

User Manual for Communication

Counters/Timers

CT Series

MCC-CTC1-V1.3-EN

Thank you for purchasing an Autonics 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.

Preface

Thank you for purchasing an Autonics product.

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.

User 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.
- A user manual is not provided as part of the product package.
Visit our web site (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 out 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.

Communication Protocol

CT Series is accepted to Modbus RTU Protocol.

Users should be aware that it does not support a broadcast command.

User Manual Symbols

Symbol	Description
 Note	Supplementary information for a particular feature.
 Warning	Failure to follow instructions can result in serious injury or death.
 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.
--	----------------	--

 Caution	Caution	Failure to follow the instructions may lead to a minor injury or accident.
--	----------------	--



Warning

- 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 fire, personal injury, or economic loss.
- Install on a device panel to use.
Failure to follow this instruction may result in electric shock or fire.
- Do not connect, repair, or inspect the unit while connected to a power source.
Failure to follow this instruction may result in electric shock or fire.
- Check 'Connections' before wiring.
Failure to follow this instruction may result in fire.
- Do not disassemble or modify the unit.
Failure to follow this instruction may result in electric shock or fire.



Caution

- When connecting communication, the power/sensor input and relay output, use AWG 20 (0.50mm²) cable or over, and tighten the terminal screw with a tightening torque of 0.74 to 0.90N.m.
Failure to follow this instruction may result in fire or malfunction due to contact failure.
- Use the unit within the rated specifications.
Failure to follow this instruction may result in fire or product damage.
- Use dry cloth to clean the unit, and do not use water or organic solvent.
Failure to follow this instruction may result in electric shock or fire.
- Do not use the unit in the place where flammable/explosive/corrosive gas, humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.
Failure to follow this instruction may result in fire or explosion.
- Keep metal chip, dust, and wire residue from flowing into the unit.
Failure to follow this instruction may result in fire or product damage.

The specifications of communication manual are subject to change and some models may be discontinued without notice.

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1 Modbus RTU Protocol

Modbus is an industrial protocol developed in 1979 for serial communication between devices. Its functionality has gradually expanded to allow implementation in TCP/IP and UDP environments, and it is now widely used for simple, stable, and efficient communication in various network environments. This protocol has become the standard communication method in industrial automation systems, SCADA (Supervisory Control and Data Acquisition systems), and other industrial networks.

Modbus RTU transmits data in a continuous binary format, making it more efficient and faster than ASCII transmission. The frame structure does not clearly distinguish the start and end, but defines the start and end by leaving a silent interval (3.5 character times) between frames.



For more detailed information about Modbus protocol, refer to the documentation provided by the developer.

1.1 Function Code Frame Structure

1.1.1 01 (0x01) Read Coil Status

Reads the ON/OFF status of output (0X reference, coil) in the slave device.

Request frame (master)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x01 (Read Coil Status)
Starting address	2-byte	Starting address of the coil to be read
Quantity of coils	2-byte	Number of coils
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a request frame

Slave address	Function code	Starting address		Quantity of coils		CRC check		
1-byte	1-byte	High	Low	High	Low	Low	High	
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	
CRC-16								

Response frame (slave)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x01 (Read Coil Status)
Byte count	1-byte	Number of bytes in the returned data
Coil status	N-byte	The status of the requested coils is represented. Each coil's status is represented by 1 bit, and 8 coil statuses are grouped into 1 byte. N = number of coils / 8 If the remainder is not zero when divided by 8: N = N + 1
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a response frame

Slave address	Function code	Byte count	Coil status	CRC check	
1-byte	1-byte	1-byte	N × byte	Low	High
				1-byte	1-byte
CRC-16					

1.1.2 02 (0x02) Read Input Status

Reads the ON/OFF status of input (1X reference) in the slave device.

Request frame (master)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x02 (Read Input Status)
Starting address	2-byte	Starting address of the input to be read
Quantity of inputs	2-byte	Number of inputs
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a request frame

Slave address	Function code	Starting address		Quantity of inputs		CRC check	
1-byte	1-byte	High	Low	High	Low	Low	High
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							

Response frame (slave)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x02 (Read Input Status)
Byte count	1-byte	Number of bytes in the returned data
Input status	N-byte	The status of the requested inputs is represented. Each input's status is represented by 1 bit, and 8 input statuses are grouped into 1 byte. N = number of inputs / 8 If the remainder is not zero when divided by 8: N = N + 1
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a response frame

Slave address	Function code	Byte count	Input status	CRC check	
1-byte	1-byte	1-byte	N × byte	Low	High
				1-byte	1-byte
CRC-16					

1.1.3 03 (0x03) Read Holding Registers

Reads the binary data of holding registers (4X reference) in the slave device.

Request frame (master)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x03 (Read Holding Registers)
Starting address	2-byte	Starting address of the first register to be read
Quantity of registers	2-byte	Number of registers
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a request frame

Slave address	Function code	Starting address		Quantity of registers		CRC check	
1-byte	1-byte	High	Low	High	Low	Low	High
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							

Response frame (slave)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x03 (Read Holding Registers)
Byte count	1-byte	Number of bytes in the returned data (Number of registers read × 2-byte)
Register value	N × 2-byte	The values of the requested registers are represented. Each register is represented by 2 bytes. N is determined by the number of requested registers.
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a response frame

Slave address	Function code	Byte count	Register value		CRC check	
1-byte	1-byte	1-byte	High	Low	Low	High
			1-byte	1-byte	1-byte	1-byte
CRC-16						

1.1.4 04 (0x04) Read Input Registers

Reads the binary data of input registers (3X reference) in the slave device.

Request frame (master)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x04 (Read Input Registers)
Starting address	2-byte	Starting address of the first input register to be read
Quantity of input registers	2-byte	Number of input registers
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a request frame

Slave address	Function code	Starting address		Quantity of input registers		CRC check	
1-byte	1-byte	High	Low	High	Low	Low	High
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							

Response frame (slave)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x04 (Read Input Registers)
Byte count	1-byte	Number of bytes in the returned data (Number of registers read × 2-byte)
Register value	N × 2-byte	The values of the requested input registers are represented. Each register is represented by 2 bytes. N is determined by the number of requested registers.
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a response frame

Slave address	Function code	Byte count	Register value		CRC check	
1-byte	1-byte	1-byte	High	Low	Low	High
			1-byte	1-byte	1-byte	1-byte
CRC-16						

1.1.5 05 (0x05) Force Single Coil

Forces a single coil (0X reference) to either ON (0xFF00) or OFF (0x0000) status in the slave device.

Request frame (master)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x05 (Force Single Coil)
Coil address	2-byte	Address of the coil to be forced
Force data	2-byte	Sets or resets the coil. (0xFF00 = ON, 0x0000 = OFF)
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a request frame

Slave address	Function code	Coil address		Force data		CRC check	
1-byte	1-byte	High	Low	High	Low	Low	High
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							

Response frame (slave)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x05 (Force Single Coil)
Coil address	2-byte	Address of the coil that was forced
Force data	2-byte	The status of the coil is represented. (0xFF00 = ON, 0x0000 = OFF)
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a response frame

Slave address	Function code	Coil address		Force data		CRC check	
1-byte	1-byte	High	Low	High	Low	Low	High
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							

1.1.6 06 (0x06) Preset Single Register

Writes the binary data to a single holding register (4X reference) in the slave device.

Request frame (master)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x06 (Preset Single Register)
Register address	2-byte	Address of the register to be preset
Preset data	2-byte	Value to be preset
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a request frame

Slave address	Function code	Register address		Preset data		CRC check	
1-byte	1-byte	High	Low	High	Low	Low	High
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							

Response frame (slave)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x06 (Preset Single Register)
Register address	2-byte	Address of the register that was preset
Preset data	2-byte	Value preset to the register
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a response frame

Slave address	Function code	Register address		Preset data		CRC check	
1-byte	1-byte	High	Low	High	Low	Low	High
		1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							

1.1.7 16 (0x10) Preset Multiple Registers

Writes the binary data continuously to multiple holding registers (4X reference) in the slave device.

Request frame (master)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x10 (Preset Multiple Registers)
Starting address	2-byte	Starting address of the first register to be preset
Quantity of registers	2-byte	Number of registers to be preset
Byte count	1-byte	Number of bytes for the register values to be preset (Number of registers to be preset × 2-byte)
Register values	N × 2-byte	The values of the registers to be preset are represented. N is determined by the number of registers to be preset.
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a request frame

Slave addr.	Func. code	Starting addr.		Quantity of registers		Byte count	Register values		CRC check	
		High	Low	High	Low		High	Low	Low	High
1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16										

Response frame (slave)

Frame element	Data size	Description
Slave address	1-byte	Address of the slave device
Function code	1-byte	0x10 (Preset Multiple Registers)
Starting address	2-byte	Starting address of the first register that was preset
Quantity of registers	2-byte	Number of registers that were preset
CRC check	2-byte	Adds a CRC-16 checksum at the end of the frame to verify data integrity.

Example of a response frame

Slave address	Function code	Starting address		Quantity of registers		CRC check	
		High	Low	High	Low	Low	High
1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	1-byte	1-byte
CRC-16							



Except when downloading parameters with predefined minimum, maximum, or default values based on the input specifications in the PC loader program, it is recommended to use Preset Single Register rather than Preset Multiple Registers when connecting to external devices such as PLCs or graphic panels.

1.2 Exception Handling

In case of a communication error, the slave device sets the highest bit of the received function code to 1 in its response. It then sends only the exception code, without including any data related to the original request.

Exception response frame

Slave address	Function code + 0x80	Exception code	CRC check
1-byte	1-byte	1-byte	2-byte
CRC-16			

Exception codes

Exception code	Code name	Description
01	ILLEGAL FUNCTION	If the command is not supported.
02	ILLEGAL DATA ADDRESS	If the requested data address is invalid. (e.g. The data address does not exist or the address range is incorrect.)
03	ILLEGAL DATA VALUE	If the requested data value is invalid. (e.g. The data value is out of the allowable range.)
04	SLAVE DEVICE FAILURE	If the parameter is locked, communication write is prohibited, or the command cannot be processed correctly.
06	SLAVE DEVICE BUSY	If the device is in a state where it cannot execute the requested command.

2 Modbus Mapping Table

2.1 Reset/Output

No (Address)	Func	Explanation	Setting range	Notice
000001 (0000)	01/05	Reset ^{※1}	0: <i>oFF</i> 1: <i>oN</i>	-
000002 (0001)	01	OUT2 output	0: <i>oFF</i> 1: <i>oN</i>	-
000003 (0002)	01	OUT1 output	0: <i>oFF</i> 1: <i>oN</i>	-
000004 (0003)	01	BATCH output	0: <i>oFF</i> 1: <i>oN</i>	For BATCH output model
000005 (0004)	01/05	BATCH resets ^{※1}	0: <i>oFF</i> 1: <i>oN</i>	For BATCH output model



Note

※1: For Reset/BATCH resets ON using Func.05, input FF00 H to DATA.
For more information, refer to '1.5 Force Single Coil (Func 05-05 H).

2.2 Terminal input status

No (Address)	Func	Explanation	Setting range	Notice
100001 (0000)	02	INA input status	0: <i>oFF</i> 1: <i>oN</i>	Terminal input status
100002 (0001)	02	INB input status	0: <i>oFF</i> 1: <i>oN</i>	Terminal input status
100003 (0002)	02	INHIBIT input status	0: <i>oFF</i> 1: <i>oN</i>	Terminal input status
100004 (0003)	02	RESET input status	0: <i>oFF</i> 1: <i>oN</i>	Terminal input status
100005 (0004)	02	BATCH RESET input status	0: <i>oFF</i> 1: <i>oN</i>	Terminal input status

2.3 Product Information

No (Address)	Func	Explanation	Notice
300001 to 300100	04	Reserved	-
300101 (0064)	04	Product number H	Model ID
300102 (0065)	04	Product number L	
300103 (0066)	04	Hardware version	-
300104 (0067)	04	Software version	-
300105 (0068)	04	Model no. 1	"CT"
300106 (0069)	04	Model no. 2	"6M"
300107 (006A)	04	Model no. 3	"-2"
300108 (006B)	04	Model no. 4	"PT"
300109 (006C)	04	Reserved	-
300110 (006D)	04	Reserved	-
300111 (006E)	04	Reserved	-
300112 (006F)	04	Reserved	-
300113 (0070)	04	Reserved	-
300114 (0071)	04	Reserved	-
300115 (0072)	04	Reserved	-
300116 (0073)	04	Reserved	-
300117 (0074)	04	Reserved	-
300118 (0075)	04	Coil Status Start Address	0000
300119 (0076)	04	Coil Status Quantity	-
300120 (0077)	04	Input Status Start Address	0000
300121 (0078)	04	Input Status Quantity	-
300122 (0079)	04	Holding Register Start Address	0000
300123 (007A)	04	Holding Register Quantity	-
300124 (007B)	04	Input Register Start Address	0064
300125 (007C)	04	Input Register Quantity	-

2.4 Monitoring data

No (Address)	Func	Explanation	Setting range	Notice
301001 (03E8)	04	BA.O LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 5
		OUT2 LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 6
		OUT1 LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 7
		BA.S LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 10
		LOCK LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 11
		PRESET2 LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 12
		PRESET1 LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 13
		TMR LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 14
		CNT LED display status	0: <i>oFF</i> 1: <i>oN</i>	Bit 15
301002 (03E9)	04	Present value of BATCH counter	0 to 999999	For BATCH output model
301003 (03EA)				
301004 (03EB)	04	Present value of counter/timer	Counter 6-digit type: -99999 to 999999 4-digit type: -999 to 9999 Timer: within time setting range	Use counter and timer in common
301005 (03EC)				
301006 (03ED)	04	Display unit	Counter : decimal point of display value Timer: time range	Counter: 400058 data Timer: 400102 data
301007 (03EE)	04	PRESET2 setting value	Counter 6-digit type: -99999 to 999999 4-digit type: -999 to 9999 Timer: within time setting range	Use counter and timer in common
301008 (03EF)		PRESET setting value		
301009 (03F0)	04	PRESET1 setting value	Counter 6-digit type: -99999 to 999999 4-digit type: -999 to 9999 Timer: within time setting range	
301010 (03F1)				
301011 (03F2)	04	Setting value of BATCH counter	0 to 999999	
301012 (03F3)				
301013 (03F4)	04	Checking the input logic	0: <i>nPn</i> 1: <i>PnP</i>	-



Note

Data format of 301001(03E8) address bit.

Bit	Explanation	Data
Bit 0	-	0
Bit 1	-	0
Bit 2	-	0
Bit 3	-	0
Bit 4	-	0
Bit 5	BA.O	0 or 1
Bit 6	OUT2	0 or 1
Bit 7	OUT1	0 or 1
Bit 8	-	0
Bit 9	-	0
Bit 10	BA.S	0 or 1
Bit 11	Lock	0 or 1
Bit 12	PRESET2	0 or 1
Bit 13	PRESET1	0 or 1
Bit 14	TMR	0 or 1
Bit 15	CNT	0 or 1

※2 words data format: upper data has high number address.

E.g.) 301004: present value (low word), 301005: present value (high word)

2.5 Preset value setting group

No (Address)	Func	Explanation	Setting range	Notice
400001 (0000)	03/06/16	PRESET2 setting value	Counter 6-digit type: 0 to 999999 4-digit type: 0 to 9999 Timer: within time setting range	Use counter and timer in common
400002 (0001)		PRESET setting value		
400003 (0002)	03/06/16	PRESET1 setting value		
400004 (0003)				
400005 (0004)	03/06/16	BATCH counter setting value	0 to 999999	
400006 (0005)				

2.6 Function setting mode

2.6.1 Counter group

No (Address)	Func	Explanation	Setting range	Notice
400051 (0032)	03/06/16	Counter/Timer [C-E]	0: COn 1: EI nE	Use counter and timer in common
400052 (0033)	03/06/16	Input mode [i n]	0: UP 1: UP-1 2: UP-2 3: dn 4: dn-1 5: dn-2 6: Ud-A 7: Ud-b 8: Ud-C	-
400053 (0034)	03/06/16	Indication mode [di Sn]	0: t o t A L 1: Ho L d	For the indicator
400054 (0035)	03/06/16	Output mode [o U t n]	0: F 1: n 2: C 3: r 4: E 5: P 6: q 7: R 8: S 9: t 10: d	-
400055 (0036)	03/06/16	Max. counting speed [CP5]	0: 1 1: 30 2: 1E 3: 5E 4: 10E	-
400056 (0037)	03/06/16	OUT2(OUT) output time [o U t 2 (o U t t)]	0.0 1 to 99.99	Unit: ×10ms
400057 (0038)	03/06/16	OUT1 output time [o U t 1]	0.0 1 to 99.99	
400058 (0039)	03/06/16	Decimal point [dP]	0: ----- 1: -----. 2: -----. 3: ---.--- 4: --.---- 5: -.-----	4-digit type 0: ---- 2: ---. 1: ---. 3: -.---
400059 (003A)	03/06/16	Min. reset time [r S t]	0: 1 1: 20	Unit: ms
400060 (003B)	03/06/16	Prescale decimal point position [5C.dP]	1: -----. 2: -----. 3: ---.--- 4: --.---- 5: -.-----	4-digit type 1: ---. 3: -.--- 2: ---.
400061 (003C)	03/06/16	Prescale value [5CL]	6-digit type : 000000 1 to 999999	Connected with prescale decimal point position
400062 (003D)			4-digit type: 0000 1 to 9999	
400063 (003E)	03/06/16	Start value [S t r t]	6-digit type : 000000 to 999999	Connected with decimal point position of display value
400064 (003F)			4-digit type: 0000 to 9999	
400065 (0040)	03/06/16	Memory protection [d A t A]	0: C L r 1: r E C	Use counter and timer in common
400066 (0041)		Lock key [L o c k]	0: L o F F 1: L o C . 1 2: L o C . 2 3: L o C . 3	

2.6.2 Timer group

No (Address)	Func	Explanation	Setting range	Notice
400101 (0064)	03/06/16	Count/Timer [C-t]	0: Count 1: Timer	Use counter and timer in common
400102 (0065)	03/06/16	Time range [Hour/Min/Sec]	4-digit type 0: 0.001s to 9999s 1: 0.01s to 9999s 2: 0.1s to 9999s 3: 1s to 9999s 4: 1s to 99m59s 5: 0.1m to 9999m 6: 1m to 9999m 7: 1m to 99h59m 8: 1h to 9999h 6-digit type 0: 0.001s to 999999s 1: 0.01s to 999999s 2: 0.1s to 999999s 3: 1s to 999999s 4: 0.01s to 99m59.99s 5: 0.1s to 999m59.99s 6: 1s to 9999m59s 7: 0.1m to 999999m 8: 1m to 999999m 9: 1s to 99h59m59s 10: 1m to 9999h59m 11: 0.1h to 999999h	-
400103 (0066)	03/06/16	Up/Down mode [U-d]	0: UP 1: dn	-
400104 (0067)	03/06/16	Output mode [OUTn]	0: on 1: on.1 2: on.2 3: FL 4: FL.1 5: FL.2 6: In 7: In.1 8: In.2 9: of 10: nF 11: nF.1 12: In.2G	-
400105 (0068)	03/06/16	OUT2(OUT) output [OUT2(OUTt)]	0.01 to 9999, 0 is HOLD.	Unit: ×10ms
400106 (0069)	03/06/16	OUT1 output time [OUT1]	0.01 to 9999, 0 is HOLD.	
400107 (006A)	03/06/16	Input signal time [In]	0: 1 1: 20	Unit: ms
400108 (006B)	03/06/16	Memory protection [dRR]	0: CLR 1: rEE	Use counter and timer in common
400109 (006C)	03/06/16	Lock key [LoC]	0: LoFF 1: LoC.1 2: LoC.2 3: LoC.3	
400110 (006D)	03/06/16	Indication mode [dSPn]	0: toLR 1: HoLD 2: onLd	For the indicator

2.6.3 Communication group

No (Address)	Func	Explanation	Setting range	Notice
400151 (0096)	03/06/16	Comm. Address [Addr]	1 to 127	-
400152 (0097)	03/06/16	Comm. Speed [bps]	0: 24 3: 192 1: 48 4: 384 2: 96	Unit: ×100bps
400153 (0098)	03/06/16	Comm. parity bit [Prty]	0: none 1: Even 2: odd	-
400154 (0099)	03/06/16	Comm. stop bit [StP]	0: 1 1: 2	-
400155 (009A)	03/06/16	Response waiting time [rStt]	05 to 99	Unit: ms
400156 (009B)	03/06/16	Comm. writing [Wrn]	0: EnA 1: dI SA	-



Note

- ※1: When using Func.06 and Func.16 to change the parameters of '2.6.1 Counter group' and '2.6.2 Timer group', the Counting value display part: [Wrn] and the Setting value display part: rStt will flash for 3 seconds and then the current value will be reset.
- ※2: When using Func.06 and Func.16 to change the parameters of '2.5 Preset value setting group' and '2.6.3 Communication group', the current value is maintained.

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