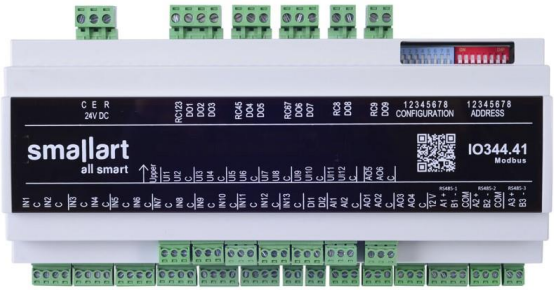
Features



- 24V DC power supply
- 13 pcs Passive Analog Inputs that can be used as voltage-free dry contacts or NTC10K sensors
- 2 pcs Passive Digital Inputs that can be used as dry contacts
- 12 pcs Universal Inputs that can be used as voltage-free dry contacts, NTC10K sensor, or 0-10V voltage input.
- 2 pcs 0-10V Active Analog Inputs
- 9 pcs 10A Digital Outputs
- 6 pcs 0-10V Analog Outputs
- Configuration DIP Switch (CONFIGURATION)
- Modbus address DIP Switch (ADDRESS)
- Modbus RTU communication
- Optional BACnet communication
- IP20 Plastic enclosure
- DIN Rail mounting

Applications

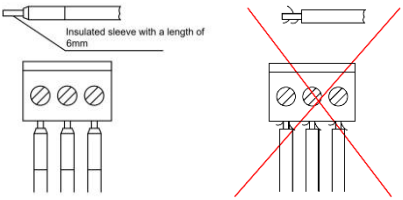
IO344 series IO modules are used in building automation and HVAC applications. The module is designed and manufactured to work seamlessly with all devices thanks to the Modbus communication.

Notes on Usage

Please, read this datasheet carefully. IO344 has been designed and manufactured in accordance with the latest technological developments and safety rules. To avoid injury and property damage safety warnings must be observed.

Safety Advice-Caution

Installation, maintenance, and repair of the device should be done by authorized personnel. The device has a power supply of 24 V AC and 1 A internal fuse. Relay outputs do not have internal protection due to the variety of components that can be used. It is recommended to use an external C-type fuse suitable for the required current level. Each pin of the supply and relay terminals can carry a maximum current of 20 A. Before making relay output connections, attention should be paid to recommended current levels.



The ends of the connection wires must be protected against delamination using insulated sleeves as shown in the figure.

Ordering Information

Product Code	Description	Power	Communication
IO344.41	9 pcs Digital Outputs (Relay) 6 pcs Analog Outputs 2 pcs Active Analog Inputs 13 pcs Passive Analog Inputs 2 pcs Passive Digital Inputs 12 pcs Universal Inputs 1 pc RS-485 Port	8.0 VA	Modbus RTU
IO344.42			BACnet MS/TP

Technical Specification

Power Supply	24V DC +%10-%15, 50/60Hz
Power Consumption	8.0 VA
Operating Temperature	0 °C …+50 °C
Storage Temperature	-20 °C …+70 °C
Relative Humidity	%5….95 RH, non-Condensing
Cable Connections	Socket Terminal Block, Max. 1 x 2,5 mm^2
Measuring Range	NTC10K: -50°C …+150°C Analog Input Voltage: 0-10V
Measuring Resolution	NTC: 0,1°C Analog Input: 0,1V
Inputs	13 pcs Passive Analog Inputs (NTC10K Temperature sensor or Voltage Free Dry Contact) 2 pcs Passive Digital Inputs 12 pcs Universal Inputs (NTC10K Temperature sensor, Voltage Free Dry Contact or 0-10V Active Analog Input 2 pcs 0-10V Active Analog Inputs
Outputs	9 pcs Digital Outputs (10A Relay)* 6 pcs Analog Outputs (0-10V)
Communication	1 pc RS-485 Port
Plastic Box	IP20 according to EN 60529
Box Type	DIN Rail Plastic Enclosure
Plastic Enclosure Material	ABS (UL 94 V-0)
Dimensions	212 x 59 x 115 mm (W x H x D)

* There is a 10 A relay. For optimal relay lifespan, 8A current is recommended for resistive loads, and maximum 5A current is recommended for inductive loads.

Mounting Location

Due to its structure, the device is suitable for wall mounting or rail mounting within the panel. It is recommended to have space for cable connections to the terminals to be made while mounting on the rail.

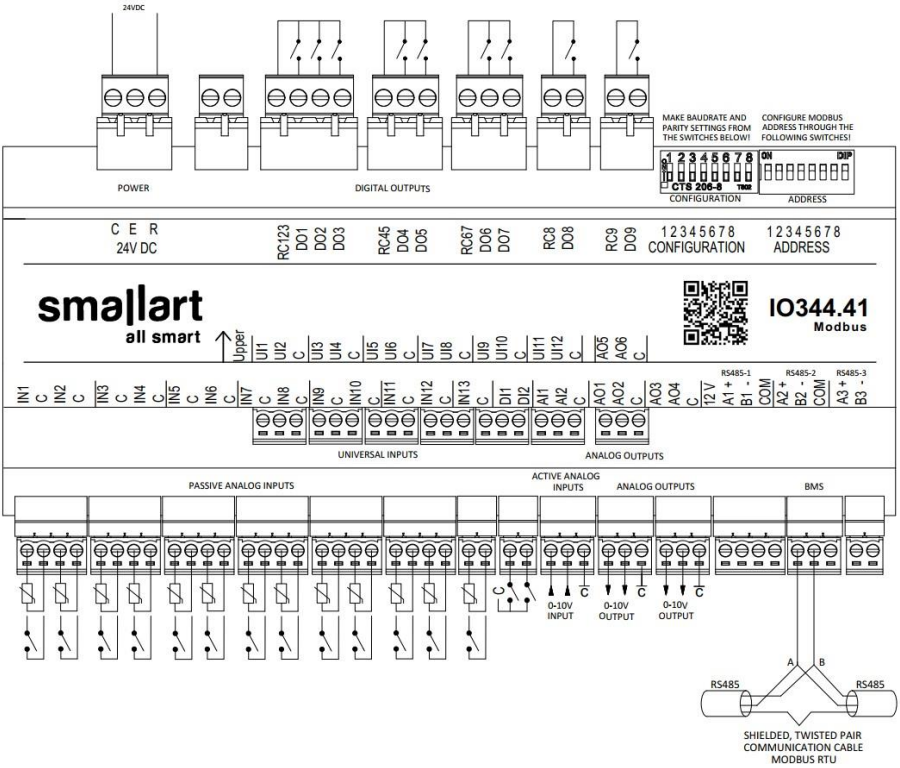
CAUTION: Power off the supply at 1A-C type circuit breaker or glass fuse before installation to avoid fire, shock, or death.

Mounting Instructions

Please follow the below instructions during mounting.

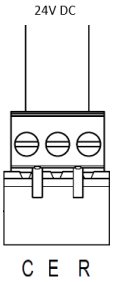
1. **Step:** Make sure the device is powered OFF.
2. **Step:** Connect the wires properly according to the connection diagrams below.
3. **Step:** Adjust the baud rate, parity, and BACnet address via ADDRESS and CONFIGURATION DIP Switches.
4. **Step:** Make sure that all connections are made properly.
5. **Step:** Power the device ON.

Connection Diagrams



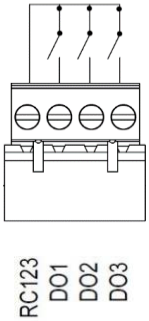
IO344.41 Connection Diagrams

Device Power Connection



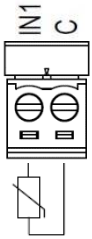
Connect the 24V DC output of the power supply to the R terminal. Connect the GND output of the power supply to the C terminal.

Digital Outputs DOx Connection



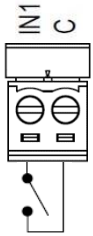
The voltage to be switched with DOx relays should be connected to the RC terminal. The voltage connected to RC terminals can be received from the DOx terminals when the DOx relays are closed. This applies to all digital output terminals. The maximum current that each pin of the terminal can carry is 20 A. 20 A is the maximum current that can pass through the RCX input.

Passive Analog Inputs (NTC10K)



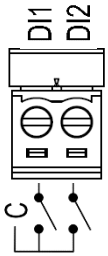
Connect the two cables of the NTC10K sensor as shown in the left picture. You can make this connection for other terminals.

Passive Analog Inputs (Dry Contact)



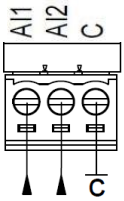
Connect the two cables of the dry contact as shown in the left picture. You can make this connection for other terminals.

Digital Inputs



It is used as a dry contact. A connection between the DI1 and DI2 inputs and any “C” terminals on the passive analog input can be established.

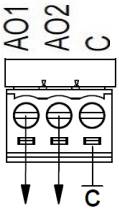
Active Analog Inputs



0-10V INPUTS

Connect the 0-10V output cables coming from the sensors, field devices, etc. to the AIx input and connect the GND or COM cable of the related device to the “C” terminal of the IO module as shown in the left picture.

Analog Outputs

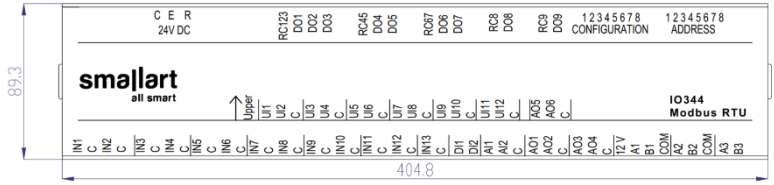


0-10V OUTPUTS

Connect the 0-10V output of the IO module to the related device’s 0-10V input and connect the GND or COM cable of the related device to the “C” terminal of the IO module as shown in the left picture.

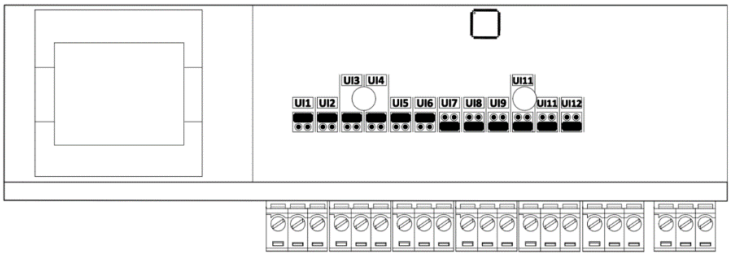
Upper Terminal Group Universal Inputs Settings

To use the upper terminal group, the selection headers on the upper board must be adjusted accordingly. The device must be powered off during the adjustment. Remove the transparent panel on the top of the device by pulling it up and pushing it.



→ Transparent Panel

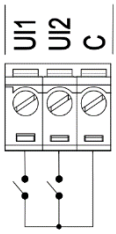
Adjust the selection headers on the upper board according to the type of input you want to use, as described below (Dry Contact-NTC10K, Active Analog Input). By default, UI1-6 inputs were adjusted as NTC10K-Dry Contact and UI7-12 inputs were adjusted as Active Analog Inputs. Take the transparent panel to the normal position after adjusting.



→ Upper Terminal Selection Headers

Upper Terminal Group (Dry Contact)

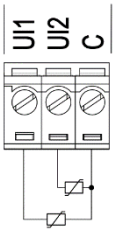
Connect the jumper to the NTC-DI part to use the Universal Input as Dry Contact as shown in the left picture.



Connect the two cables of the dry contact as shown in the left picture. You can make this connection for other terminals.

Upper Terminal Group (NTC10K)

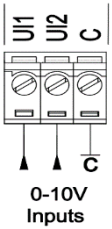
Connect the jumper to the NTC-DI part to use the Universal Input as NTC10K as shown in the left picture.



Connect the two cables of the NTC10K sensor as shown in the left picture. You can make this connection for other terminals.

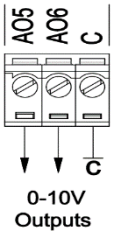
Upper Terminal Group (Active Analog Input)

Connect the jumper to the 0-10V part to use the Universal Input as 0-10V active input as shown in the left picture.



Connect the 0-10V output cables coming from the sensors, field devices, etc. to the UIx input and connect the GND or COM cable of the related device to the “C” terminal of the IO module as shown in the left picture.

Upper Terminal Group (Analog Output)



Connect the 0-10V output IO module to the related device’s 0-10V input and connect the GND or COM cable of the related device to the “C” terminal of the IO module shown in the picture.

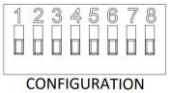
Switch Settings

ADRESS

Modbus Address must be adjusted between **1-247** via Address (ADDRESS) DIP Switch.

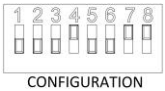
ADRESS

→ **E.g.**: Switch **1** and **3** poles must be set to **ON** position to adjust the address as **5**.



CONFIGURATION

Baud rate and Parity can be adjusted via the configuration (CONFIGURATION) DIP Switch according to the **"Baud Rate Setting Table"**.



CONFIGURATION

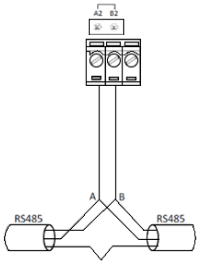
→ **E.g.**: Switch **4**, **7,** and **8** poles must be set to **ON** position to select the baud rate **76800 and Even**

BAUD RATE AND PARITY SETTINGS VIA CONFIGURATION DIP SWITCH								
Decimal	Dip Switch 4	Dip Switch 5	Parity	Dip Switch 7	Dip Switch 8	Baud Rate (bps)	Bits	Stop Bit(s)
0	0	0	None	0	0	9600	8	1
1	1	0	Even	1	0	19200	8	1
2	0	1	Odd	0	1	38400	8	1
3	1	1	None	1	1	76800	8	1
Note 1: The device default is 9600 bps and it can be adjusted to communicate with none parity. Note 2: The baud rate can be adjusted while the device is power off.								

Baud Rate and Parity Table

Modbus Address: Default 1
Baud Rate: Default 9600 bps
Parity: Default None
Note: Modbus address, baud rate, and parity changes will become effective after power off and on.

Communication and End of Line Resistor (EOL)



Make a connection between the "A" or "+" terminal on the selected port of your communication device and the A2 terminal of your card and between the "B" or "-"terminal of your device and the B2 terminal as shown in the left figure. To activate the end-of-line resistor, activate the jumper above the word A2 B2 on the PCB.

IO344 Modbus Parameters

Modbus Address	Parameter Name	Read(R)/ Write(W)	Default	Minimum	Maximum	Description
Decimal: 0	Temperature Input 1	R	-	-500	1500	This NTC10K value is measured from IN1.
Decimal: 1	Temperature Input 2	R	-	-500	1500	This NTC10K value is measured from IN2.
Decimal: 2	Temperature Input 3	R	-	-500	1500	This NTC10K value is measured from IN3.
Decimal: 3	Temperature Input 4	R	-	-500	1500	This NTC10K value is measured from IN4.
Decimal: 4	Temperature Input 5	R	-	-500	1500	This NTC10K value is measured from IN5.
Decimal: 5	Temperature Input 6	R	-	-500	1500	This NTC10K value is measured from IN6.
Decimal: 6	Temperature Input 7	R	-	-500	1500	This NTC10K value is measured from IN7.
Decimal: 7	Temperature Input 8	R	-	-500	1500	This NTC10K value is measured from IN8.
Decimal: 8	Temperature Input 9	R	-	-500	1500	This NTC10K value is measured from IN9.
Decimal: 9	Temperature Input 10	R	-	-500	1500	This NTC10K value is measured from IN10.
Decimal: 10	Temperature Input 11	R	-	-500	1500	This NTC10K value is measured from IN11.
Decimal: 11	Temperature Input 12	R	-	-500	1500	This NTC10K value is measured from IN12.
Decimal: 12	Temperature Input 13	R	-	-500	1500	This NTC10K value is measured from IN13.
Decimal: 13 : Decimal: 17	Reserve	-	-	-	-	-
Decimal: 18	Digital Dry Contact IN1	R	0	0	1	Input state of IN1. NC 0: Closed Contact 1: Open Contact NO 0:Open Contact 1:Closed Contact

Decimal: 19	Digital Dry Contact IN2	R	0	0	1	Input state of IN2. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 20	Digital Dry Contact IN3	R	0	0	1	Input state of IN3. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 21	Digital Dry Contact IN4	R	0	0	1	Input state of IN4. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 22	Digital Dry Contact IN5	R	0	0	1	Input state of IN5. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 23	Digital Dry Contact IN6	R	0	0	1	Input state of IN6. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 24	Digital Dry Contact IN7	R	0	0	1	Input state of IN7. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 25	Digital Dry Contact IN8	R	0	0	1	Input state of IN8. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 26	Digital Dry Contact IN9	R	0	0	1	Input state of IN9. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 27	Digital Dry Contact IN10	R	0	0	1	Input state of IN10. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 28	Digital Dry Contact IN11	R	0	0	1	Input state of IN11. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 29	Digital Dry Contact IN12	R	0	0	1	Input state of IN12. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 30	Digital Dry Contact IN13	R	0	0	1	Input state of IN13. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 31	Digital Dry Contact IN14	R	0	0	1	Input state of IN14. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact

Decimal: 32	Digital Dry Contact IN15	R	0	0	1	Input state of IN15. NC 0: Closed Contact 1: Open Contact NO 0: Open Contact 1: Closed Contact
Decimal: 33 : Decimal: 37	Reserve	-	-	-	-	-
Decimal: 38	Analog Input 1	R	0	0 (0 V)	1000 (10 V)	Voltage value measured from input AI1.
Decimal: 39	Analog Input 2	R	0	0 (0 V)	1000 (10 V)	Voltage value measured from input AI2.
Decimal: 40 : Decimal: 44	Reserve	-	-	-	-	-
Decimal: 45	Digital Output 1	R/W	0	0	1	This parameter shows the relay output of DO1. 0: Relay close 1: Relay open
Decimal: 46	Digital Output 2	R/W	0	0	1	This parameter shows the relay output of DO2. 0: Relay close 1: Relay open
Decimal: 47	Digital Output 3	R/W	0	0	1	This parameter shows the relay output of DO3. 0: Relay close 1: Relay open
Decimal: 48	Digital Output 4	R/W	0	0	1	This parameter shows the relay output of DO4. 0: Relay close 1: Relay open
Decimal: 49	Digital Output 5	R/W	0	0	1	This parameter shows the relay output of DO5. 0: Relay close 1: Relay open
Decimal: 50	Digital Output 6	R/W	0	0	1	This parameter shows the relay output of DO6. 0: Relay close 1: Relay open
Decimal: 51	Digital Output 7	R/W	0	0	1	This parameter shows the relay output of DO7. 0: Relay close 1: Relay open
Decimal: 52	Digital Output 8	R/W	0	0	1	This parameter shows the relay output of DO8. 0: Relay close 1: Relay open
Decimal: 53	Digital Output 9	R/W	0	0	1	This parameter shows the relay output of DO9. 0: Relay close 1: Relay open
Decimal: 54 : Decimal: 58	Reserve	-	-	-	-	-
Decimal: 59	Analog Output 1	R/W	0	0 (0 V)	100 (10 V)	This parameter adjusts the analog output voltage value.

Decimal: 60	Analog Output 2	R/W	0	0 (0 V)	100 (10 V)	This parameter adjusts the analog output voltage value.
Decimal: 61	Analog Output 3	R/W	0	0 (0 V)	100 (10 V)	This parameter adjusts the analog output voltage value.
Decimal: 62	Analog Output 4	R/W	0	0 (0 V)	100 (10 V)	This parameter adjusts the analog output voltage value.
Decimal: 63	Analog Output 5	R/W	0	0 (0 V)	100 (10 V)	This parameter adjusts the analog output voltage value.
Decimal: 64	Analog Output 6	R/W	0	0 (0 V)	100 (10 V)	This parameter adjusts the analog output voltage value.
Decimal: 65 : Decimal: 74	Reserve	-	-	-	-	-
Decimal: 75	Passive Input (IN1) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN1. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 76	Passive Input (IN2) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN2. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 77	Passive Input (IN3) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN3. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 78	Passive Input (IN4) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN4. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 79	Passive Input (IN5) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN5. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 80	Passive Input (IN6) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN6. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 81	Passive Input (IN7) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN7. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 82	Passive Input (IN8) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN8. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 83	Passive Input (IN9) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN9. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 84	Passive Input (IN10) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN10. 0: Normally Open (NO) 1: Normally Close (NC)

Decimal: 85	Passive Input (IN11) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN11. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 86	Passive Input (IN12) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN12. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 87	Passive Input (IN13) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN13. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 88	Passive Input (IN14) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN14. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 89	Passive Input (IN15) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of passive input IN15. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal: 90	Temperature Sensor Beta Value	R/W	3435	2000	6000	This parameter determines the beta value used for NTC10K temperature sensors. Note: Please note that if the value of this point is changed, it will affect all temperature inputs.
Decimal: 91 : Decimal: 92	Reserve	-	-	-	-	-
Decimal: 93	Universal Temperature Input 1	R	0	-500	1500	This NTC10K value is measured from UI1.
Decimal: 94	Universal Temperature Input 2	R	0	-500	1500	This NTC10K value is measured from UI2.
Decimal: 95	Universal Temperature Input 3	R	0	-500	1500	This NTC10K value is measured from UI3.
Decimal: 96	Universal Temperature Input 4	R	0	-500	1500	This NTC10K value is measured from UI4.
Decimal: 97	Universal Temperature Input 5	R	0	-500	1500	This NTC10K value is measured from UI5.
Decimal: 98	Universal Temperature Input 6	R	0	-500	1500	This NTC10K value is measured from UI6.
Decimal: 99	Universal Temperature Input 7	R	0	-500	1500	This NTC10K value is measured from UI7.
Decimal:100	Universal Temperature Input 8	R	0	-500	1500	This NTC10K value is measured from UI8.

Decimal:101	Universal Temperature Input 9	R	0	-500	1500	This NTC10K value is measured from UI9.
Decimal:102	Universal Temperature Input 10	R	0	-500	1500	This NTC10K value is measured from UI10.
Decimal:103	Universal Temperature Input 11	R	0	-500	1500	This NTC10K value is measured from UI11.
Decimal:104	Universal Temperature Input 12	R	0	-500	1500	This NTC10K value is measured from UI12.
Decimal:105 : Decimal:109	Rezerve	-	-	-	-	-
Decimal:110	Universal Digital Input (UI1)	R	0	0	1	Universal Digital Input state of UI1. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:111	Universal Digital Input (UI2)	R	0	0	1	Universal Digital Input state of UI2. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:112	Universal Digital Input (UI3)	R	0	0	1	Universal Digital Input state of UI3. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:113	Universal Digital Input (UI4)	R	0	0	1	Universal Digital Input state of UI4. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:114	Universal Digital Input (UI5)	R	0	0	1	Universal Digital Input state of UI5. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:115	Universal Digital Input (UI6)	R	0	0	1	Universal Digital Input state of UI6. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:116	Universal Digital Input (UI7)	R	0	0	1	Universal Digital Input state of UI7. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:117	Universal Digital Input (UI8)	R	0	0	1	Universal Digital Input state of UI8. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:118	Universal Digital Input (UI9)	R	0	0	1	Universal Digital Input state of UI9. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:119	Universal Digital Input (UI10)	R	0	0	1	Universal Digital Input state of UI10. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact

Decimal:120	Universal Digital Input (UI11)	R	0	0	1	Universal Digital Input state of UI11. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:121	Universal Digital Input (UI12)	R	0	0	1	Universal Digital Input state of UI12. NC NO 0: Closed Contact 0:Open Contact 1: Open Contact 1:Closed Contact
Decimal:122 : Decimal:126	Rezerve	-	-	-	-	-
Decimal:127	Universal Analog Input 1	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI1.
Decimal:128	Universal Analog Input 2	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI2.
Decimal:129	Universal Analog Input 3	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI3.
Decimal:130	Universal Analog Input 4	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI4.
Decimal:131	Universal Analog Input 5	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI5.
Decimal:132	Universal Analog Input 6	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI6.
Decimal:133	Universal Analog Input 7	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI7.
Decimal:134	Universal Analog Input 8	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI8.
Decimal:135	Universal Analog Input 9	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI9.
Decimal:136	Universal Analog Input 10	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI10.
Decimal:137 Hex: 0x89	Universal Analog Input 11	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI11.
Decimal:138	Universal Analog Input 12	R	0	0 (0 V)	1000 (10 V)	This voltage value is measured from input UI12.
Decimal:139 : Decimal:172	Rezerve	-	-	-	-	-
Decimal:173	Universal Input (UI1) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI1. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:174	Universal Input (UI2) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI2. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:175	Universal Input (UI3) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI3. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:176	Universal Input (UI4) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI4. 0: Normally Open (NO) 1: Normally Close (NC)

Decimal:177	Universal Input (UI5) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI5. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:178	Universal Input (UI6) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI6. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:179	Universal Input (UI7) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI7. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:180	Universal Input (UI8) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI8. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:181	Universal Input (UI9) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI9. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:182	Universal Input (UI10) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI10. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:183	Universal Input (UI11) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI11. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:184	Universal Input (UI12) Dry Contact Type Selection	R/W	0	0	1	This parameter adjusts the contact type of universal input UI12. 0: Normally Open (NO) 1: Normally Close (NC)
Decimal:185 : Decimal:189	Reserve	-	-	-	-	-
Decimal:190	Temperature Input 1 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN1 input.
Decimal:191	Temperature Input 2 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN2 input.

Decimal:190	Temperature Input 1 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN1 input.
Decimal:191	Temperature Input 2 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN2 input.
Decimal:192	Temperature Input 3 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN3 input.
Decimal:193	Temperature Input 4 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN4 input.
Decimal:194	Temperature Input 5 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN5 input.
Decimal:195	Temperature Input 6 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN6 input.
Decimal:196	Temperature Input 7 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN7 input.
Decimal:197	Temperature Input 8 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN8 input.
Decimal:198	Temperature Input 9 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN9 input.
Decimal:199	Temperature Input 10 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that read from the IN10 input.
Decimal:200	Temperature Input 11 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN11 input.
Decimal:201	Temperature Input 12 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN12 input.
Decimal:202	Temperature Input 13 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the IN13 input.
Decimal:203 : Decimal:207	Reserve	-	-	-	-	-

Decimal:208	Universal Temperature Input 1 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI1 input.
Decimal:209	Universal Temperature Input 2 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI2 input.
Decimal:210	Universal Temperature Input 3 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI3 input.
Decimal:211	Universal Temperature Input 4 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI4 input.
Decimal:212	Universal Temperature Input 5 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI5 input.
Decimal:213	Universal Temperature Input 6 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI6 input.
Decimal:214	Universal Temperature Input 7 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI7 input.
Decimal:215	Universal Temperature Input 8 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI8 input.
Decimal:216	Universal Temperature Input 9 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI9 input.
Decimal:217	Universal Temperature Input 10 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that read from the UI10 input.
Decimal:218	Universal Temperature Input 11 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI11 input.
Decimal:219	Universal Temperature Input 12 Calibration Value	R/W	0	-30	30	This parameter determines the calibration value of the NTC10K temperature sensor that is read from the UI12 input.

Dimensions(mm)