

Multi-CH Modular Type Temperature Controller

TM-XGB (RS485)

Technical Support Manual





Thank you very much for selecting Autonics products. For your safety, please read the following before using.

Preface

Thank you very much for selecting Autonics products.

Please familiarize yourself with the information contained in the **Safety Precautions** section before using this product.

This user manual contains information about the product and its proper use, and should be kept in a place where it will be easy to access.

Technical Support Manual Guide

- Please familiarize yourself with the information in this manual before using the product.
- This manual provides detailed information on the product's features. It does not offer any guarantee concerning matters beyond the scope of this manual.
- This manual may not be edited or reproduced in either part or whole without permission.
- This manual is not provided as part of the product package. Please visit our home-page (www.autonics.com) to download a copy.
- The manual's content may vary depending on changes to the product's software and other unforeseen developments within Autonics, and is subject to change without prior notice. Upgrade notice is provided through our homepage.
- We contrived to describe this manual more easily and correctly. However, if there are any corrections or questions, please notify us these on our homepage.

Technical Support Manual Symbols

| Symbol | Description |
|-----------|--|
| Note | Supplementary information for a particular feature. |
| Å Warning | Failure to follow instructions can result in serious injury or death. |
| A Caution | Failure to follow instructions can lead to a minor injury or product damage. |
| Ex. | An example of the concerned feature's use. |
| ×1 | Annotation mark. |

Safety Precautions

- Following these safety precautions will ensure the safe and proper use of the product and help prevent accidents, as well as minimizing possible hazards.
- Safety precautions are categorized as Warnings and Cautions, as defined below:

| Warning Warning | | Failure to follow the instructions may lead to a serious injury or accident. |
|-----------------|---------|--|
| | | |
| A Caution | Caution | Failure to follow the instructions may lead to a minor injury or accident. |



- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)
 - Failure to follow this instruction may result in personal injury, fire, or economic loss.
- The unit must be installed on a device panel before use.
 Failure to follow this instruction may result in electric shock.
- Do not connect, repair, or inspect the unit while connected to a power source.
 Failure to follow this instruction may result in electric shock.
- Check the input power specifications and terminal polarity for correct connecting the power source.
 - Failure to follow this instruction may result in fire.
- Do not disassemble or modify the unit. Please contact us if necessary.
 Failure to follow this instruction may result in electric shock or fire.

🔼 Caution

Do not use the unit outdoors.

Failure to follow this instruction may result in shortening the life cycle of the unit, or electric shock.

- When connecting the power input and relay output cables, use AWG20 (0.5mm²) cables.
 Failure to follow this instruction may result in fire due to contact failure.
- Use the unit within the rated specifications.
 Failure to follow this instruction may result in shortening the life cycle of the unit, or fire.
- Do not use loads beyond the rated switching capacity of the relay contact.
 Do not use water or oil-based detergent when cleaning the unit. Use dry cloth to clean the unit.
- Do not use water or oil-based detergent when cleaning the unit. Use dry cloth to clean the unit.

Failure to follow this instruction may result in electric shock or fire.

- Do not use the unit where flammable or explosive gas, humidity, direct sunlight, radiant heat, vibration, or impact may be present.
 - Failure to follow this instruction may result in fire or explosion.
- Keep dust and wire residue from flowing into the unit.
 Failure to follow this instruction may result in fire or product damage.

- Check the polarity of the measurement input contact before wiring the temperature sensor. Failure to follow this instruction may result in fire or explosion.
- For installing the unit with reinforced insulation, use the power supply unit which basic level is ensured.

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1 System

1.1 Version

| Software | Version | Note |
|------------------|-----------|----------------------|
| Operating system | Windows 7 | - |
| XG 5000 | V4.07 | Release : 2016.03.29 |

1.2 Connections



1.3 Communication connection and multi module connection



When using the port A, only single module is available.

For using single/multi module, use the port B.

2 TM4 Communication Setting

2.1 TM4 Setting

1st TM4 is multi-channel temperature controller. You can set the parameter settings by DAQMaster, the dedicated comprehensive device management program. (address setting is available to adjust by the communication address setting switch (SW1), communication address group switch (SW2) of the unit)

| 2nd | Indicators | for | initial | power ON |
|-----|------------|-----|---------|----------|
| | | | | |

| Status Indicator | Initial power ON | Control output | Auto-tuning |
|---------------------|------------------|-------------------|-------------|
| PWR (green) | ON | ON | ON |
| CH1 (red) | Flash (2400bps) | ON | Flash |
| CH2 (red) | Flash (4800bps) | ON | Flash |
| CH3 (yellow) | Flash (9600bps) | ON | Flash |
| CH4 (yellow) | Flash (19200bps) | ON | Flash |
| | Flash (38400bps) | - | - |

* When power is supplied initially, the set communication speed LED flashes for 5 sec.

* The auto-tuning CH LED flashes for 1 sec in turn.

* The PWR LED flashes during communication for 1 sec in turn.

3rd Communication settings are available at Communication Setting of at DAQMaster.

| Model Name | TM4-N2RB | |
|-----------------------|----------|---|
| Baudrate | 38400 | - |
| Parity Bit | NONE | - |
| Stop Bit | 2 | - |
| Response Waiting Time | 20 | _ |
| Communication Write | ENABLE | - |
| Parameter Initialize | NO | - |
| | | |

| Item | Setting | Note |
|--------------------------|---------|--------------|
| Baudrate | 38400 | User setting |
| Parity Bit | None | User setting |
| Stop Bit | 2 | User setting |
| Response Waiting Time | 20 | User setting |
| Communication Write | Enable | Fixed |

2.2 XGB Setting

1st Run XG5000, and select [Project] – [New Project] on menu. Enter project name and select CPU Series and type.

| New Project | | <u>?</u> × |
|---------------------|--------------------|------------|
| Project name: | TM4(XGB) | ОК |
| File directory: | C:₩XG5000₩TM4(XGB) | Cancel |
| CPU Series | XGB Product Nam |)e |
| CPU type: | XGB-XBCH | ation |
| Program name: | NewProgram | |
| Program langua | | |
| Project description | 1: | |
| | | _ |
| | | |
| | | |
| | | |

| 2nd After executing. | enter the below contents | at XG5000. |
|-------------------------|--------------------------|--------------|
| End / alor of ooddanig, | | ac / COOOOO. |

* This communication program is only for test. Before using it at field, review and test the program fully.

| | , | | MOV | M0000 | D00000 |
|---------|--------|----|---------|--------|--------|
| | | | MOV | M0006 | D00001 |
| | 3 | | MOV | M0012 | D00002 |
| | - | | MOV | M0018 | D00003 |
| | | | MOV | M0050 | D00004 |
| | | | MOV | M0056 | D00005 |
| | | | MOV | M0062 | D00006 |
| | | | MOV | M0068 | D00007 |
| | | | MOV | D00200 | D00100 |
| | | | MOV | D00201 | D00101 |
| | 2 | | MOV | D00202 | 000102 |
| | | | MOV | D00203 | 000103 |
| | | | MOV | D00204 | D00104 |
| | | | MOV | D00205 | D00105 |
| | | | MOV | D00206 | D00106 |
| | | | MOV | D00207 | D00107 |
| _T200MS | 8 | | | INCP | D01001 |
| 4 = | D01001 | 0 | | | M01000 |
| 4 = | D01001 | 1 | | | M01001 |
| = | D01001 | 2 | | | M01002 |
| _ = | D01001 | 3 | | | M01003 |
| = | D01001 | 4 | | | M01004 |
| = | D01001 | 5 | | | M01005 |
| = | D01001 | 6 | | | M01006 |
|] = | D01001 | 7 | | | M01007 |
| 4 = | D01001 | 8 | | | M01008 |
| 1 | D01001 | 9 | MOVP | 0 | |
| | | 19 | | | END |

3rd After writing program, execute P2P communication at 'Project' window.

| Project | | ▼ 4 × | NewProgram X |
|---|---|----------|-------------------------------|
| □ - 疆 TM4(XGB) □ - 疆 Network □ - 鋼 Unsp | * Configuration ecified Network ewPLC [B0S0 Internal C | net] | |
| ⊟- 🍘 Syst ⊡- 🗂 Nev | Open | | |
| | Add Item | <u> </u> | Network |
| | Сору | Ctrl+C | Communication Module |
| _1 6 | Paste | Ctrl+V | P2P Communication |
| | Delete | Delete | High-speed Link Communication |
| | Properties | | Add a Group |
| | Communication module s | setting | Add Slave |
| | | | |

4th You can check the added P2P setting window below standard network. Doulble-click NewPLC[B0S0 Internal Cnet] and [Standard Settings – Cnet] dialog box is available.



| ltem | | Setting | Note |
|----------------------|-----------------------|---------|--------------|
| Standard Settings | Communication type | RS-485 | Fixed |
| | Communication speed | 38400 | User setting |
| Channel 2 | Terminating resisters | Disable | User setting |
| | Station No. | 1 | User setting |
| Operation mode | Channel 2 | Use P2P | |

5th [Standard Settings-Cnet] dialog box appears. At standard settings, set as below.

| tandard Settings – | Cnet | × |
|-----------------------|-----------------|-----------------|
| Standard Settings Ad | vanced Settings | |
| Connection Settings | Channel 1 | Channel 2 |
| Type: | RS232C 💌 | RS485 💌 |
| Speed: | 9600 💌 | 38400 💌 |
| Terminating Resisters | Disable | Disable |
| Station No.: | 0 | 1 |
| | | |
| | | |
| Channel 1: XGT ser | ver 🔻 | Modbus Settings |
| Channel 2: Use P2 | · • | Modbus Settings |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | OK Cancel |

6th At advanced settings, set as below.

| ltem | | Channel 2 |
|-------------------|------------|-----------|
| | Data bit | 8 |
| Advanced settings | Stop bit | 2 |
| | Parity bit | NONE |

| Channel 1 8 1 VONE V Disable V Null Modem V | Channel 2 8 2 NONE Disable Null Modem |
|---|---|
| 8 1 NONE Disable Null Modem | 8 • 2 • NONE • Disable • Null Modem • |
| 1 NONE Disable Vull Modem | 2 NONE Disable VIII Modem |
| NONE Disable Null Modem | NONE Disable Null Modem |
| Disable 💌 | Disable Null Modem |
| Null Modem 💌 | Null Modem 💌 |
| | |
| | |
| | |
| 1 | 1 |
| 0 | 0 |
| 1 | 1 |
| 1 | |

7th At project window, set Modbust RTU client for P2P client and move to P2P block.
Channel Setting

| Inanine | Operation Mode | P2P Driver | TCP/UDP | Client/Server | Partner Port | Partner IP address |
|---------|----------------|-------------------|---------|---------------|--------------|--------------------|
| 1 | XGT server | | | | | |
| 2 | Use P2P | Modbus RTU client |] | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

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8th Below P2P channel, double-click 'P2P block' and set as below.

| Index | Ch | Driver Setting | P2P function | Conditional flag | Command type | Data type | No. of variables | Data size | Destina tion station | Destination station number | Frame | Setting | Variable setting contents |
|-------|----|-------------------|--------------|------------------|--------------|-----------|------------------|-----------|----------------------------|---|-------|---------|--|
| 0 | 2 | Modbus RTU client | READ | M01000 | Continuous | WORD | 1 | 19 | 2 | 1 |) (ס | Setting | Number:1 READ1:0x303E8,SAVE1:M0000 |
| 1 | 2 | Modbus RTU client | READ | M01001 | Continuous | WORD | 1 | 19 | ন | 2 | PV | Setting | Number:1 READ1:0x303E8,SAVE1:M0050 |
| 2 | 2 | Modbus RTU client | WRITE | M01002 | Single | WORD | 1 | | ঘ | 1 | | Setting | Number:1 READ1:D00100,SAVE1:0x40000 |
| 3 | 2 | Modbus RTU client | WRITE | M01003 | Single | WORD | 1 | | ন | 1 | | Setting | Number:1 READ1:D00101,SAVE1:0x403E8 |
| 4 | 2 | Modbus RTU client | WRITE | M01004 | Single | WORD | 1 | | ম | 1 | | Setting | Number:1 READ1:D00102.SAVE1:0x407D0 |
| 5 | 2 | Modbus RTU client | WRITE | M01005 | Single | WORD | 1 | | ম | 1 | SV | Setting | Number:1 READ1:D00103,SAVE1:0x40888 |
| 6 | 2 | Modbus RTU client | WRITE | M01006 | Single | WORD | 1 | | ম | 2 | | Setting | Number:1 READ1:D00104,SAVE1:0x40000 |
| 7 | 2 | Modbus RTU client | WRITE | M01007 | Single | WORD | 1 | | অ | 2 | | Setting | Number:1 READ1:D00105,SAVE1:0x403E8 |
| 8 | 2 | Modbus RTU client | WRITE | M01008 | Single | WORD | 1 | | ম | 2 | | Setting | Number:1 READ1:D00106,SAVE1:0x407D0 |
| 9 | 2 | Modbus RTU client | WRITE | M01009 | Single | WORD | 1 | | 4 | 2 | | Setting | Number:1 READ1:D00107,SAVE1:0x40888 |
| | | | | | | | | | | Contraction of the second second second | | | |

| СН | P2P function | Conditional flag | Command type | Data type | Data size | Destination station number |
|----|-----------------|---------------------|-----------------|-----------|-----------|----------------------------------|
| 2 | READ (PV) | M1000 | 2. Continuous | WORD | 19 | 1 |
| 2 | READ (PV) | M1001 | 2. Continuous | WORD | 19 | 2 |
| 2 | WRITE (SV) | M1002 to M1005 | 1. Single | WORD | 1 | 1 |
| 2 | WRITE (SV) | M1006 to M1009 | 1. Single | WORD | 1 | 2 |

* Device matching

| TM4 | PLC | Description |
|--------|-------|-----------------------------------|
| ①03E8 | M0000 | CH1 present value |
| 203E9 | M0001 | CH1 sensor decimal point position |
| | | |
| ⑦03EE | M0006 | CH2 present value |
| | | |
| 1303F4 | M0012 | CH3 present value |
| | | |
| 1903FA | M0018 | CH4 present value |

9th Variable settings * <u>PV</u> setting

| Station | Read area (setting) | Save area (setting) | Address (fixed) |
|-----------|------------------------|------------------------|--------------------|
| Station 1 | 0x303E8 | M0000 | N00021 |
| Station 2 | 0x303E8 | M0050 | N00062 |
| | | | |

| Address | Туре | Note |
|---------------|------|---------------|
| 301001 (03E8) | PV | Present value |

| ۷ | ariable | Setting | | × | 1 | Variable | Setting | | | × |
|-----------------------------|------------------------|---|---------|--------|---|------------------------|---|---------|--------|---|
| | Read area Save area | a: Remote Address a: Local Address (Ne | ewPLC) | | | Read area Save area | : Remote Address : Local Address (Ne | wPLC) | | |
| Read area Save area Address | | | Address | Ш | | Read area | Save area | Address | ТΙ | |
| | 1 | 0x303E8 | M0000 | N00021 | Ш | 1 | 0x303E8 | M0050 | N00062 | |
| | | | | | Ш | | | | | |
| | | | | | | | | | | |
| | | | | | L | | | | | |
| | | | | | L | | | | | |
| | | | | | | | | | | |
| | | | ОК | Cancel | | | | ОК | Cancel | |

- Read Input Register (Func : 04, RW : R)

| No(Address) | | Decemeter | Description | Sotting Dange | Unit | Factory |
|-----------------------------------|---------------------------------|-------------------------|---|--|-------|---------|
| TM2 | TM4 | Parameter Description S | | Setung Range | Onit | Defaul |
| 301001(03E8) | 301001(03E8) | CF11 Present Value | Present Value | Input range by sensor type 31000: OPEN 30000: HHHH -30000: LLLL | °C/°F | - |
| 301002(03E9) | 301002(03E <mark>\$</mark>) | CF 1 Dot | Sensor's Decimal Point | 0: 0 1: 0.0 | -1 | 0 |
| 301003(03EA) | 301003(03EA) | CI-1 Unit | Sensor's Temperature Unit | 0: ℃ 1: ℉ | -2 | 0 |
| 301004(03EB) | 301004(03EE) | CF1 Set Value | Temperature Setting Value controlled currently | SV Low Limit~SV High Limit | °C/°F | 0 |
| 301005(03EC) | 301005(03EC) | CH1 Heating_MV | Heating MV | 0.0~100.0 | % | ÷ |
| 301006(03ED) | 301006(03E0) | CH1 Cooling_MV | Cooling MV | 0.0~100.0 | % | - |
| 301007(03EE) ~301012(03F3) | 301007(03EE) ~301012(03F3) | CF2 Parameter - th | e same as above CH1 | | | |
| - | 301013(03F4) ~301018(03F9) | CF 3 Parameter th | e same as above CH1 | | | |
| - | 301019(03F4) - ~301024(03FF) | CH4 Parameter th | e same as above CH1 | | | |

First address : 03E8, Number of consecutive reading : 03E8 to 03FA (19)

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* SV setting

| Address | Туре | Note | | | |
|--------------|------|---------------|--|--|--|
| 400001(0000) | SV | Setting value | | | |



| No(Address) | | | | o | | Factory | | | | |
|-------------------------------|-------------------------------|--|---|----------------------------|------|---------|--|--|--|--|
| TM2 | TM4 | Parameter | Description | Setting Range | Unit | Default | | | | |
| 400001(0000) | 400001(0000) | CH1 SV | Temperature Setting Value controlled currently | SV Low Limit~SV High Limit | ℃/°F | 0 | | | | |
| 400002(0001) | 400002(0001) | CH1 Heating_MV | Heating MV | 0.0~100.0 | % | - | | | | |
| 400003(0002) | 400003(0002) | CH1 Cooling_MV Cooling MV 0 | | 0.0~100.0 | % | - | | | | |
| 400004(0003) | 400004(0003) | CH1 Auto-Manual Control | Auto/Manual Control | 0: AUTO 1: MANUAL | - | AUTO | | | | |
| 400005(0004) ~400050(0031) | 400005(0004) ~400050(0031) | CH1 Reserved | | | | | | | | |
| 401001(03E8) ~401050(0419) | 401001(03E8) ~401050(0419) | CH2 Parameter – the same as above CH1 | | | | | | | | |
| - | 402001(07D0) | CU2 Decemptor th | a sama as shave CH1 | | | | | | | |
| | ~402050(0801) | CH3 Falameter - th | CH3 Parameter - the same as above CH1 | | | | | | | |
| - | 403001(0BB8) | CH4 Parameter th | e same as above CH1 | | | | | | | |
| | ~403050(0BE9) | one raidificier - une same as above on i | | | | | | | | |

Enter the settings by each channel after checking the address.

| Station (CH) | Address | Station (CH) | Address | | |
|-----------------|---------|-----------------|---------|--|--|
| Station 1 (CH1) | 0000 | Station 2 (CH1) | 0000 | | |
| Station 1 (CH2) | 03E8 | Station 2 (CH2) | 03E8 | | |
| Station 1 (CH3) | 07D0 | Station 2 (CH3) | 07D0 | | |
| Station 1 (CH4) | 0BB8 | Station 2 (CH4) | 0BB8 | | |

10thAt [Online] – [Connection Settings], select connection type.

| Type: | USB | • | Settings |
|------------|-----------------|--------------|----------|
| Depth: | Local | | Preview |
| General | | | |
| Timeout | interval: | 5 | sec |
| Retrial ti | mes: | 1 | times |
| Read / \ | Nrite data size | in PLC run | mode |
| C No | ormal 💽 M | aximum | |
| * *** | | n cina in ch | n mode |

11th Select [Online] - [Write] to execute download.

3 Operation Check

| | | | | | | | | | | | 2 | 272 | 2 | 72 | |
|------|-----------------------|--------|---------------------------------------|---|-------|----------|-------|------|-----|---------|----|------|---------------------------------------|-------------------|-----|
| | | | | | | | | | | MOV | M | 0000 | DO | 0000 | L |
| | · | | | | | | | | | | | | | | ٢. |
| | | | | | | | | | Г | MOV | M | 0008 | DO | 0001 | 1 |
| | | | | | ; | | | | | | | | | | - |
| | | | | | | | | | Г | MOV/ | W | 27 | 00 | <u>27</u> 0002 | 1 |
| | | | | | | 1 | | | —L | | | | | | - |
| | | | | | | | | | Г | | | 28 | | 28 | 1 |
| | | | | | _ | | | | —-L | MOV | M. | 0018 | DO | 0003 | 1 |
| | | | | | | | | | _ | | | 28 | | 28 | - |
| | | | | | | | | | —-L | MOV | M | 0050 | DO | 0004 | ł |
| | | | | | | | | | _ | | | 0 | | 0 | |
| | | | | | | | | | | MOV | M | 0058 | DO | 0005 | L |
| | | | | | | | | | | | | 28 | ÷ | 28 | |
| | | | | | | | | | Г | MOV | M | 0062 | DO | 0006 | 1 |
| | | | | | | + | | | | | | | | | - |
| | | | | | | | | | Г | MOV/ | | 20 | 00 | 20 0007 | 1 |
| | | | | | | | | | —L | | | | | | - |
| | | | | | | | | | Г | | | 0 | | 0 | 1 |
| | | | | | | | _ | | L | MOV | DO | 0200 | DO | 0100 | 1 |
| | | | | | | | | | _ | | | 30 | | 30 | |
| | | | | | | | | | —-L | MOV | DO | 0201 | DO | 0101 | L |
| | | | | | | | | | | | | 55 | | 55 | |
| | | | | | | <u> </u> | | | | MOV | DO | 0202 | DO | 0102 | L |
| | | | | | | | | | | | | | · • • • • • • | | Ĩ., |
| | | | | | | | | | Г | MOV | DO | 0208 | DO | 0108 | 1 |
| | | | | | | 1 | | | | | | | | | - |
| | | | | | | | | | Г | 14704 | ~ | 70 | | 70 | 1 |
| | | | | | _ | | | | —-L | MOV | | 0204 | | 0104 | ┢ |
| | | | | | | | | | Г | | | 80 | 8 | 30 | 1 |
| | | | | | | <u>+</u> | + | | —-L | MOV | DO | 0205 | DO | 0105 | L |
| | | | | | | | | | | | | 80 | | 30 | |
| | | | | | | | | | L | MOV | DO | 0206 | DO | 0106 | L |
| | | | | | | | | | | | | 55 | · · · · · · · · · · · · · · · · · · · | 55 | |
| | | | | | | | | | | MOV | DO | 0207 | DO | 0107 | L |
| | | | | | | | | | _ | | | | | 7 | 1 |
| | T200MS | | | | | | | | | | 1 | NCP | DO | 1001 | L |
| | · · · · · · · · · · · | | | | | | | | | | | | | | - |
| 1 | | - | - | 1 | | | | | | | | | MOT | 1000 | |
| - | - | 001001 | | H | | - | - | | | | | | | ₽)— | - |
| | | 7 | | | | | | | | | | | | | |
| 1 | = | D01001 | 1 | L | | | | | | | | | | 1001 P > | |
| | | 7 | | | | | | | | | | | | | |
| 1 | _ | 001001 | - | 1 | | | | | | | | | MOT | 1002 | |
| -1 | - | 501001 | 2 | H | | | | | | | | | | ₽)— | - |
| | | 7 | | | | | | | | | | | | 000 | |
| 4 | = | D01001 | 8 | L | | | | | | | _ | | | | |
| | | 7 | | | | | | | | | | | | | |
| 1 | _ | 001001 | | 1 | | | | | | | | | MO | 1004 | |
| - | | 501001 | | H | | 1 | j | | | | | | (| ₽) <u> </u> | _ |
| | | 7 | | | | | | | | | | | | | |
| 1 | = | D01001 | 5 | L | | | | | | | | | | 1005 P > | |
| ···· | | 7 | | | | | | | | | | | | | |
| 1 | - | 001001 | | 1 | | | | | | | | | MOT | 1006 | |
| - | | 001001 | | H | | | | | | | | | (| P) | |
| | | 7 | | | | | | | | | | | | | |
| | = | D01001 | 7 | | | | | | | | | | (| P) | |
| | | 7 | | | | | | | | | | | | | |
| 1 | - | 001001 | | 1 | | | | | | | | | MO | 8001 | |
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D00000 to D00003 are present temperature values of CH1 to CH4 at station 1. D00004 to D00007 are present temperature values of CH1 to CH4 at station 2. D00100 to D00103 are setting values of CH1 to CH4 at station 1. D00104 to D00107 are setting values of CH1 to CH4 at station 2.



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Dimensions or specifications on this manual are subject to change and some models may be discontinued without notice.

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