emergency Stop Broken Wire Warning (RPU)	
155.0	40156.0	RPU Sensor 1 High Warning	
155.1	40156.1	RPU Sensor 1 Low Warning	
155.2	40156.2	RPU Sensor 1 Open	
155.3	40156.3	RPU Sensor 2 High Warning	
155.4	40156.4	RPU Sensor 2 Low Warning	
155.5	40156.5	RPU Sensor 2 Open	
155.6	40156.6	RPU Sensor 1 High Shutdown	
155.7	40156.7	RPU Sensor 1 Low Shutdown	
155.8	40156.8	RPU Sensor 2 High Shutdown	
155.9	40156.9	RPU Sensor 2 Low Shutdown	
155.10	40156.10	Input 1 Shutdown (RPU)	
155.11	40156.11	Input 2 Shutdown (RPU)	
155.12	40156.12	Input 3 Shutdown (RPU)	
155.13	40156.13	Input 4 Shutdown (RPU)	
155.14	40156.14	Input 5 Shutdown (RPU)	
155.15	40156.15	/	
156.0	40157.0	Emergency Stop (RPU)	
156.1	40157.1	Over Speed Shutdown (RPU)	
156.2	40157.2	/	
156.3	40157.3	/	
156.4	40157.4	/	
156.5	40157.5	/	
156.6	40157.6	/	
156.7	40157.7	/	
156.8	40157.8	/	
156.9	40157.9	/	

Modbus Address	PLC Address	Item	Description
156.10	40157.10	Low Gearbox Oil Pressure	
156.11	40157.11	Low Gearbox Working Oil Pressure	
156.12	40157.12	Exhaust Baffle Open Fault	
156.13	40157.13	Exhaust Baffle Close Fault	
156.14	40157.14	Louver Open Fault	
156.15	40157.15	Louver Close Fault	
157.0	40158.0	Overvoltage Trip Alarm	
157.1	40158.1	Undervoltage Trip Alarm	
157.2	40158.2	Loss of Phase Trip Alarm	
157.3	40158.3	Reverse Phase Sequence Trip Alarm	
157.4	40158.4	Overfrequency Trip Alarm	
157.5	40158.5	Underfrequency Trip Alarm	
157.6	40158.6	Overcurrent Trip Alarm	
157.7	40158.7	/	
157.8	40158.8	Over Power Trip Alarm	
157.9	40158.9	/	
157.10	40158.10	Reverse Power Trip Alarm	
157.11	40158.11	/	
157.12	40158.12	/	
157.13	40158.13	/	
157.14	40158.14	/	
157.15	40158.15	/	
158.0	40159.0	Overvoltage Warning	
158.1	40159.1	Undervoltage Warning	
158.2	40159.2	/	
158.3	40159.3	/	
158.4	40159.4	Overfrequency Warning	
158.5	40159.5	Underfrequency Warning	
158.6	40159.6	/	
158.7	40159.7	Overcurrent Warning	
158.8	40159.8	/	
158.9	40159.9	Over Power Warning	
158.10	40159.10	/	
158.11	40159.11	Reverse Power Warning	
158.12	40159.12	/	
158.13	40159.13	/	
158.14	40159.14	/	
158.15	40159.15	/	
159	40160	/	
160	40161	/	
161	40162	/	
162.0	40163.0	Sensor 1 High Warning	
162.1	40163.1	Sensor 1 Low Warning	

Modbus Address	PLC Address	Item	Description
162.2	40163.2	Sensor 1 Open Warning	
162.3	40163.3	Sensor 2 High Warning	
162.4	40163.4	Sensor 2 Low Warning	
162.5	40163.5	Sensor 2 Open Warning	
162.6	40163.6	Sensor 3 High Warning	
162.7	40163.7	Sensor 3 Low Warning	
162.8	40163.8	Sensor 3 Open Warning	
162.9	40163.9	Sensor 4 High Warning	
162.10	40163.10	Sensor 4 Low Warning	
162.11	40163.11	Sensor 4 Open Warning	
162.12	40163.12	Sensor 5 High Warning	
162.13	40163.13	Sensor 5 Low Warning	
162.14	40163.14	Sensor 5 Open Warning	
162.15	40163.15	Sensor 6 High Warning	
163.0	40164.0	Sensor 6 Low Warning	
163.1	40164.1	Sensor 6 Open Warning	
163.2	40164.2	Sensor 7 High Warning	
163.3	40164.3	Sensor 7 Low Warning	
163.4	40164.4	Sensor 7 Open Warning	
163.5	40164.5	Sensor 8 High Warning	
163.6	40164.6	Sensor 8 Low Warning	
163.7	40164.7	Sensor 8 Open Warning	
163.8	40164.8	Sensor 9 High Warning	
163.9	40164.9	Sensor 9 Low Warning	
163.10	40164.10	Sensor 9 Open Warning	
163.11	40164.11	Sensor 10 High Warning	
163.12	40164.12	Sensor 10 Low Warning	
163.13	40164.13	Sensor 10 Open Warning	
163.14	40164.14	/	
163.15	40164.15	/	
164.0	40165.0	Input 1 Warning	
164.1	40165.1	Input 2 Warning	
164.2	40165.2	Input 3 Warning	
164.3	40165.3	Input 4 Warning	
164.4	40165.4	Input 5 Warning	
164.5	40165.5	Input 6 Warning	
164.6	40165.6	Input 7 Warning	
164.7	40165.7	Input 8 Warning	
164.8	40165.8	Input 9 Warning	
164.9	40165.9	Input 10 Warning	
164.10	40165.10	Input 11 Warning	
164.11	40165.11	Input 12 Warning	
164.12	40165.12	Input 13 Warning	

Modbus Address	PLC Address	Item	Description
164.13	40165.13	Input 14 Warning	
164.14	40165.14	Input 15 Warning	
164.15	40165.15	Input 16 Warning	
165.0	40166.0	Input 17 Warning	
165.1	40166.1	Input 18 Warning	
165.2	40166.2	/	
165.3	40166.3	/	
165.4	40166.4	/	
165.5	40166.5	/	
165.6	40166.6	/	
165.7	40166.7	Average Value Sensor 1 High	
165.8	40166.8	Average Value Sensor 1 Low	
165.9	40166.9	/	
165.10	40166.10	Average Value Sensor 2 High	
165.11	40166.11	Average Value Sensor 2 Low	
165.12	40166.12	/	
165.13	40166.13	Average Value Sensor 3 High	
165.14	40166.14	Average Value Sensor 3 Low	
165.15	40166.15	/	
166.0	40167.0	AIN8 Sensor 1 High Warning (Module 1)	
166.1	40167.1	AIN8 Sensor 1 Low Warning (Module 1)	
166.2	40167.2	AIN8 Sensor 1 Open Warning (Module 1)	
166.3	40167.3	AIN8 Sensor 2 High Warning (Module 1)	
166.4	40167.4	AIN8 Sensor 2 Low Warning (Module 1)	
166.5	40167.5	AIN8 Sensor 2 Open Warning (Module 1)	
166.6	40167.6	AIN8 Sensor 3 High Warning (Module 1)	
166.7	40167.7	AIN8 Sensor 3 Low Warning (Module 1)	
166.8	40167.8	AIN8 Sensor 3 Open Warning (Module 1)	
166.9	40167.9	AIN8 Sensor 4 High Warning (Module 1)	
166.10	40167.10	AIN8 Sensor 4 Low Warning (Module 1)	
166.11	40167.11	AIN8 Sensor 4 Open Warning (Module 1)	
166.12	40167.12	AIN8 Sensor 5 High Warning (Module 1)	
166.13	40167.13	AIN8 Sensor 5 Low Warning (Module 1)	
166.14	40167.14	AIN8 Sensor 5 Open Warning (Module 1)	
166.15	40167.15	AIN8 Sensor 6 High Warning (Module 1)	
167.0	40168.0	AIN8 Sensor 6 Low Warning (Module 1)	
167.1	40168.1	AIN8 Sensor 6 Open Warning (Module 1)	
167.2	40168.2	AIN8 Sensor 7 High Warning (Module 1)	
167.3	40168.3	AIN8 Sensor 7 Low Warning (Module 1)	
167.4	40168.4	AIN8 Sensor 7 Open Warning (Module 1)	
167.5	40168.5	AIN8 Sensor 8 High Warning (Module 1)	
167.6	40168.6	AIN8 Sensor 8 Low Warning (Module 1)	
167.7	40168.7	AIN8 Sensor 8 Open Warning (Module 1)	

Modbus Address	PLC Address	Item	Description
167.8	40168.8	AIN8 Sensor 1 High Warning (Module 2)	
167.9	40168.9	AIN8 Sensor 1 Low Warning (Module 2)	
167.10	40168.10	AIN8 Sensor 1 Open Warning (Module 2)	
167.11	40168.11	AIN8 Sensor 2 High Warning (Module 2)	
167.12	40168.12	AIN8 Sensor 2 Low Warning (Module 2)	
167.13	40168.13	AIN8 Sensor 2 Open Warning (Module 2)	
167.14	40168.14	AIN8 Sensor 3 High Warning (Module 2)	
167.15	40168.15	AIN8 Sensor 3 Low Warning (Module 2)	
168.0	40169.0	AIN8 Sensor 3 Open Warning (Module 2)	
168.1	40169.1	AIN8 Sensor 4 High Warning (Module 2)	
168.2	40169.2	AIN8 Sensor 4 Low Warning (Module 2)	
168.3	40169.3	AIN8 Sensor 4 Open Warning (Module 2)	
168.4	40169.4	AIN8 Sensor 5 High Warning (Module 2)	
168.5	40169.5	AIN8 Sensor 5 Low Warning (Module 2)	
168.6	40169.6	AIN8 Sensor 5 Open Warning (Module 2)	
168.7	40169.7	AIN8 Sensor 6 High Warning (Module 2)	
168.8	40169.8	AIN8 Sensor 6 Low Warning (Module 2)	
168.9	40169.9	AIN8 Sensor 6 Open Warning (Module 2)	
168.10	40169.10	AIN8 Sensor 7 High Warning (Module 2)	
168.11	40169.11	AIN8 Sensor 7 Low Warning (Module 2)	
168.12	40169.12	AIN8 Sensor 7 Open Warning (Module 2)	
168.13	40169.13	AIN8 Sensor 8 High Warning (Module 2)	
168.14	40169.14	AIN8 Sensor 8 Low Warning (Module 2)	
168.15	40169.15	AIN8 Sensor 8 Open Warning (Module 2)	
169.0	40170.0	/	
169.1	40170.1	/	
169.2	40170.2	/	
169.3	40170.3	/	
169.4	40170.4	/	
169.5	40170.5	/	
169.6	40170.6	/	
169.7	40170.7	/	
169.8	40170.8	/	
169.9	40170.9	/	
169.10	40170.10	/	
169.11	40170.11	/	
169.12	40170.12	/	
169.13	40170.13	/	
169.14	40170.14	/	
169.15	40170.15	/	
170.0	40171.0	/	
170.1	40171.1	/	
170.2	40171.2	/	

Modbus Address	PLC Address	Item	Description
170.3	40171.3	/	
170.4	40171.4	/	
170.5	40171.5	/	
170.6	40171.6	/	
170.7	40171.7	/	
170.8	40171.8	/	
170.9	40171.9	/	
170.10	40171.10	/	
170.11	40171.11	/	
170.12	40171.12	/	
170.13	40171.13	/	
170.14	40171.14	/	
170.15	40171.15	/	
171.0	40172.0	/	
171.1	40172.1	/	
171.2	40172.2	/	
171.3	40172.3	/	
171.4	40172.4	/	
171.5	40172.5	/	
171.6	40172.6	/	
171.7	40172.7	/	
171.8	40172.8	/	
171.9	40172.9	/	
171.10	40172.10	/	
171.11	40172.11	/	
171.12	40172.12	/	
171.13	40172.13	/	
171.14	40172.14	/	
171.15	40172.15	/	
172.0	40173.0	Input 1 Warning (Expansion 1)	
172.1	40173.1	Input 2 Warning (Expansion 1)	
172.2	40173.2	Input 3 Warning (Expansion 1)	
172.3	40173.3	Input 4 Warning (Expansion 1)	
172.4	40173.4	Input 5 Warning (Expansion 1)	
172.5	40173.5	Input 6 Warning (Expansion 1)	
172.6	40173.6	Input 7 Warning (Expansion 1)	
172.7	40173.7	Input 8 Warning (Expansion 1)	
172.8	40173.8	Input 9 Warning (Expansion 1)	
172.9	40173.9	Input 10 Warning (Expansion 1)	
172.10	40173.10	Input 11 Warning (Expansion 1)	
172.11	40173.11	Input 12 Warning (Expansion 1)	
172.12	40173.12	Input 13 Warning (Expansion 1)	
172.13	40173.13	Input 14 Warning (Expansion 1)	

Modbus Address	PLC Address	Item	Description
172.14	40173.14	Input 15 Warning (Expansion 1)	
172.15	40173.15	Input 16 Warning (Expansion 1)	
173	40174	Input Warning (Expansion 2)	
174	40175	PLC 1-16 Warning	
175.0	40176.0	PLC 17 Warning	
175.1	40176.1	PLC 18 Warning	
175.2	40176.2	PLC 19 Warning	
175.3	40176.3	PLC 20 Warning	
175.4	40176.4	/	
175.5	40176.5	/	
175.6	40176.6	/	
175.7	40176.7	/	
175.8	40176.8	/	
175.9	40176.9	/	
175.10	40176.10	/	
175.11	40176.11	/	
175.12	40176.12	/	
175.13	40176.13	/	
175.14	40176.14	/	
175.15	40176.15	/	
176.0	40177.0	ECU Custom Sensor 1 High Warning	
176.1	40177.1	ECU Custom Sensor 1 Low Warning	
176.2	40177.2	/	
176.3	40177.3	ECU Custom Sensor 2 High Warning	
176.4	40177.4	ECU Custom Sensor 2 Low Warning	
176.5	40177.5	/	
176.6	40177.6	ECU Custom Sensor 3 High Warning	
176.7	40177.7	ECU Custom Sensor 3 Low Warning	
176.8	40177.8	/	
176.9	40177.9	ECU Custom Sensor 4 High Warning	
176.10	40177.10	ECU Custom Sensor 4 Low Warning	
176.11	40177.11	/	
176.12	40177.12	ECU Custom Sensor 5 High Warning	
176.13	40177.13	ECU Custom Sensor 5 Low Warning	
176.14	40177.14	/	
176.15	40177.15	ECU Custom Sensor 6 High Warning	
177.0	40178.0	ECU Custom Sensor 6 Low Warning	
177.1	40178.1	/	
177.2	40178.2	ECU Custom Sensor 7 High Warning	
177.3	40178.3	ECU Custom Sensor 7 Low Warning	
177.4	40178.4	/	
177.5	40178.5	ECU Custom Sensor 8 High Warning	
177.6	40178.6	ECU Custom Sensor 8 Low Warning	

Modbus Address	PLC Address	Item	Description
177.7	40178.7	/	
177.8	40178.8	ECU Custom Sensor 9 High Warning	
177.9	40178.9	ECU Custom Sensor 9 Low Warning	
177.10	40178.10	/	
177.11	40178.11	ECU Custom Sensor 10 High Warning	
177.12	40178.12	ECU Custom Sensor 10 Low Warning	
177.13	40178.13	/	
177.14	40178.14	ECU Custom Sensor 11 High Warning	
177.15	40178.15	ECU Custom Sensor 11 Low Warning	
178.0	40179.0	/	
178.1	40179.1	ECU Custom Sensor 12 High Warning	
178.2	40179.2	ECU Custom Sensor 12 Low Warning	
178.3	40179.3	/	
178.4	40179.4	ECU Custom Sensor 13 High Warning	
178.5	40179.5	ECU Custom Sensor 13 Low Warning	
178.6	40179.6	/	
178.7	40179.7	ECU Custom Sensor 14 High Warning	
178.8	40179.8	ECU Custom Sensor 14 Low Warning	
178.9	40179.9	/	
178.10	40179.10	ECU Custom Sensor 15 High Warning	
178.11	40179.11	ECU Custom Sensor 15 Low Warning	
178.12	40179.12	/	
178.13	40179.13	ECU Custom Sensor 16 High Warning	
178.14	40179.14	ECU Custom Sensor 16 Low Warning	
178.15	40179.15	/	
179.0	40180.0	ECU Custom Sensor 17 High Warning	
179.1	40180.1	ECU Custom Sensor 17 Low Warning	
179.2	40180.2	/	
179.3	40180.3	ECU Custom Sensor 18 High Warning	
179.4	40180.4	ECU Custom Sensor 18 Low Warning	
179.5	40180.5	/	
179.6	40180.6	ECU Custom Sensor 19 High Warning	
179.7	40180.7	ECU Custom Sensor 19 Low Warning	
179.8	40180.8	/	
179.9	40180.9	ECU Custom Sensor 20 High Warning	
179.10	40180.10	ECU Custom Sensor 20 Low Warning	
179.11	40180.11	/	
179.12	40180.12	/	
179.13	40180.13	/	
179.14	40180.14	/	
179.15	40180.15	/	
180.0	40181.0	AIN23 Sensor 1 High Warning	
180.1	40181.1	AIN23 Sensor 1 Low Warning	

Modbus Address	PLC Address	Item	Description
180.2	40181.2	AIN23 Sensor 1 Open Warning	
180.3	40181.3	AIN23 Sensor 2 High Warning	
180.4	40181.4	AIN23 Sensor 2 Low Warning	
180.5	40181.5	AIN23 Sensor 2 Open Warning	
180.6	40181.6	AIN23 Sensor 3 High Warning	
180.7	40181.7	AIN23 Sensor 3 Low Warning	
180.8	40181.8	AIN23 Sensor 3 Open Warning	
180.9	40181.9	AIN23 Sensor 4 High Warning	
180.10	40181.10	AIN23 Sensor 4 Low Warning	
180.11	40181.11	AIN23 Sensor 4 Open Warning	
180.12	40181.12	AIN23 Sensor 5 High Warning	
180.13	40181.13	AIN23 Sensor 5 Low Warning	
180.14	40181.14	AIN23 Sensor 5 Open Warning	
180.15	40181.15	AIN23 Sensor 6 High Warning	
181.0	40182.0	AIN23 Sensor 6 Low Warning	
181.1	40182.1	AIN23 Sensor 6 Open Warning	
181.2	40182.2	AIN23 Sensor 7 High Warning	
181.3	40182.3	AIN23 Sensor 7 Low Warning	
181.4	40182.4	AIN23 Sensor 7 Open Warning	
181.5	40182.5	AIN23 Sensor 8 High Warning	
181.6	40182.6	AIN23 Sensor 8 Low Warning	
181.7	40182.7	AIN23 Sensor 8 Open Warning	
181.8	40182.8	AIN23 Sensor 9 High Warning	
181.9	40182.9	AIN23 Sensor 9 Low Warning	
181.10	40182.10	AIN23 Sensor 9 Open Warning	
181.11	40182.11	AIN23 Sensor 10 High Warning	
181.12	40182.12	AIN23 Sensor 10 Low Warning	
181.13	40182.13	AIN23 Sensor 10 Open Warning	
181.14	40182.14	AIN23 Sensor 11 High Warning	
181.15	40182.15	AIN23 Sensor 11 Low Warning	
182.0	40183.0	AIN23 Sensor 11 Open Warning	
182.1	40183.1	AIN23 Sensor 12 High Warning	
182.2	40183.2	AIN23 Sensor 12 Low Warning	
182.3	40183.3	AIN23 Sensor 12 Open Warning	
182.4	40183.4	AIN23 Sensor 13 High Warning	
182.5	40183.5	AIN23 Sensor 13 Low Warning	
182.6	40183.6	AIN23 Sensor 13 Open Warning	
182.7	40183.7	AIN23 Sensor 14 High Warning	
182.8	40183.8	AIN23 Sensor 14 Low Warning	
182.9	40183.9	AIN23 Sensor 14 Open Warning	
182.10	40183.10	AIN23 Sensor 15 High Warning	
182.11	40183.11	AIN23 Sensor 15 Low Warning	
182.12	40183.12	AIN23 Sensor 15 Open Warning	

Modbus Address	PLC Address	Item	Description
182.13	40183.13	AIN23 Sensor 16 High Warning	
182.14	40183.14	AIN23 Sensor 16 Low Warning	
182.15	40183.15	AIN23 Sensor 16 Open Warning	
183.0	40184.0	AIN23 Sensor 17 High Warning	
183.1	40184.1	AIN23 Sensor 17 Low Warning	
183.2	40184.2	AIN23 Sensor 17 Open Warning	
183.3	40184.3	AIN23 Sensor 18 High Warning	
183.4	40184.4	AIN23 Sensor 18 Low Warning	
183.5	40184.5	AIN23 Sensor 18 Open Warning	
183.6	40184.6	AIN23 Sensor 19 High Warning	
183.7	40184.7	AIN23 Sensor 19 Low Warning	
183.8	40184.8	AIN23 Sensor 19 Open Warning	
183.9	40184.9	AIN23 Sensor 20 High Warning	
183.10	40184.10	AIN23 Sensor 20 Low Warning	
183.11	40184.11	AIN23 Sensor 20 Open Warning	
183.12	40184.12	AIN23 Sensor 21 High Warning	
183.13	40184.13	AIN23 Sensor 21 Low Warning	
183.14	40184.14	AIN23 Sensor 21 Open Warning	
183.15	40184.15	AIN23 Sensor 22 High Warning	
184.0	40185.0	AIN23 Sensor 22 Low Warning	
184.1	40185.1	AIN23 Sensor 22 Open Warning	
184.2	40185.2	AIN23 Sensor 23 High Warning	
184.3	40185.3	AIN23 Sensor 23 Low Warning	
184.4	40185.4	AIN23 Sensor 23 Open Warning	
184.5	40185.5	/	
184.6	40185.6	/	
184.7	40185.7	/	
184.8	40185.8	/	
184.9	40185.9	/	
184.10	40185.10	/	
184.11	40185.11	/	
184.12	40185.12	/	
184.13	40185.13	/	
184.14	40185.14	/	
184.15	40185.15	/	
185.0	40186.0	AIN23 Sensor 1 High Warning (Module 2)	
185.1	40186.1	AIN23 Sensor 1 Low Warning (Module 2)	
185.2	40186.2	AIN23 Sensor 1 Open Warning (Module 2)	
185.3	40186.3	AIN23 Sensor 2 High Warning (Module 2)	
185.4	40186.4	AIN23 Sensor 2 Low Warning (Module 2)	
185.5	40186.5	AIN23 Sensor 2 Open Warning (Module 2)	
185.6	40186.6	AIN23 Sensor 3 High Warning (Module 2)	
185.7	40186.7	AIN23 Sensor 3 Low Warning (Module 2)	

Modbus Address	PLC Address	Item	Description
185.8	40186.8	AIN23 Sensor 3 Open Warning (Module 2)	
185.9	40186.9	AIN23 Sensor 4 High Warning (Module 2)	
185.10	40186.10	AIN23 Sensor 4 Low Warning (Module 2)	
185.11	40186.11	AIN23 Sensor 4 Open Warning (Module 2)	
185.12	40186.12	AIN23 Sensor 5 High Warning (Module 2)	
185.13	40186.13	AIN23 Sensor 5 Low Warning (Module 2)	
185.14	40186.14	AIN23 Sensor 5 Open Warning (Module 2)	
185.15	40186.15	AIN23 Sensor 6 High Warning (Module 2)	
186.0	40187.0	AIN23 Sensor 6 Low Warning (Module 2)	
186.1	40187.1	AIN23 Sensor 6 Open Warning (Module 2)	
186.2	40187.2	AIN23 Sensor 7 High Warning (Module 2)	
186.3	40187.3	AIN23 Sensor 7 Low Warning (Module 2)	
186.4	40187.4	AIN23 Sensor 7 Open Warning (Module 2)	
186.5	40187.5	AIN23 Sensor 8 High Warning (Module 2)	
186.6	40187.6	AIN23 Sensor 8 Low Warning (Module 2)	
186.7	40187.7	AIN23 Sensor 8 Open Warning (Module 2)	
186.8	40187.8	AIN23 Sensor 9 High Warning (Module 2)	
186.9	40187.9	AIN23 Sensor 9 Low Warning (Module 2)	
186.10	40187.10	AIN23 Sensor 9 Open Warning (Module 2)	
186.11	40187.11	AIN23 Sensor 10 High Warning (Module 2)	
186.12	40187.12	AIN23 Sensor 10 Low Warning (Module 2)	
186.13	40187.13	AIN23 Sensor 10 Open Warning (Module 2)	
186.14	40187.14	AIN23 Sensor 11 High Warning (Module 2)	
186.15	40187.15	AIN23 Sensor 11 Low Warning (Module 2)	
187.0	40188.0	AIN23 Sensor 11 Open Warning (Module 2)	
187.1	40188.1	AIN23 Sensor 12 High Warning (Module 2)	
187.2	40188.2	AIN23 Sensor 12 Low Warning (Module 2)	
187.3	40188.3	AIN23 Sensor 12 Open Warning (Module 2)	
187.4	40188.4	AIN23 Sensor 13 High Warning (Module 2)	
187.5	40188.5	AIN23 Sensor 13 Low Warning (Module 2)	
187.6	40188.6	AIN23 Sensor 13 Open Warning (Module 2)	
187.7	40188.7	AIN23 Sensor 14 High Warning (Module 2)	
187.8	40188.8	AIN23 Sensor 14 Low Warning (Module 2)	
187.9	40188.9	AIN23 Sensor 14 Open Warning (Module 2)	
187.10	40188.10	AIN23 Sensor 15 High Warning (Module 2)	
187.11	40188.11	AIN23 Sensor 15 Low Warning (Module 2)	
187.12	40188.12	AIN23 Sensor 15 Open Warning (Module 2)	
187.13	40188.13	AIN23 Sensor 16 High Warning (Module 2)	
187.14	40188.14	AIN23 Sensor 16 Low Warning (Module 2)	
187.15	40188.15	AIN23 Sensor 16 Open Warning (Module 2)	
188.0	40189.0	AIN23 Sensor 17 High Warning (Module 2)	
188.1	40189.1	AIN23 Sensor 17 Low Warning (Module 2)	
188.2	40189.2	AIN23 Sensor 17 Open Warning (Module 2)	

Modbus Address	PLC Address	Item	Description
188.3	40189.3	AIN23 Sensor 18 High Warning (Module 2)	
188.4	40189.4	AIN23 Sensor 18 Low Warning (Module 2)	
188.5	40189.5	AIN23 Sensor 18 Open Warning (Module 2)	
188.6	40189.6	AIN23 Sensor 19 High Warning (Module 2)	
188.7	40189.7	AIN23 Sensor 19 Low Warning (Module 2)	
188.8	40189.8	AIN23 Sensor 19 Open Warning (Module 2)	
188.9	40189.9	AIN23 Sensor 20 High Warning (Module 2)	
188.10	40189.10	AIN23 Sensor 20 Low Warning (Module 2)	
188.11	40189.11	AIN23 Sensor 20 Open Warning (Module 2)	
188.12	40189.12	AIN23 Sensor 21 High Warning (Module 2)	
188.13	40189.13	AIN23 Sensor 21 Low Warning (Module 2)	
188.14	40189.14	AIN23 Sensor 21 Open Warning (Module 2)	
188.15	40189.15	AIN23 Sensor 22 High Warning (Module 2)	
189.0	40190.0	AIN23 Sensor 22 Low Warning (Module 2)	
189.1	40190.1	AIN23 Sensor 22 Open Warning (Module 2)	
189.2	40190.2	AIN23 Sensor 23 High Warning (Module 2)	
189.3	40190.3	AIN23 Sensor 23 Low Warning (Module 2)	
189.4	40190.4	AIN23 Sensor 23 Open Warning (Module 2)	
189.5	40190.5	/	
189.6	40190.6	/	
189.7	40190.7	/	
189.8	40190.8	/	
189.9	40190.9	/	
189.10	40190.10	/	
189.11	40190.11	/	
189.12	40190.12	/	
189.13	40190.13	/	
189.14	40190.14	/	
189.15	40190.15	/	
190.0	40191.0	AIN16-M01 Sensor 1 High Warning	
190.1	40191.1	AIN16-M01 Sensor 1 Low Warning	
190.2	40191.2	AIN16-M01 Sensor 1 Open Warning	
190.3	40191.3	AIN16-M01 Sensor 2 High Warning	
190.4	40191.4	AIN16-M01 Sensor 2 Low Warning	
190.5	40191.5	AIN16-M01 Sensor 2 Open Warning	
190.6	40191.6	AIN16-M01 Sensor 3 High Warning	
190.7	40191.7	AIN16-M01 Sensor 3 Low Warning	
190.8	40191.8	AIN16-M01 Sensor 3 Open Warning	
190.9	40191.9	AIN16-M01 Sensor 4 High Warning	
190.10	40191.10	AIN16-M01 Sensor 4 Low Warning	
190.11	40191.11	AIN16-M01 Sensor 4 Open Warning	
190.12	40191.12	AIN16-M01 Sensor 5 High Warning	
190.13	40191.13	AIN16-M01 Sensor 5 Low Warning	

Modbus Address	PLC Address	Item	Description
190.14	40191.14	AIN16-M01 Sensor 5 Open Warning	
190.15	40191.15	AIN16-M01 Sensor 6 High Warning	
191.0	40192.0	AIN16-M01 Sensor 6 Low Warning	
191.1	40192.1	AIN16-M01 Sensor 6 Open Warning	
191.2	40192.2	AIN16-M01 Sensor 7 High Warning	
191.3	40192.3	AIN16-M01 Sensor 7 Low Warning	
191.4	40192.4	AIN16-M01 Sensor 7 Open Warning	
191.5	40192.5	AIN16-M01 Sensor 8 High Warning	
191.6	40192.6	AIN16-M01 Sensor 8 Low Warning	
191.7	40192.7	AIN16-M01 Sensor 8 Open Warning	
191.8	40192.8	AIN16-M01 Sensor 9 High Warning	
191.9	40192.9	AIN16-M01 Sensor 9 Low Warning	
191.10	40192.10	AIN16-M01 Sensor 9 Open Warning	
191.11	40192.11	AIN16-M01 Sensor 10 High Warning	
191.12	40192.12	AIN16-M01 Sensor 10 Low Warning	
191.13	40192.13	AIN16-M01 Sensor 10 Open Warning	
191.14	40192.14	AIN16-M01 Sensor 11 High Warning	
191.15	40192.15	AIN16-M01 Sensor 11 Low Warning	
192.0	40193.0	AIN16-M01 Sensor 11 Open Warning	
192.1	40193.1	AIN16-M01 Sensor 12 High Warning	
192.2	40193.2	AIN16-M01 Sensor 12 Low Warning	
192.3	40193.3	AIN16-M01 Sensor 12 Open Warning	
192.4	40193.4	Difference Sensor 1 High Warning	
192.5	40193.5	Difference Sensor 1 Low Warning	
192.6	40193.6	/	
192.7	40193.7	Difference Sensor 2 High Warning	
192.8	40193.8	Difference Sensor 2 Low Warning	
192.9	40193.9	/	
192.10	40193.10	Difference Sensor 3 High Warning	
192.11	40193.11	Difference Sensor 3 Low Warning	
192.12	40193.12	/	
192.13	40193.13	Difference Sensor 4 High Warning	
192.14	40193.14	Difference Sensor 4 Low Warning	
192.15	40193.15	/	
193.0	40194.0	ECU SPN1 Alarm (Name can be defined)	
193.1	40194.1	ECU SPN2 Alarm (Name can be defined)	
193.2	40194.2	ECU SPN3 Alarm (Name can be defined)	
193.3	40194.3	ECU SPN4 Alarm (Name can be defined)	
193.4	40194.4	ECU SPN5 Alarm (Name can be defined)	
193.5	40194.5	ECU SPN6 Alarm (Name can be defined)	
193.6	40194.6	ECU SPN7 Alarm (Name can be defined)	
193.7	40194.7	ECU SPN8 Alarm (Name can be defined)	
193.8	40194.8	ECU SPN9 Alarm (Name can be defined)	

Modbus Address	PLC Address	Item	Description
193.9	40194.9	ECU SPN10 Alarm (Name can be defined)	
193.10	40194.10	ECU SPN11 Alarm (Name can be defined)	
193.11	40194.11	ECU SPN12 Alarm (Name can be defined)	
193.12	40194.12	ECU SPN13 Alarm (Name can be defined)	
193.13	40194.13	ECU SPN14 Alarm (Name can be defined)	
193.14	40194.14	ECU SPN15 Alarm (Name can be defined)	
193.15	40194.15	ECU SPN16 Alarm (Name can be defined)	
194.0	40195.0	ECU SPN17 Alarm (Name can be defined)	
194.1	40195.1	ECU SPN18 Alarm (Name can be defined)	
194.2	40195.2	ECU SPN19 Alarm (Name can be defined)	
194.3	40195.3	ECU SPN20 Alarm (Name can be defined)	
194.4	40195.4	ECU SPN21 Alarm (Name can be defined)	
194.5	40195.5	ECU SPN22 Alarm (Name can be defined)	
194.6	40195.6	ECU SPN23 Alarm (Name can be defined)	
194.7	40195.7	ECU SPN24 Alarm (Name can be defined)	
194.8	40195.8	ECU SPN25 Alarm (Name can be defined)	
194.9	40195.9	ECU SPN26 Alarm (Name can be defined)	
194.10	40195.10	ECU SPN27 Alarm (Name can be defined)	
194.11	40195.11	ECU SPN28 Alarm (Name can be defined)	
194.12	40195.12	ECU SPN29 Alarm (Name can be defined)	
194.13	40195.13	ECU SPN30 Alarm (Name can be defined)	
194.14	40195.14	ECU SPN31 Alarm (Name can be defined)	
194.15	40195.15	ECU SPN32 Alarm (Name can be defined)	
195.0	40196.0	ECU SPN33 Alarm (Name can be defined)	
195.1	40196.1	ECU SPN34 Alarm (Name can be defined)	
195.2	40196.2	ECU SPN35 Alarm (Name can be defined)	
195.3	40196.3	ECU SPN36 Alarm (Name can be defined)	
195.4	40196.4	ECU SPN37 Alarm (Name can be defined)	
195.5	40196.5	ECU SPN38 Alarm (Name can be defined)	
195.6	40196.6	ECU SPN39 Alarm (Name can be defined)	
195.7	40196.7	ECU SPN40 Alarm (Name can be defined)	
195.8	40196.8	/	
195.9	40196.9	/	
195.10	40196.10	/	
195.11	40196.11	/	
195.12	40196.12	/	
195.13	40196.13	/	
195.14	40196.14	/	
195.15	40196.15	/	
196.0	40197.0	MIO14 Input 1 Warning	
196.1	40197.1	MIO14 Input 2 Warning	
196.2	40197.2	MIO14 Input 3 Warning	
196.3	40197.3	MIO14 Input 4 Warning	

Modbus Address	PLC Address	Item	Description
196.4	40197.4	MIO14 Input 5 Warning	
196.5	40197.5	MIO14 Input 6 Warning	
196.6	40197.6	MIO14 Sensor 1 High Warning	
196.7	40197.7	MIO14 Sensor 1 Low Warning	
196.8	40197.8	MIO14 Sensor 1 Open	
196.9	40197.9	MIO14 Sensor 2 High Warning	
196.10	40197.10	MIO14 Sensor 2 Low Warning	
196.11	40197.11	MIO14 Sensor 2 Open	
196.12	40197.12	MIO14 Over Speed Alarm 1	
196.13	40197.13	MIO14 Under Speed Alarm 1	
196.14	40197.14	/	
196.15	40197.15	MIO14 Over Speed Alarm 2	
197.0	40198.0	MIO14 Under Speed Alarm 2	
197.1	40198.1	/	
197.2	40198.2	/	
197.3	40198.3	/	
197.4	40198.4	/	
197.5	40198.5	/	
197.6	40198.6	/	
197.7	40198.7	/	
197.8	40198.8	/	
197.9	40198.9	/	
197.10	40198.10	/	
197.11	40198.11	/	
197.12	40198.12	/	
197.13	40198.13	/	
197.14	40198.14	/	
197.15	40198.15	/	
198	40199	/	
199	40200	/	
200	40201	/	
201	40202	/	
202	40203	/	
203	40204	/	
204	40205	/	
205	40206	/	
206	40207	/	
207.0	40208.0	Input 1 Indication	
207.1	40208.1	Input 2 Indication	
207.2	40208.2	Input 3 Indication	
207.3	40208.3	Input 4 Indication	
207.4	40208.4	Input 5 Indication	
207.5	40208.5	Input 6 Indication	

Modbus Address	PLC Address	Item	Description
207.6	40208.6	Input 7 Indication	
207.7	40208.7	Input 8 Indication	
207.8	40208.8	Input 9 Indication	
207.9	40208.9	Input 10 Indication	
207.10	40208.10	Input 11 Indication	
207.11	40208.11	Input 12 Indication	
207.12	40208.12	Input 13 Indication	
207.13	40208.13	Input 14 Indication	
207.14	40208.14	Input 15 Indication	
207.15	40208.15	Input 16 Indication	
208.0	40209.0	Input 17 Indication	
208.1	40209.1	Input 18 Indication	
208.2	40209.2	/	
208.3	40209.3	/	
208.4	40209.4	/	
208.5	40209.5	/	
208.6	40209.6	/	
208.7	40209.7	/	
208.8	40209.8	/	
208.9	40209.9	/	
208.10	40209.10	/	
208.11	40209.11	/	
208.12	40209.12	/	
208.13	40209.13	/	
208.14	40209.14	/	
208.15	40209.15	/	
209.0	40210.0	Input 1 Indication (Expansion)	
209.1	40210.1	Input 2 Indication (Expansion)	
209.2	40210.2	Input 3 Indication (Expansion)	
209.3	40210.3	Input 4 Indication (Expansion)	
209.4	40210.4	Input 5 Indication (Expansion)	
209.5	40210.5	Input 6 Indication (Expansion)	
209.6	40210.6	Input 7 Indication (Expansion)	
209.7	40210.7	Input 8 Indication (Expansion)	
209.8	40210.8	Input 9 Indication (Expansion)	
209.9	40210.9	Input 10 Indication (Expansion)	
209.10	40210.10	Input 11 Indication (Expansion)	
209.11	40210.11	Input 12 Indication (Expansion)	
209.12	40210.12	Input 13 Indication (Expansion)	
209.13	40210.13	Input 14 Indication (Expansion)	
209.14	40210.14	Input 15 Indication (Expansion)	
209.15	40210.15	Input 16 Indication (Expansion)	
210	40211	Input Indication (Expansion 2)	

Modbus Address	PLC Address	Item	Description
211.0	40212.0	PLC Function 1 Indication	
211.1	40212.1	PLC Function 2 Indication	
211.2	40212.2	PLC Function 3 Indication	
211.3	40212.3	PLC Function 4 Indication	
211.4	40212.4	PLC Function 5 Indication	
211.5	40212.5	PLC Function 6 Indication	
211.6	40212.6	PLC Function 7 Indication	
211.7	40212.7	PLC Function 8 Indication	
211.8	40212.8	PLC Function 9 Indication	
211.9	40212.9	PLC Function 10 Indication	
211.10	40212.10	PLC Function 11 Indication	
211.11	40212.11	PLC Function 12 Indication	
211.12	40212.12	PLC Function 13 Indication	
211.13	40212.13	PLC Function 14 Indication	
211.14	40212.14	PLC Function 15 Indication	
211.15	40212.15	PLC Function 16 Indication	
212.0	40213.0	PLC Function 17 Indication	
212.1	40213.1	PLC Function 18 Indication	
212.2	40213.2	PLC Function 19 Indication	
212.3	40213.3	PLC Function 20 Indication	
212.4	40213.4	/	
212.5	40213.5	/	
212.6	40213.6	/	
212.7	40213.7	/	
212.8	40213.8	/	
212.9	40213.9	/	
212.10	40213.10	/	
212.11	40213.11	/	
212.12	40213.12	/	
212.13	40213.13	/	
212.14	40213.14	/	
212.15	40213.15	/	
213	40214	/	
214.0	40215.0	Input 1 Active	
214.1	40215.1	Input 2 Active	
214.2	40215.2	Input 3 Active	
214.3	40215.3	Input 4 Active	
214.4	40215.4	Input 5 Active	
214.5	40215.5	Input 6 Active	
214.6	40215.6	Input 7 Active	
214.7	40215.7	Input 8 Active	
214.8	40215.8	Input 9 Active	
214.9	40215.9	Input 10 Active	

Modbus Address	PLC Address	Item	Description
214.10	40215.10	Input 11 Active	
214.11	40215.11	Input 12 Active	
214.12	40215.12	Input 13 Active	
214.13	40215.13	Input 14 Active	
214.14	40215.14	Input 15 Active	
214.15	40215.15	Input 16 Active	
215.0	40216.0	Input 17 Active	
215.1	40216.1	Input 18 Active	
215.2	40216.2	/	
215.3	40216.3	/	
215.4	40216.4	/	
215.5	40216.5	/	
215.6	40216.6	/	
215.7	40216.7	/	
215.8	40216.8	/	
215.9	40216.9	/	
215.10	40216.10	/	
215.11	40216.11	/	
215.12	40216.12	/	
215.13	40216.13	/	
215.14	40216.14	/	
215.15	40216.15	/	
216.0	40217.0	Input 1 Active (Expansion)	
216.1	40217.1	Input 2 Active (Expansion)	
216.2	40217.2	Input 3 Active (Expansion)	
216.3	40217.3	Input 4 Active (Expansion)	
216.4	40217.4	Input 5 Active (Expansion)	
216.5	40217.5	Input 6 Active (Expansion)	
216.6	40217.6	Input 7 Active (Expansion)	
216.7	40217.7	Input 8 Active (Expansion)	
216.8	40217.8	Input 9 Active (Expansion)	
216.9	40217.9	Input 10 Active (Expansion)	
216.10	40217.10	Input 11 Active (Expansion)	
216.11	40217.11	Input 12 Active (Expansion)	
216.12	40217.12	Input 13 Active (Expansion)	
216.13	40217.13	Input 14 Active (Expansion)	
216.14	40217.14	Input 15 Active (Expansion)	
216.15	40217.15	Input 16 Active (Expansion)	
217	40218	Input 16 Active (Expansion 2)	
218	40219	/	

EXAMPLE:

If "Sensor 6 Open Alarm" and "Input 6 Alarm" need to be read, check the table above and find their Modbus addresses are 113.1 and 114.5, so it needs to read two data addresses.

Assuming the slave (controller) address is 01, the master/host (could be PC) request command is as following:

Table 3 Master (PC) Request Frame

Slave Address	Function Code	Start Address (113)		Request Data Length (2)		CRC 16	
		MSB	LSB	MSB	LSB	LSB	MSB
01	03	00	71	00	02	94	10

The slave response is as following:

Table 4 Slave (Controller) Response Frame

Slave Address	Function Code	Data Length (Bytes)	Data				CRC 16	
			Data of Address 113 MSB	Data of Address 113 LSB	Data of Address 114 MSB	Data of Address 114 LSB	LSB	MSB
01	03	04	00	02	00	20	5A	2B

Table 5 Data Analysis

Address	Data Received (Hex)	Convert to Binary	Meaning
113	0002H	0000 0000 0000 0010 (Mapping to 113.15, 113.14,, 113.1, 113.0 respectively)	Data of Bit 1 is 1, which means the status of Sensor 6 Open Alarm is active.
114	0020H	0000 0000 0010 0000 (Mapping to 114.15, 114.14,, 114.1, 114.0 respectively)	Data of 114.5 is 1, which means status of "Input 6 Alarm" is active.

3.2 FUNCTION CODE 03H MAPPING PARAMETERS OF DATA FIELD

Table 6 Parameters of Data Field

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
300	40301	Input 1 Status					Bit0
		Input 2 Status					Bit1
		Input 3 Status					Bit2
		Input 4 Status					Bit3
		Input 5 Status					Bit4
		Input 6 Status					Bit5
		Input 7 Status					Bit6
		Input 8 Status					Bit7
		Input 9 Status					Bit8
		Input 10 Status					Bit9
		Input 11 Status					Bit10
		Input 12 Status					Bit11
		Input 13 Status					Bit12
		Input 14 Status					Bit13
		Input 15 Status					Bit14
		Input 16 Status					Bit15
301	40302	Input 17 Status					Bit0
		Input 18 Status					Bit1
		Fault Shutdown					Bit2
		/					Bit3
		Exhaust Baffle Status					Bit4
		/					Bit5
		/					Bit6
		/					Bit7
		Common Warning LED Status					Bit8
		Common Shutdown LED Status					Bit9
		Over Speed Warning LED Status					Bit10
		Over Speed Shutdown LED Status					Bit11
		High Water Temp. Warning LED Status					Bit12
		High Water Temp. Shutdown LED Status					Bit13
Low Oil Pressure Warning LED Status					Bit14		
Low Oil Pressure Shutdown LED Status					Bit15		

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
302	40303	Output 1 Status					Bit0
		Output 2 Status					Bit1
		Output 3 Status					Bit2
		Output 4 Status					Bit3
		Output 5 Status					Bit4
		Output 6 Status					Bit5
		Output 7 Status					Bit6
		Output 8 Status					Bit7
		Output 9 Status					Bit8
		Output 10 Status					Bit9
		Output 11 Status					Bit10
		Output 12 Status					Bit11
		Output 13 Status					Bit12
		Output 14 Status					Bit13
		Fuel Output Status					Bit14
Start Output Status					Bit15		
303	40304	PLC Flg1					Bit0
		PLC Flg2					Bit1
		PLC Flg3					Bit2
		PLC Flg4					Bit3
		PLC Flg5					Bit4
		PLC Flg6					Bit5
		PLC Flg7					Bit6
		PLC Flg8					Bit7
		PLC Flg9					Bit8
		PLC Flg10					Bit9
		PLC Flg11					Bit10
		PLC Flg12					Bit11
		PLC Flg13					Bit12
		PLC Flg14					Bit13
		PLC Flg15					Bit14
		PLC Flg16					Bit15
304	40305	PLC Flg17					Bit0
		PLC Flg18					Bit1
		PLC Flg19					Bit2
		PLC Flg20					Bit3
		/					Bit4
		/					Bit5
		/					Bit6
		/					Bit7
		/					Bit8
		/					Bit9
		/					Bit10

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		/					Bit11
		/					Bit12
		/					Bit13
		/					Bit14
		/					Bit15
305	40306	/					2Bytes
306	40307	Speed					2Bytes
307	40308	Sensor 1 Data	-32768~+32767			16-bit Signed	2Bytes
308	40309	Sensor 2 Data	-32768~+32767			16-bit Signed	2Bytes
309	40310	Sensor 3 Data	-32768~+32767			16-bit Signed	2Bytes
310	40311	Sensor 4 Data	-32768~+32767			16-bit Signed	2Bytes
311	40312	Sensor 5 Data	-32768~+32767			16-bit Signed	2Bytes
312	40313	Sensor 6 Data	-32768~+32767			16-bit Signed	2Bytes
313	40314	Sensor 7 Data	-32768~+32767			16-bit Signed	2Bytes
314	40315	Sensor 8 Data	-32768~+32767			16-bit Signed	2Bytes
315	40316	Sensor 9 Data	-32768~+32767			16-bit Signed	2Bytes
316	40317	Sensor 10 Data	-32768~+32767			16-bit Signed	2Bytes
317	40318	Power 1 Voltage	0~65535	0.1	V	16-bit Unsigned	2Bytes
318	40319	Power 2 Voltage	0~65535	0.1	V	16-bit Unsigned	2Bytes
319	40320	Charger D+ Voltage	0~65535	0.1	V	16-bit Unsigned	2Bytes
320	40321	Engine Running Status	0~65535			Engine Running Status	2Bytes
321	40322	Status Delay	0~65535	1	s		2Bytes
322	40323	Accumulated Running Time: Hour		0.1	h		2Bytes
323	40324						2Bytes
324	40325	Accumulated Start Times	0~65535	1			2Bytes
325	40326	Remote Start Status					2Bytes
326	40327	Remote Start Delay	0~65535	1	s		2Bytes
327	40328	/					2Bytes
328	40329	/					2Bytes
329	40330	ECU Alarm Quantity					2Bytes
330	40331	ECU Speed	-32768~+32767		r/min	16-bit Signed	2Bytes
331	40332	ECU Coolant Temp.	-32768~+32767		°C	16-bit Signed	2Bytes
332	40333	ECU Oil Temp.	-32768~+32767		°C	16-bit Signed	2Bytes
333	40334	ECU Oil Pressure	-32768~+32767		kPa	16-bit Signed	2Bytes
334	40335	ECU Sensor Data 1	-32768~+32767			Coolant Level	
335	40336	ECU Sensor Data 2	-32768~+32767			Oil Temp.	
336	40337	ECU Sensor Data 3	-32768~+32767			Coolant	

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
						Pressure	
337	40338	ECU Sensor Data 4	-32768~+32767			Fuel Pressure	
338	40339	ECU Sensor Data 5	-32768~+32767			Fuel Temp.	
339	40340	ECU Sensor Data 6	-32768~+32767			Inlet Temp.	
340	40341	ECU Sensor Data 7	-32768~+32767			Outlet Temp.	
341	40342	ECU Sensor Data 8	-32768~+32767			Turbo Pressure	
342	40343	ECU Sensor Data 9	-32768~+32767			Torque Percentage (Not Displayed)	
343	40344	ECU Sensor Data 10	-32768~+32767			Load Rate	
344	40345	ECU Sensor Data 11	-32768~+32767			Sea Water Pressure	
345	40346	ECU Sensor Data 12	-32768~+32767			ECU Temp.	
346	40347	ECU Sensor Data 13	-32768~+32767			Left Exhaust Temp.	
347	40348	ECU Sensor Data 14	-32768~+32767			Right Exhaust Temp.	
348	40349	ECU Sensor Data 15	-32768~+32767			Low-temperature Cooling Water Temp.	
349	40350	ECU Sensor Data 16	-32768~+32767			Low-temperature Cooling Water Pressure	
350	40351	Fuel Consumption	0~65535				
351	40352	Accumulated Fuel Consumption (H)	0~4294967296			32-bit Unsigned	
352	40353	Accumulated Fuel Consumption (L)					
353	40354	Torque Percentage (Displayed)					
354	40355	Accelerator Pedal Position					
355	40356	Fuel Filter Differential Pressure	-32768~+32767			16-bit Signed	
356	40357	Lubricating Oil Filter Differential Pressure	-32768~+32767				
357	40358	Crankcase Pressure	-32768~+32767				
358	40359	Inlet Pressure	-32768~+32767				
359	40360	Gearbox Pressure	-32768~+32767				
360	40361	Rail Pressure H	0~4294967296			32-bit Unsigned	
361	40362	Rail Pressure L					

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
362	40363	Running Hours H	0~4294967296			32-bit Unsigned	
363	40364	Running Hours L					
364	40365	Urea Level	-32768~+32767			16-bit Signed	
365	40366	Urea Temp.	-32768~+32767		°C	16-bit Signed	
366	40367	SCR Front Exhaust Temp.	-32768~+32767		°C	16-bit Signed	
367	40368	SCR Back Exhaust Temp.	-32768~+32767		°C	16-bit Signed	
368	40369	/					
369	40370	/					
370	40371	/					
371	40372	/					
372	40373	/					
373	40374	/					
374	40375	/					
375	40376	Difference Sensor Channel 1 Data	-32768~+32767			16-bit Signed	2Bytes
376	40377	Difference Sensor Channel 2 Data	-32768~+32767			16-bit Signed	2Bytes
377	40378	Difference Sensor Channel 3 Data	-32768~+32767			16-bit Signed	2Bytes
378	40379	Difference Sensor Channel 4 Data	-32768~+32767			16-bit Signed	2Bytes
379	40380	Average Value Sensor Channel 1 Data	-32768~+32767			16-bit Signed	2Bytes
380	40381	Average Value Sensor Channel 2 Data	-32768~+32767			16-bit Signed	2Bytes
381	40382	Average Value Sensor Channel 3 Data	-32768~+32767			16-bit Signed	2Bytes
382	40383	/					2Bytes
383	40384	/					2Bytes
384	40385	/					2Bytes
385	40386	/					2Bytes
386	40387	Controller Model					2Bytes
387	40388	Controller Software Version					2Bytes
388	40389	Controller Hardware Version					2Bytes
389	40390	Release Year					2Bytes
390	40391	Release Month					2Bytes
391	40392	Released Day					2Bytes
392	40393	/					2Bytes
393	40394	Total Event Logs					2Bytes

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
394	40395	Controller Date: Year	0~100	1	Year		2Bytes
395	40396	Controller Date: Month	1~12	1	Month		2Bytes
396	40397	Controller Date: Day	1~31	1	Day		2Bytes
397	40398	Controller Date: Week	0~6	1	Week		2Bytes
398	40399	Controller Time: Hour	0~23	1	Hour		2Bytes
399	40400	Controller Time: Minute	0~59	1	min		2Bytes
400	40401	Controller Time: Second	0~59	1	s		2Bytes
401	40402	Exhaust Baffle Open		1	s	Countdown: second, which is not displayed when it reaches 0	2Bytes
402	40403	Exhaust Baffle Close		1	s		2Bytes
403	40404	Louver Open		1	s		2Bytes
404	40405	Louver Close		1	s		2Bytes
405	40406	Pre-lubrication Output		1	s	Countdown: second, which is not displayed when it reaches 0 The default display content is Pre-lubrication Output.	2Bytes
406	40407	After Pre-lubrication Output		1	s		2Bytes
407	40408	Sensor 1 Current	-32768~+32767	0.01	mA	16-bit Signed	2Bytes
408	40409	Sensor 2 Current	-32768~+32767	0.01	mA	16-bit Signed	2Bytes
409	40410	Sensor 3 Current	-32768~+32767	0.01	mA	16-bit Signed	2Bytes
410	40411	Sensor 4 Current	-32768~+32767	0.01	mA	16-bit Signed	2Bytes
411	40412	Sensor 5 Resistance	-32768~+32767	0.1	Ω	16-bit Signed	2Bytes
412	40413	Sensor 6 Resistance	-32768~+32767	0.1	Ω	16-bit Signed	2Bytes
413	40414	Sensor 7 Resistance	-32768~+32767	0.1	Ω	16-bit Signed	2Bytes
414	40415	Sensor 8 Resistance	-32768~+32767	0.1	Ω	16-bit Signed	2Bytes
415	40416	Sensor 9 Voltage	-32768~+32767	0.01	V	16-bit Signed	2Bytes
416	40417	Sensor 10 Voltage	-32768~+32767	0.01	V	16-bit Signed	2Bytes
417	40418	Cycle Pre-lubrication Output				Countdown: second, which is not displayed when it reaches 0	2Bytes

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
						The default display content is Pre-lubrication Output.	
418	40419	/					2Bytes
419	40420	RPU Sensor 1 Type					2Bytes
420	40421	RPU Sensor 2 Type					2Bytes
421	40422	RPU Sensor 1 Data	-32768~+32767			16-bit Signed	2Bytes
422	40423	RPU Sensor 2 Data	-32768~+32767			16-bit Signed	2Bytes
423	40424	DIN16A-1 Input Status					2Bytes
424	40425	DIN16A-2 Input Status					2Bytes
425	40426	DOUT16B-1 Output Status					2Bytes
426	40427	DOUT16B -2 Output Status					2Bytes
427	40428	/					
428	40429	/					
429	40430	/					
430	40431	/					
431	40432	AIN8 Sensor 1 Data (Module 1)	-32768~+32767			16-bit Signed	
432	40433	AIN8 Sensor 2 Data (Module 1)	-32768~+32767			16-bit Signed	
433	40434	AIN8 Sensor 3 Data (Module 1)	-32768~+32767			16-bit Signed	
434	40435	AIN8 Sensor 4 Data (Module 1)	-32768~+32767			16-bit Signed	
435	40436	AIN8 Sensor 5 Data (Module 1)	-32768~+32767			16-bit Signed	
436	40437	AIN8 Sensor 6 Data (Module 1)	-32768~+32767			16-bit Signed	
437	40438	AIN8 Sensor 7 Data (Module 1)	-32768~+32767			16-bit Signed	
438	40439	AIN8 Sensor 8 Data (Module 1)	-32768~+32767			16-bit Signed	
439	40440	AIN8 Sensor 1 Data (Module 2)	-32768~+32767			16-bit Signed	
440	40441	AIN8 Sensor 2 Data (Module 2)	-32768~+32767			16-bit Signed	
441	40442	AIN8 Sensor 3 Data (Module 2)	-32768~+32767			16-bit Signed	
442	40443	AIN8 Sensor 4 Data	-32768~+32767			16-bit Signed	

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		(Module 2)					
443	40444	AIN8 Sensor 5 Data (Module 2)	-32768~+32767			16-bit Signed	
444	40445	AIN8 Sensor 6 Data (Module 2)	-32768~+32767			16-bit Signed	
445	40446	AIN8 Sensor 7 Data (Module 2)	-32768~+32767			16-bit Signed	
446	40447	AIN8 Sensor 8 Data (Module 2)	-32768~+32767			16-bit Signed	
447	40448	/	/	/	/	/	
448	40449	/	/	/	/	/	
449	40450	/	/	/	/	/	
450	40451	/	/	/	/	/	
451	40452	/	/	/	/	/	
452	40453	/	/	/	/	/	
453	40454	/	/	/	/	/	
454	40455	/	/	/	/	/	
455	40456	/	/	/	/	/	
456	40457	/	/	/	/	/	
457	40458	/	/	/	/	/	
458	40459	/	/	/	/	/	
459	40460	/	/	/	/	/	
460	40461	/	/	/	/	/	
461	40462	/	/	/	/	/	
462	40463	/	/	/	/	/	
463	40464	AIN23 Sensor 1 Data (Module 1)	-32768~+32767			16-bit Signed	
464	40465	AIN23 Sensor 2 Data (Module 1)	-32768~+32767			16-bit Signed	
465	40466	AIN23 Sensor 3 Data (Module 1)	-32768~+32767			16-bit Signed	
466	40467	AIN23 Sensor 4 Data (Module 1)	-32768~+32767			16-bit Signed	
467	40468	AIN23 Sensor 5 Data (Module 1)	-32768~+32767			16-bit Signed	
468	40469	AIN23 Sensor 6 Data (Module 1)	-32768~+32767			16-bit Signed	
469	40470	AIN23 Sensor 7 Data (Module 1)	-32768~+32767			16-bit Signed	
470	40471	AIN23 Sensor 8 Data (Module 1)	-32768~+32767			16-bit Signed	
471	40472	AIN23 Sensor 9 Data (Module 1)	-32768~+32767			16-bit Signed	

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
472	40473	AIN23 Sensor 10 Data (Module 1)	-32768~+32767			16-bit Signed	
473	40474	AIN23 Sensor 11 Data (Module 1)	-32768~+32767			16-bit Signed	
474	40475	AIN23 Sensor 12 Data (Module 1)	-32768~+32767			16-bit Signed	
475	40476	AIN23 Sensor 13 Data (Module 1)	-32768~+32767			16-bit Signed	
476	40477	AIN23 Sensor 14 Data (Module 1)	-32768~+32767			16-bit Signed	
477	40478	AIN23 Sensor 15 Data (Module 1)	-32768~+32767			16-bit Signed	
478	40479	AIN23 Sensor 16 Data (Module 1)	-32768~+32767			16-bit Signed	
479	40480	AIN23 Sensor 17 Data (Module 1)	-32768~+32767			16-bit Signed	
480	40481	AIN23 Sensor 18 Data (Module 1)	-32768~+32767			16-bit Signed	
481	40482	AIN23 Sensor 19 Data (Module 1)	-32768~+32767			16-bit Signed	
482	40483	AIN23 Sensor 20 Data (Module 1)	-32768~+32767			16-bit Signed	
483	40484	AIN23 Sensor 21 Data (Module 1)	-32768~+32767			16-bit Signed	
484	40485	AIN23 Sensor 22 Data (Module 1)	-32768~+32767			16-bit Signed	
485	40486	AIN23 Sensor 23 Data (Module 1)	-32768~+32767			16-bit Signed	
486	40487	/				16-bit Signed	
487	40488	AIN23 Sensor 1 Data (Module 2)	-32768~+32767			16-bit Signed	
488	40489	AIN23 Sensor 2 Data (Module 2)	-32768~+32767			16-bit Signed	
489	40490	AIN23 Sensor 3 Data (Module 2)	-32768~+32767			16-bit Signed	
490	40491	AIN23 Sensor 4 Data (Module 2)	-32768~+32767			16-bit Signed	
491	40492	AIN23 Sensor 5 Data (Module 2)	-32768~+32767			16-bit Signed	
492	40493	AIN23 Sensor 6 Data (Module 2)	-32768~+32767			16-bit Signed	
493	40494	AIN23 Sensor 7 Data (Module 2)	-32768~+32767			16-bit Signed	

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
494	40495	AIN23 Sensor 8 Data (Module 2)	-32768~+32767			16-bit Signed	
495	40496	AIN23 Sensor 9 Data (Module 2)	-32768~+32767			16-bit Signed	
496	40497	AIN23 Sensor 10 Data (Module 2)	-32768~+32767			16-bit Signed	
497	40498	AIN23 Sensor 11 Data (Module 2)	-32768~+32767			16-bit Signed	
498	40499	AIN23 Sensor 12 Data (Module 2)	-32768~+32767			16-bit Signed	
499	40500	AIN23 Sensor 13 Data (Module 2)	-32768~+32767			16-bit Signed	
500	40501	AIN23 Sensor 14 Data (Module 2)	-32768~+32767			16-bit Signed	
501	40502	AIN23 Sensor 15 Data (Module 2)	-32768~+32767			16-bit Signed	
502	40503	AIN23 Sensor 16 Data (Module 2)	-32768~+32767			16-bit Signed	
503	40504	AIN23 Sensor 17 Data (Module 2)	-32768~+32767			16-bit Signed	
504	40505	AIN23 Sensor 18 Data (Module 2)	-32768~+32767			16-bit Signed	
505	40506	AIN23 Sensor 19 Data (Module 2)	-32768~+32767			16-bit Signed	
506	40507	AIN23 Sensor 20 Data (Module 2)	-32768~+32767			16-bit Signed	
507	40508	AIN23 Sensor 21 Data (Module 2)	-32768~+32767			16-bit Signed	
508	40509	AIN23 Sensor 22 Data (Module 2)	-32768~+32767			16-bit Signed	
509	40510	AIN23 Sensor 23 Data (Module 2)	-32768~+32767			16-bit Signed	
510	40511	/				16-bit Signed	
511	40512	AIN16M01 Sensor 1 Data	-32768~+32767			16-bit Signed	
512	40513	AIN16M01 Sensor 2 Data	-32768~+32767			16-bit Signed	
513	40514	AIN16M01 Sensor 3 Data	-32768~+32767			16-bit Signed	
514	40515	AIN16M01 Sensor 4 Data	-32768~+32767			16-bit Signed	
515	40516	AIN16M01 Sensor 5 Data	-32768~+32767			16-bit Signed	

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
516	40517	AIN16M01 Sensor 6 Data	-32768~+32767			16-bit Signed	
517	40518	AIN16M01 Sensor 7 Data	-32768~+32767			16-bit Signed	
518	40519	AIN16M01 Sensor 8 Data	-32768~+32767			16-bit Signed	
519	40520	AIN16M01 Sensor 9 Data	-32768~+32767			16-bit Signed	
520	40521	AIN16M01 Sensor 10 Data	-32768~+32767			16-bit Signed	
521	40522	AIN16M01 Sensor 11 Data	-32768~+32767			16-bit Signed	
522	40523	AIN16M01 Sensor 12 Data	-32768~+32767			16-bit Signed	
523	40524	AIN16M01 Output Current 1	0~65535	0.01	mA	16-bit Signed	
524	40525	AIN16M01 Output Current 2	0~65535	0.01	mA	16-bit Signed	
525	40526	AIN16M01 Output Current 3	0~65535	0.01	mA	16-bit Signed	
526	40527	/					
527	40528	/					
528	40529	/					
529	40530	RPU560B Speed Data					
530	40531	RPU560B Sensor 1 Data	-32768~+32767			16-bit Signed	
531	40532	RPU560B Sensor 2 Data	-32768~+32767			16-bit Signed	
532	40533	RPU560B Input Status					
533	40534	RPU560B Output Status					
534	40535	/					
535	40536	/					
536	40537	/					
537	40538	/					
538	40539	/					
539	40540	MI014 Speed Data					
540	40541	MI014 Sensor 1 Data	-32768~+32767			16-bit Signed	
541	40542	MI014 Sensor 2 Data	-32768~+32767			16-bit Signed	
542	40543	MI014 Input Status					
543	40544	MI014 Output Status					
544~800	40545~40801	/					

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
801	40802	AIN8 Sensor 1 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
802	40803	AIN8 Sensor 2 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
803	40804	AIN8 Sensor 3 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
804	40805	AIN8 Sensor 4 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
805	40806	AIN8 Sensor 5 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
806	40807	AIN8 Sensor 6 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
807	40808	AIN8 Sensor 7 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
808	40809	AIN8 Sensor 8 Data (Module 1)	-32768~+32767	0.00/0.0	kPa/°C	Pressure/Temperature	2Bytes
809	40810	AIN8 Sensor 1 (Resistance/Voltage/Current) (Module 1)					
810	40811	AIN8 Sensor 2 (Resistance/Voltage/Current) (Module 1)					
811	40812	AIN8 Sensor 3 (Resistance/Voltage/Current) (Module 1)					
812	40813	AIN8 Sensor 4 (Resistance/Voltage/Current) (Module 1)					
813	40814	AIN8 Sensor 5 (Resistance/Voltage/Current) (Module 1)					
814	40815	AIN8 Sensor 6 (Resistance/Voltage/Current) (Module 1)					
815	40816	AIN8 Sensor 7 (Resistance/Voltage/Current) (Module 1)					
816	40817	AIN8 Sensor 8 (Resistance/Voltage/Current) (Module 1)					
817	40818	AIN8 Sensor 1 Type (Module 1)					
818	40819	AIN8 Sensor 2 Type (Module 1)					

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
819	40820	AIN8 Sensor 3 Type (Module 1)					
820	40821	AIN8 Sensor 4 Type (Module 1)					
821	40822	AIN8 Sensor 5 Type (Module 1)					
822	40823	AIN8 Sensor 6 Type (Module 1)					
823	40824	AIN8 Sensor 7 Type (Module 1)					
824	40825	AIN8 Sensor 8 Type (Module 1)					
825	40826	AIN8 Sensor 1 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
826	40827	AIN8 Sensor 2 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
827	40828	AIN8 Sensor 3 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
828	40829	AIN8 Sensor 4 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
829	40830	AIN8 Sensor 5 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
830	40831	AIN8 Sensor 6 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
831	40832	AIN8 Sensor 7 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
832	40833	AIN8 Sensor 8 Data (Module 2)	-32768~+32767	0.00/ 0.0	kPa/ °C	Pressure/Tem p.	2Bytes
833	40834	AIN8 Sensor 1 (Resistance/Voltage/C urrent) (Module 2)					2Bytes
834	40835	AIN8 Sensor 2 (Resistance/Voltage/C urrent) (Module 2)					2Bytes
835	40836	AIN8 Sensor 3 (Resistance/Voltage/C urrent) (Module 2)					2Bytes
836	40837	AIN8 Sensor 4 (Resistance/Voltage/C urrent) (Module 2)					2Bytes
837	40838	AIN8 Sensor 5 (Resistance/Voltage/C urrent) (Module 2)					2Bytes

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
838	40839	AIN8 Sensor 6 (Resistance/Voltage/Current) (Module 2)					2Bytes
839	40840	AIN8 Sensor 7 (Resistance/Voltage/Current) (Module 2)					2Bytes
840	40841	AIN8 Sensor 8 (Resistance/Voltage/Current) (Module 2)					2Bytes
841	40842	AIN8 Sensor 1 Type (Module 2)					2Bytes
842	40843	AIN8 Sensor 2 Type (Module 2)					2Bytes
843	40844	AIN8 Sensor 3 Type (Module 2)					2Bytes
844	40845	AIN8 Sensor 4 Type (Module 2)					2Bytes
845	40846	AIN8 Sensor 5 Type (Module 2)					2Bytes
846	40847	AIN8 Sensor 6 Type (Module 2)					2Bytes
847	40848	AIN8 Sensor 7 Type (Module 2)					2Bytes
848	40849	AIN8 Sensor 8 Type (Module 2)					2Bytes
849	40850	/					2Bytes
850	40851	/					2Bytes
851	40852	/					2Bytes
852	40853	/					2Bytes
853	40854	/					2Bytes
854	40855	/					2Bytes
855	40856	/					2Bytes
856	40857	/					2Bytes
857	40858	/					2Bytes
858	40859	/					2Bytes
859	40860	/					2Bytes
860	40861	/					2Bytes
861	40862	/					2Bytes
862	40863	/					2Bytes
863	40864	/					2Bytes
864	40865	/					2Bytes
865	40866	/					2Bytes
866	40867	/					2Bytes

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
867	40868	/					2Bytes
868	40869	/					2Bytes
869	40870	/					2Bytes
870	40871	/					2Bytes
871	40872	/					2Bytes
872	40873	/					2Bytes
873	40874	/					2Bytes
874	40875	/					2Bytes
875	40876	/					2Bytes
876	40877	/					2Bytes
877	40878	/					2Bytes
878	40879	/					2Bytes
879	40880	/					2Bytes
880	40881	/					2Bytes
881	40882	/					
882	40883	/					
883	40884	/					
884	40885	/					
885	40886	/					
886	40887	/					
887	40888	/					
888	40889	/					
889	40890	/					
890	40891	/					
891	40892	/					
892	40893	/					
893	40894	/					
894	40895	/					
895	40896	/					
896	40897	/					
897	40898	/					
898	40899	/					
899	40900	/					
900	40901	/					
901	40902	AIN23 Sensor 1 Data (Module 1)	-32768~+32767			16-bit Signed	
902	40903	AIN23 Sensor 2 Data (Module 1)	-32768~+32767			16-bit Signed	
903	40904	AIN23 Sensor 3 Data (Module 1)	-32768~+32767			16-bit Signed	
904	40905	AIN23 Sensor 4 Data (Module 1)	-32768~+32767			16-bit Signed	
905	40906	AIN23 Sensor 5 Data	-32768~+32767			16-bit Signed	

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		(Module 1)					
906	40907	AIN23 Sensor 6 Data (Module 1)	-32768~+32767			16-bit Signed	
907	40908	AIN23 Sensor 7 Data (Module 1)	-32768~+32767			16-bit Signed	
908	40909	AIN23 Sensor 8 Data (Module 1)	-32768~+32767			16-bit Signed	
909	40910	AIN23 Sensor 9 Data (Module 1)	-32768~+32767			16-bit Signed	
910	40911	AIN23 Sensor 10 Data (Module 1)	-32768~+32767			16-bit Signed	
911	40912	AIN23 Sensor 11 Data (Module 1)	-32768~+32767			16-bit Signed	
912	40913	AIN23 Sensor 12 Data (Module 1)	-32768~+32767			16-bit Signed	
913	40914	AIN23 Sensor 13 Data (Module 1)	-32768~+32767			16-bit Signed	
914	40915	AIN23 Sensor 14 Data (Module 1)	-32768~+32767			16-bit Signed	
915	40916	AIN23 Sensor 15 Data (Module 1)	-32768~+32767			16-bit Signed	
916	40917	AIN23 Sensor 16 Data (Module 1)	-32768~+32767			16-bit Signed	
917	40918	AIN23 Sensor 17 Data (Module 1)	-32768~+32767			16-bit Signed	
918	40919	AIN23 Sensor 18 Data (Module 1)	-32768~+32767			16-bit Signed	
919	40920	AIN23 Sensor 19 Data (Module 1)	-32768~+32767			16-bit Signed	
920	40921	AIN23 Sensor 20 Data (Module 1)	-32768~+32767			16-bit Signed	
921	40922	AIN23 Sensor 21 Data (Module 1)	-32768~+32767			16-bit Signed	
922	40923	AIN23 Sensor 22 Data (Module 1)	-32768~+32767			16-bit Signed	
923	40924	AIN23 Sensor 23 Data (Module 1)	-32768~+32767			16-bit Signed	
924	40925	/					
925	40926	AIN23 Sensor 1 (Voltage) (Module 1)					
926	40927	AIN23 Sensor 2 (Voltage) (Module 1)					
927	40928	AIN23 Sensor 3					

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		(Voltage) (Module 1)					
928	40929	AIN23 Sensor 4 (Voltage) (Module 1)					
929	40930	AIN23 Sensor 5 (Voltage) (Module 1)					
930	40931	AIN23 Sensor 6 (Voltage) (Module 1)					
931	40932	AIN23 Sensor 7 (Voltage) (Module 1)					
932	40933	AIN23 Sensor 8 (Voltage) (Module 1)					
933	40934	AIN23 Sensor 9 (Voltage) (Module 1)					
934	40935	AIN23 Sensor 10 (Voltage) (Module 1)					
935	40936	AIN23 Sensor 11 (Voltage) (Module 1)					
936	40937	AIN23 Sensor 12 (Voltage) (Module 1)					
937	40938	AIN23 Sensor 13 (Resistance) (Module 1)					
938	40939	AIN23 Sensor 14 (Resistance) (Module 1)					
939	40940	AIN23 Sensor 15 (Resistance) (Module 1)					
940	40941	AIN23 Sensor 16 (Current) (Module 1)					
941	40942	AIN23 Sensor 17 (Current) (Module 1)					
942	40943	AIN23 Sensor 18 (Current) (Module 1)					
943	40944	AIN23 Sensor 19 (Current) (Module 1)					
944	40945	AIN23 Sensor 20 (Current) (Module 1)					
945	40946	AIN23 Sensor 21 (Current) (Module 1)					
946	40947	AIN23 Sensor 22 (Current) (Module 1)					
947	40948	AIN23 Sensor 23					

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		(Current) (Module 1)					
948	40949	/					
949	40950	AIN23 Sensor 1 Data (Module 2)	-32768~+32767			16-bit Signed	
950	40951	AIN23 Sensor 2 Data (Module 2)	-32768~+32767			16-bit Signed	
951	40952	AIN23 Sensor 3 Data (Module 2)	-32768~+32767			16-bit Signed	
952	40953	AIN23 Sensor 4 Data (Module 2)	-32768~+32767			16-bit Signed	
953	40954	AIN23 Sensor 5 Data (Module 2)	-32768~+32767			16-bit Signed	
954	40955	AIN23 Sensor 6 Data (Module 2)	-32768~+32767			16-bit Signed	
955	40956	AIN23 Sensor 7 Data (Module 2)	-32768~+32767			16-bit Signed	
956	40957	AIN23 Sensor 8 Data (Module 2)	-32768~+32767			16-bit Signed	
957	40958	AIN23 Sensor 9 Data (Module 2)	-32768~+32767			16-bit Signed	
958	40959	AIN23 Sensor 10 Data (Module 2)	-32768~+32767			16-bit Signed	
959	40960	AIN23 Sensor 11 Data (Module 2)	-32768~+32767			16-bit Signed	
960	40961	AIN23 Sensor 12 Data (Module 2)	-32768~+32767			16-bit Signed	
961	40962	AIN23 Sensor 13 Data (Module 2)	-32768~+32767			16-bit Signed	
962	40963	AIN23 Sensor 14 Data (Module 2)	-32768~+32767			16-bit Signed	
963	40964	AIN23 Sensor 15 Data (Module 2)	-32768~+32767			16-bit Signed	
964	40965	AIN23 Sensor 16 Data (Module 2)	-32768~+32767			16-bit Signed	
965	40966	AIN23 Sensor 17 Data (Module 2)	-32768~+32767			16-bit Signed	
966	40967	AIN23 Sensor 18 Data (Module 2)	-32768~+32767			16-bit Signed	
967	40968	AIN23 Sensor 19 Data (Module 2)	-32768~+32767			16-bit Signed	
968	40969	AIN23 Sensor 20 Data (Module 2)	-32768~+32767			16-bit Signed	
969	40970	AIN23 Sensor 21 Data	-32768~+32767			16-bit Signed	

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		(Module 2)					
970	40971	AIN23 Sensor 22 Data (Module 2)	-32768~+32767			16-bit Signed	
971	40972	AIN23 Sensor 23 Data (Module 2)	-32768~+32767			16-bit Signed	
972	40973	Current					
973	40974	AIN23 Sensor 1 (Voltage) (Module 2)					
974	40975	AIN23 Sensor 2 (Voltage) (Module 2)					
975	40976	AIN23 Sensor 3 (Voltage) (Module 2)					
976	40977	AIN23 Sensor 4 (Voltage) (Module 2)					
977	40978	AIN23 Sensor 5 (Voltage) (Module 2)					
978	40979	AIN23 Sensor 6 (Voltage) (Module 2)					
979	40980	AIN23 Sensor 7 (Voltage) (Module 2)					
980	40981	AIN23 Sensor 8 (Voltage) (Module 2)					
981	40982	AIN23 Sensor 9 (Voltage) (Module 2)					
982	40983	AIN23 Sensor 10 (Voltage) (Module 2)					
983	40984	AIN23 Sensor 11 (Voltage) (Module 2)					
984	40985	AIN23 Sensor 12 (Voltage) (Module 2)					
985	40986	AIN23 Sensor 13 (Resistance) (Module 2)					
986	40987	AIN23 Sensor 14 (Resistance) (Module 2)					
987	40988	AIN23 Sensor 15 (Resistance) (Module 2)					
988	40989	AIN23 Sensor 16 (Current) (Module 2)					
989	40990	AIN23 Sensor 17 (Current) (Module 2)					

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
990	40991	AIN23 Sensor 18 (Current) (Module 2)					
991	40992	AIN23 Sensor 19 (Current) (Module 2)					
992	40993	AIN23 Sensor 20 (Current) (Module 2)					
993	40994	AIN23 Sensor 21 (Current) (Module 2)					
994	40995	AIN23 Sensor 22 (Current) (Module 2)					
995	40996	AIN23 Sensor 23 (Current) (Module 2)					
996	40997	Current					
997	40998	AIN16M01 Data 1	-32768~+32767			16-bit Signed	
998	40999	AIN16M01 Data 2	-32768~+32767			16-bit Signed	
999	41000	AIN16M01 Data 3	-32768~+32767			16-bit Signed	
1000	41001	AIN16M01 Data 4	-32768~+32767			16-bit Signed	
1001	41002	AIN16M01 Data 5	-32768~+32767			16-bit Signed	
1002	41003	AIN16M01 Data 6	-32768~+32767			16-bit Signed	
1003	41004	AIN16M01 Data 7	-32768~+32767			16-bit Signed	
1004	41005	AIN16M01 Data 8	-32768~+32767			16-bit Signed	
1005	41006	AIN16M01 Data 9	-32768~+32767			16-bit Signed	
1006	41007	AIN16M01 Data 10	-32768~+32767			16-bit Signed	
1007	41008	AIN16M01 Data 11	-32768~+32767			16-bit Signed	
1008	41009	AIN16M01 Data 12	-32768~+32767			16-bit Signed	
1009	41010	AIN16M01 Current Output 1	-32768~+32767	0.00	mA	16-bit Signed	
1010	41011	AIN16M01 Current Output 2	-32768~+32767	0.00	mA	16-bit Signed	
1011	41012	AIN16M01 Current Output 3	-32768~+32767	0.00	mA	16-bit Signed	
1012	41013	AIN16M01 Sensor 1 (Resistance)					
1013	41014	AIN16M01 Sensor 2 (Resistance)					
1014	41015	AIN16M01 Sensor 3 (Resistance)					
1015	41016	AIN16M01 Sensor 4 (Resistance)					
1016	41017	AIN16M01 Sensor 5 (Resistance)					
1017	41018	AIN16M01 Sensor 6 (Resistance)					

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
1018	41019	AIN16M01 Sensor 7 (Resistance)					
1019	41020	AIN16M01 Sensor 8 (Resistance)					
1020	41021	AIN16M01 Sensor 9 (Current)					
1021	41022	AIN16M01 Sensor 10 (Current)					
1022	41023	AIN16M01 Sensor 11 (Voltage)					
1023	41024	AIN16M01 Sensor 12 (Voltage)					
1024~1208	41025~41209	/					
1209	41210	Speed (RPU)					
1210	41211	Emergency Stop Status (RPU)					Bit0
		Input 1 Status (RPU)					Bit1
		Input 2 Status (RPU)					Bit2
		Input 3 Status (RPU)					Bit3
		Input 4 Status (RPU)					Bit4
		Input 5 Status (RPU)					Bit5
		/				Bit6~Bit 15	
1211	41212	Output 1 Status (RPU)					Bit0
		Output 2 Status (RPU)					Bit1
		Output 3 Status (RPU)					Bit2
		Output 4 Status (RPU)					Bit3
		Output 5 Status (RPU)					Bit4
		/					Bit5
		/				Bit6~Bit 15	
1212	41213	Controller Model					2Bytes
1213	41214	Controller Software Version					2Bytes
1214	41215	Controller Hardware Version					2Bytes
1215	41216	Release Year					2Bytes
1216	41217	Release Month					2Bytes
1217	41218	Released Day					2Bytes
1218	41219	Sensor 1 Data	-32768~+32767			16-bit Signed	2Bytes
1219	41320	Sensor 2 Data	-32768~+32767			16-bit Signed	2Bytes
1320	41321	Sensor 1					2Bytes

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		Resistance/Current/Voltage					
1321	41322	Sensor 2 Resistance/Current/Voltage					2Bytes
1322	41323	/					2Bytes
1323	41324	/					2Bytes
1324	41325	/					2Bytes
1325	41326	/					2Bytes
1326	41327	/					2Bytes
1327	41328	/					2Bytes
1328	41329	/					2Bytes
1301	41302	SPN Alarm Quantity					2Bytes
1302	41303	SPN1					4Bytes
1303	41304						
1304	41305	FMI 1					2Bytes
1305	41306	SPN2					4Bytes
1306	41307						
1307	41308	FMI 2					2Bytes
1308	41309	SPN3					4Bytes
1309	41310						
1310	41311	FMI 3					2Bytes
1311	41312	SPN4					4Bytes
1312	41313						
1313	41314	FMI 4					2Bytes
1314	41315	SPN5					4Bytes
1315	41316						
1316	41317	FMI 5					2Bytes
1317	41318	SPN6					4Bytes
1318	41319						
1319	41320	FMI 6					2Bytes
1320	41321	SPN7					4Bytes
1321	41322						
1322	41323	FMI 7					2Bytes
1323	41324	SPN8					4Bytes
1324	41325						
1325	41326	FMI 8					2Bytes
1326	41327	SPN9					4Bytes
1327	41328						
1328	41329	FMI 9					2Bytes
1329	41330	SPN10					4Bytes
1330	41331						
1331	41332	FMI 10					2Bytes

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
1332 1333	41333 41334	SPN11					4Bytes
1334	41335	FMI 11					2Bytes
1335 1336	41336 41337	SPN12					4Bytes
1337	41338	FMI 12					2Bytes
1338 1339	41339 41340	SPN13					4Bytes
1340	41341	FMI 13					2Bytes
1341 1342	41342 41343	SPN14					4Bytes
1343	41344	FMI 14					2Bytes
1344 1345	41345 41346	SPN15					4Bytes
1346	41347	FMI 15					2Bytes
1347 1348	41348 41349	SPN16					4Bytes
1349	41350	FMI 16					2Bytes
1350 1351	41351 41352	SPN17					4Bytes
1352	41353	FMI 17					2Bytes
1353 1354	41254 41355	SPN18					4Bytes
1355	41356	FMI 18					2Bytes
1356 1357	41357 41358	SPN19					4Bytes
1358	41359	FMI 19					2Bytes
1359 1360	41360 41361	SPN20					4Bytes
1361	41362	FMI 20					2Bytes
1362~ 1500	41363~ 41501	/					
3500~ 3800	43501~ 43801	/				Custom Protocol Controller Data Field	
3800~ 4099	43701~ 44100	/				Custom Protocol Controller Config Field	
4100	44101	Common Alarm				1 as active (LSB)	1bit
		Common Warning				1 as active	1bit

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		Alarm					
		Common Trip Alarm				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active (MSB)	1bit
4101	44102	Gen. Overvoltage Trip Alarm				1 as active	1bit
		Gen. Undervoltage Trip Alarm				1 as active	1bit
		Gen. Loss of Phase Trip Alarm				1 as active	1bit
		Gen. Reverse Phase Sequence Trip Alarm				1 as active	1bit
		Gen. Overfrequency Trip Alarm				1 as active	1bit
		Gen. Underfrequency Trip Alarm				1 as active	1bit
		Gen. Overcurrent Trip Alarm				1 as active	1bit
		/				1 as active	1bit
		Gen. Over Power Trip Alarm				1 as active	1bit
		/				1 as active	1bit
		Gen. Reverse Power Trip Alarm				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
4102	44103	Gen. Overvoltage Warning				1 as active	1bit

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		Gen. Undervoltage Warning				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		Gen. Overfrequency Warning				1 as active	1bit
		Gen. Underfrequency Warning				1 as active	1bit
		/				1 as active	1bit
		Gen. Overcurrent Warning				1 as active	1bit
		/				1 as active	1bit
		Gen. Over Power Warning				1 as active	1bit
		/				1 as active	1bit
		Gen. Reverse Power Warning				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		4103	44104	/			
/						1 as active	1bit
/						1 as active	1bit
/						1 as active	1bit
/						1 as active	1bit
/						1 as active	1bit
/						1 as active	1bit
/						1 as active	1bit
/						1 as active	1bit
Voltage A THD						1 as active	1bit
Voltage B THD						1 as active	1bit
Voltage C THD						1 as active	1bit
Current A THD						1 as active	1bit
Current B THD						1 as active	1bit
Current C THD						1 as active	1bit
/				1 as active	1bit		
/				1 as active	1bit		
4104	44105	/					2Bytes
4105	44106	/					2Bytes
4106	44107	/					2Bytes
4107	44108	Output 1 Status				1 as active	1bit
		Output 2 Status				1 as active	1bit
		Output 3 Status				1 as active	1bit

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
		Output 4 Status				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
		/				1 as active	1bit
4108	44109	/					2Bytes
4109	44110	Gen. UAB	-32768~+32767	1	V	16-bit Signed	2Bytes
4110	44111	Gen. UBC	-32768~+32767	1	V	16-bit Signed	2Bytes
4111	44112	Gen. UCA	-32768~+32767	1	V	16-bit Signed	2Bytes
4112	44113	Gen. UA	-32768~+32767	1	V	16-bit Signed	2Bytes
4113	44114	Gen. UB	-32768~+32767	1	V	16-bit Signed	2Bytes
4114	44115	Gen. UC	-32768~+32767	1	V	16-bit Signed	2Bytes
4115	44116	Gen. UA Phase	-32768~+32767	1	°	16-bit Signed	2Bytes
4116	44117	Gen. UB Phase	-32768~+32767	1	°	16-bit Signed	2Bytes
4117	44118	Gen. UC Phase	-32768~+32767	1	°	16-bit Signed	2Bytes
4118	44119	Gen. Frequency	-32768~+32767	0.1	Hz	16-bit Signed	2Bytes
4119	44120~	/					2Bytes
4120	44121	/					2Bytes
4121	44132	/					2Bytes
4122	44123	Phase A Current	-32768~+32767	0.1	A	16-bit Signed	2Bytes
4123	44124	Phase B Current	-32768~+32767	0.1	A	16-bit Signed	2Bytes
4124	44125	Phase C Current	-32768~+32767	0.1	A	16-bit Signed	2Bytes
4125~ 4134	44126~ 44135	/					2Bytes
4135 4136	44136 44137	Phase A Active Power		0.1	kW	32-bit Signed	4Bytes
4137 4138	44138 44139	Phase B Active Power		0.1	kW	32-bit Signed	4Bytes
4139 4140	44140 44141	Phase C Active Power		0.1	kW	32-bit Signed	4Bytes
4141 4142	44142 44143	Total Active Power		0.1	kW	32-bit Signed	4Bytes
4143 4144	44144 44145	Phase A Reactive Power		0.1	kvar	32-bit Signed	4Bytes
4145	44146	Phase B Reactive		0.1	kvar	32-bit Signed	4Bytes

Modbus Address	PLC Address	Item	Range (Decimal)	Ratio	Unit	Description	Remarks
4146	44147	Power					
4147	44148	Phase C Reactive Power		0.1	kvar	32-bit Signed	4Bytes
4148	44149						
4149	44150	Total Reactive Power		0.1	kvar	32-bit Signed	4Bytes
4150	44151						
4151	44152	Phase A Apparent Power		0.1	kVA	32-bit Signed	4Bytes
4152	44153						
4153	44154	Phase B Apparent Power		0.1	kVA	32-bit Signed	4Bytes
4154	44155						
4155	44156	Phase C Apparent Power		0.1	kVA	32-bit Signed	4Bytes
4156	44157						
4157	44158	Total Apparent Power		0.1	kVA	32-bit Signed	4Bytes
4158	44159						
4159	44160	Phase A Power Factor	-32768~+32767	0.01		16-bit Signed	2Bytes
4160	44161	Phase B Power Factor	-32768~+32767	0.01		16-bit Signed	2Bytes
4161	44162	Phase C Power Factor	-32768~+32767	0.01		16-bit Signed	2Bytes
4162	44163	Average Power Factor	-32768~+32767	0.01		16-bit Signed	2Bytes
4163	44164	Voltage Phase A THD					
4164	44165	Voltage Phase B THD					
4165	44166	Voltage Phase C THD					
4166	44167	Current Phase A THD					
4167	44168	Current Phase B THD					
4168	44169	Current Phase C THD					
4169	44170	Active Energy	-32768~+32767	0.1	kWh	16-bit Signed	4Bytes
4170	44171						
4171	44172	Reactive Energy	-32768~+32767	0.1	kvarh	16-bit Signed	4Bytes
4172	44173						
4173	44174	Controller Model					2Bytes
4174	44175	Controller Software Version		0.1		16-bit Signed	2Bytes
4175	44176	Controller Hardware Version		0.1		16-bit Signed	2Bytes
4176	44177	Release Year				Save the last two digits of the Year only.	2Bytes
4177	44178	Release Month				16-bit Signed	2Bytes
4178	44179	Released Day				16-bit Signed	2Bytes
4179~4191	44180~44192	/					2Bytes

NOTE 1: Actual value = data received * ratio. Take the Sensor Current as the example: if the data received is 1000 (3E8H), ratio is 0.01mA, then the actual current value is 10.00mA (1000*0.01mA).

NOTE 2: Definition of signed number: Take the data received "8000H" as the example, convert it to binary number "1000 0000 0000 0000b". The MSB is 1, which means it is negative. The number minus 1 will get its 1's complement,

then inverting it will get the absolute value of the negative number. Finally convert the absolute value to decimal number -32768.

NOTE 3: The sensor's sampling value can be used to calculate the current value. The calculation formula is: Sensor's Sampling Value * 275 / 4095 = Sensor Current Value.

EXAMPLE:

If "Sensor 1 Current (current value is 10.00mA)" needs to be read, check the table above and find its coil address is 407, so it needs to read one byte of data.

Assuming the slave address is 01, the master request command is as following:

Table 7 Master Request Command

Slave Address	Function Code	Start Address (407)		Request Data Length (2)		CRC 16	
		MSB	LSB	MSB	LSB	LSB	MSB
01	03	01	97	00	01	34	1A

The slave response command is as following:

Table 8 Slave Response Command

Slave Address	Function Code	Data Length (Bytes)	Data		CRC 16	
			Data of Address 407 MSB	Data of Address 407 LSB	LSB	MSB
01	03	02	03	E8	B8	FA

Fill the data received into the address respectively, as shown in the table below.

Table 9 Data Analysis

Address	Data Received (Hex)	Data Combined (Hex)	Sensor 1 Current (Decimal)
407	03E8	03E8	10.00mA

APPENDIX 1 ENGINE RUNNING STATUS

Table 10 Engine Running Status

No.	Content	Default (Range)	Description
0	Standby		No delay value is shown in the status
1	Preheat		
2	Fuel Output		No delay value is shown in the status
3	Cranking		
4	Crank Rest		
5	Safety on Delay		
6	Start Idle		
7	High Speed Warming Up		
8	Wait to Load		No delay value is shown in the status
9	Normal Running		No delay value is shown in the status
10	High Speed Cooling		
11	Stop Idle		
12	ETS		
13	Wait for Stop		
14	Stop Failure		No delay value is shown in the status