MITSUBISHI ELECTRIC

TECHNICAL BULLETIN

GOT-A-0233-A

List of Validated Devices for the GOT3000 Series

■Date of Issue
July 2025
■Relevant Models
GOT3000 Series

Thank you for your continued support of Mitsubishi Electric Graphic Operation Terminal (GOT).

This bulletin introduces the peripherals and connection devices validated to operate with the GOT3000 series.

For information on how to use each product, refer to the respective product manual.

Regarding the production status of each product, check with the manufacturer.

> Recommended products
>
>   Products that are compliant with Mitsubishi Electric standards.
>
>   Use recommended products according to their specifications.
>
> Compatible products
>
>   Products that can be connected to Mitsubishi Electric products.
>
>   (Note that compatibility is not verified by Mitsubishi Electric.)
>
>   Use compatible products according to their specifications.
>
>   Some compatible products may not be connected because their specifications have changed depending on the date of manufacture.
>
>   Verify compatible products, and determine whether or not to use them.
>
> Discontinued products
>
>   Recommended products or compatible products that have been mentioned in the bulletin before, but may be difficult to procure because they have been discontinued.
>
> Incompatible products
>
>   Products that are not connectable to Mitsubishi Electric products.
>
>   Use compatible products.

CONTENTS

MITSUBISHI ELECTRIC CORPORATION

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1 Memory card (SD card)

The following shows the SD card specifications supported by the GOT.

Item	Specifications
SD card	SD, SDHC (maximum transfer speed: UHS-I[*1][*2])

*1 An SD card with a capacity up to 32 GB can be used.
*2 Cards formatted with FAT or FAT32 can be used.
    ・FAT: Up to 2 GB
    ・FAT32: Up to 32 GB

If validated operation is required, use a Mitsubishi Electric product.

Manufacturer	Model
Mitsubishi Electric Corporation	NZ1MEM-□GBSD

2 USB memory

When connecting a USB memory to the USB interface on the GOT front face, do so after the GOT has started.

The following shows the USB memory specifications supported by the GOT.

Item	Specifications
USB memory	USB memory compliant with USB3.2 Gen 1[*1][*2][*3][*4]

*1 A USB memory with a capacity up to 2 TB can be used.
*2 Some USB memories with special functions are not supported.
    Examples of special functions:
    ・Composite devices (with hub function/card reader function)
    ・Devices with security functions such as authentication, encryption, and virus check
    ・Devices with additional functions provided by dedicated driver software
*3 Cards formatted with FAT or FAT32 can be used.
    ・FAT: Up to 2 GB
    ・FAT32: Up to 2 TB
*4 USB3.2 Gen 1 compliance includes forward compatibility with USB3.2 Gen 2 and other versions, as well as backward compatibility with USB2.0, USB1.1, and other versions.

3   Barcode reader

3.1   Compatible products

RS-422/485 connection

○: Supported, ×: Not supported, —: Not validated

Manufacturer	Model	Operation validation		Reference
		GOT3000	**GT SoftGOT3000**	
IDEC AUTO-ID SOLUTIONS Corporation	DS2100N-□□□□[*1]	○	×	☞ Page 5 System equipment 1

*1   This is a discontinued product.

USB connection

When connecting a USB device to the USB interface on the GOT front face, do so after the GOT has started.

You can use the USB barcode readers that satisfy the following conditions.

• A USB2.0-compliant USB keyboard interface is provided.

• An OADG-compliant Japanese 106 keyboard, English 101 keyboard, or equivalent is settable.

• "Enter" is settable as the terminator.

○: Supported, ×: Not supported, —: Not validated

Manufacturer	Model	Operation validation		Reference
		GOT3000	**GT SoftGOT3000**	
Aug, Inc.	AUG-500SDW-USB(HID)	○	○	☞ Page 6 System equipment 2
KEYENCE CORPORATION	HR-100	○	○	☞ Page 6 System equipment 2
DENSO WAVE INCORPORATED	AT20Q-SM	○	○	☞ Page 6 System equipment 2
Zebra Technologies, Inc.	DS6707-HD	○	○	☞ Page 6 System equipment 2
SICK Inc.	IDM240-100H	○	○	☞ Page 6 System equipment 2
NICHIEI INTEC CO., LTD.	FFTA21BU	○	○	☞ Page 6 System equipment 2
	FFTA10AUSB	○	○	

3.2 System equipment of barcode readers

The following shows the system equipment required to use each barcode reader.

System equipment 1
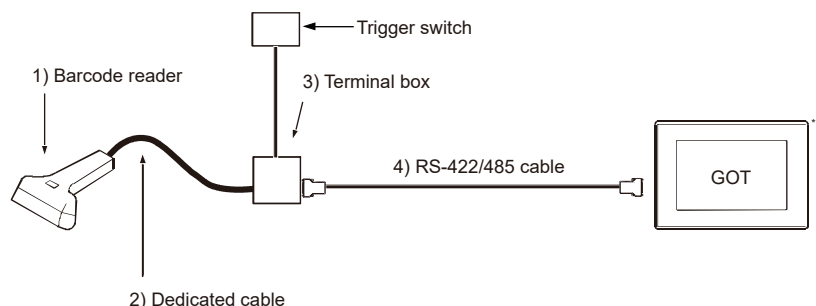
Manufacturer	1) Barcode reader	2) Dedicated cable	3) Terminal box	4) RS-422/485 cable
IDEC AUTO-ID SOLUTIONS Corporation	DS2100N-□□□□	Included with the barcode reader	CBX100	Created by the user ☞ Page 5 RS-422/485 cable connection diagram for a barcode reader manufactured by IDEC AUTO-ID SOLUTIONS Corporation

*1   To use a barcode reader, follow one of the procedures below to turn it on.
・Turn on the GOT, wait two seconds or more, and turn on the barcode reader.
・Turn on the GOT, wait for the startup logo to appear, and turn on the barcode reader.
If you use any procedure other than the above and the barcode reader becomes inoperable, restart the barcode reader.

RS-422/485 cable connection diagram for a barcode reader manufactured by IDEC AUTO-ID SOLUTIONS Corporation

■When using the RS-422/485 interface of the GOT or the extension interface (GT37-IF2000 + GT15-RS4-9S) for connection

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the barcode reader manufacturer.

Barcode reader (terminal box)		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	SDA
TX(+)	2		2	RDA
RX(+)	3		3	RSA
TX(-)	4		4	CSA
RX(-)	5		5	SG
—	—		6	SDB
SGND	7		7	RDB
—	—		8	RSB
—	—		9	CSB

■When using the extension interface (GT37-IF2000 + GT15-RS4-TE) for connection

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the barcode reader manufacturer.

Barcode reader (terminal box)		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	SDA1
TX(+)	2		2	SDB1
RX(+)	3		3	RDA1
TX(-)	4		4	RDB1
RX(-)	5		5	SDA2
—	—		6	SDB2
SGND	7		7	RDA2
—	—		8	RDB2
—	—		9	SG
—	—		10	FG

System equipment 2

1) Barcode reader

2) USB cable

GOT

Manufacturer	1) Barcode reader	2) USB cable
Aug, Inc.	AUG-500SDW-USB(HID)	Included with the barcode reader
KEYENCE CORPORATION	HR-100	• HR-1C3UN (3 m) • HR-1C3UC (3 m, curl type) • HR-1C3UC (5 m, curl type)
DENSO WAVE INCORPORATED	AT20Q-SM	Included with the barcode reader
Zebra Technologies, Inc.	DS6707-HD	Included with the barcode reader
SICK Inc.	IDM240-100H	Included with the barcode reader
NICHIEI INTEC CO., LTD.	FFTA21BU	Included with the barcode reader

3.3   Compatible barcode types

The following shows the types of barcode readers validated by Mitsubishi Electric.

○: Readable by the GOT, △: Some restrictions, ー: Not readable by the GOT

Manufacturer	Barcode reader	Barcode type								
		WPC (JAN, EAN, UPC)	CODE-39	CODE-93	CODE-128	NW-7 (CODABAR)	2of5 (industrial)	ITF (2of5 Interleaved)	MSI/ Plessy	IATA 2of5
IDEC AUTO-ID SOLUTIONS Corporation	DS2100N-□□□□	○	○	○	○	○	ー	○	ー	ー
KEYENCE CORPORATION	HR-100	○	○	○	○	○	○	○	○	○
DENSO WAVE INCORPORATED	AT20Q-SM	○	○	○	○	○	○	○	ー	ー
Aug, Inc.	AUG-500SDW-USB(HID)	○	○	○	○	○	○	○	○	ー
Zebra Technologies, Inc.	DS6707-HD	○	○	○	○	○	ー	○	ー	ー
SICK Inc.	IDM240-100H	○	○	○	○	ー	○	ー	ー	ー
NICHIEI INTEC CO., LTD.	FFTA21BU	○	○	○	○	○	○	○	○	ー
	FFTA10AUSB	○	○	○	○	○	○	○	ー	ー

3.4   How to read data with a barcode reader

For information on the data transfer formats (such as header/terminator settings) that can be used in the GOT, and the settings for reading data with a barcode reader, refer to the following.

 • Data transfer formats (such as header/terminator settings) that can be used in the GOT
 • Settings to connect a barcode reader to the GOT. ([Peripheral Setting] in GT Designer3)
 • Setting to write the data read by the barcode reader to the PLC CPU ([Detail Setting] in the [Bar Code] dialog in GT Designer3)

For details, refer to the following manual.

📖GT Designer3 (GOT3000) Screen Design Manual

 • Setting procedure for connecting a barcode reader to the GOT and reading a barcode

For details, refer to the following manual.

📖GOT3000 Series User's Manual (Connection)

4   2D code reader

4.1   Compatible products

RS-232 connection

○: Supported, ×: Not supported, —: Not validated

Manufacturer	Model	Operation validation		Reference
		GOT3000	**GT SoftGOT3000**	
KEYENCE CORPORATION	HR-100	○	○	☞ Page 9 System equipment 1
DENSO WAVE INCORPORATED	AT20Q-SM	○	○	☞ Page 9 System equipment 2
Corporation MARS TOHKEN SOLUTION CO.LTD.	THIR-3000N[1]	○	○	☞ Page 9 System equipment 1
	THIR-6780R[1]	○	○	
Cognex Corporation	DataMan 8100	○	○	☞ Page 9 System equipment 2
Zebra Technologies, Inc.	DS6608-RS-DOS/V[1]	○	○	☞ Page 9 System equipment 1

[1]   This is a discontinued product.

USB connection

When connecting a USB device to the USB interface on the GOT front face, do so after the GOT has started.

○: Supported, ×: Not supported, —: Not validated

Manufacturer	Model	Operation validation		Reference
		GOT3000	**GT SoftGOT3000**	
DENSO WAVE INCORPORATED	AT20Q-SM	○	○	☞ Page 10 System equipment 3
Zebra Technologies, Inc.	DS6707-HD	○	○	
SICK Inc.	IDM240-100H	○	○	

4.2   System equipment of 2D code readers

The following shows the system equipment required to use each 2D code reader.

System equipment 1
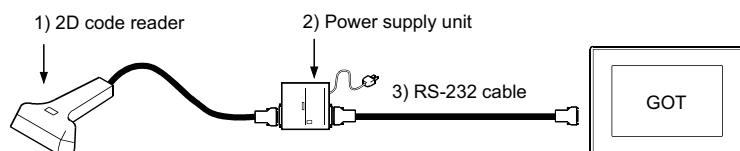
Manufacturer	1) 2D code reader	2) Power supply unit	3) RS-232 cable[*3]
KEYENCE CORPORATION	HR-100	OP-87530	HR-1C3RC
MARS TOHKEN SOLUTION CO.LTD.	THIR-3000N	S-8440	Included with the 2D code reader[*1*2]
	THIR-6780R	Included with the 2D code reader	Included with the 2D code reader
Zebra Technologies, Inc.	DS6608-RS-DOS/V	Included with the 2D code reader	Included with the 2D code reader[*1]

*1   To connect the barcode reader to GT SoftGOT3000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
       For the USB/RS-232 conversion cable, refer to Technical Bulletin FA-A-0036.
       - DIFC-U2 (Diatrend Corporation)
       - DAC01R2VD (Diatrend Corporation)
       <Connection example>
       2D code reader (RS-232) - [3) RS-232 cable] - [DAC01R2VD] - [DIFC-U2] - personal computer (USB)
*2   When using a USB/RS232 conversion cable (DIFC-U2 or DAC01R2VD), configure the 2D code reader setting to not perform RS/CS control.
*3   Use the built-in GOT interface with an RS-422/232 connector conversion cable (GT35-C02HR2-9P), or the extension interface (GT37-IF2000 + GT15-RS2-9P).

System equipment 2
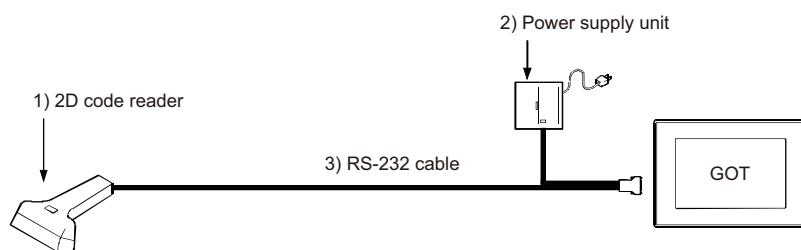
Manufacturer	1) 2D code reader	2) Power supply unit	3) RS-232 cable[*2*3]
DENSO WAVE INCORPORATED	AT20Q-SM	Included with the 2D code reader	Included with the 2D code reader
Cognex Corporation	DataMan 8100[*1]	DM100-PWR-00	DM8000-RS232-02

*1   The communication module DMCM-SERIALM-00 is required.
*2   Use the built-in GOT interface with an RS-422/232 connector conversion cable (GT35-C02HR2-9P), or the extension interface (GT37-IF2000 + GT15-RS2-9P).
*3   To connect the 2D code reader to GT SoftGOT3000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
       For the USB/RS-232 conversion cable, refer to Technical Bulletin FA-A-0036.
       - DIFC-U2 (Diatrend Corporation)
   - DAC01R2VD (Diatrend Corporation)
       <Connection example>
       2D code reader (RS-232) - [3) RS-232 cable] - [DAC01R2VD] - [DIFC-U2] - personal computer (USB)

System equipment 3

Manufacturer	1) 2D code reader	2) USB cable
DENSO WAVE INCORPORATED	AT20Q-SM	Included with the 2D code reader
Zebra Technologies, Inc.	DS6707-HD	Included with the 2D code reader
SICK Inc.	IDM240-100H	Included with the 2D code reader

4.3   Compatible 2D code reader types

○: Readable by the GOT, △: Some restrictions, ─: Not readable by the GOT

Manufacturer	Barcode reader	Barcode type								
		QR code	Micro QR code	DataMatrix (ECC200)	PDF 417	Micro PDF	Maxi code	EAN/UCC Composite	Others (Aztec)	Barcode (CODE-39)
KEYENCE CORPORATION	HR-100	○	○	○	○	○	○	─	○	○
DENSO WAVE INCORPORATED	AT20Q-SM	○	○	○	○	○	○	○	○	○
MARS TOHKEN SOLUTION CO.LTD.	THIR-3000N	○	─	○	○	─	○	○	○	○
	THIR-6780R	○	○	○	○	○	○	─	○	○
Cognex Corporation	DataMan 8100	○	─	○	─	─	─	─	─	○
Zebra Technologies, Inc.	DS6608-RS-DOS/V	○	─	○	○	○	○	─	○	○
	DS6707-HD	○	○	○	○	○	○	─	○	─
SICK Inc.	IDM240-100H	○	○	○	○	○	─	─	─	─

4.4   How to read data with a 2D code reader

For information on the data transfer formats (such as header/terminator settings) that can be used in the GOT, and the settings for reading data with a 2D code reader, refer to the following.

• Data transfer formats (such as header/terminator settings) that can be used in the GOT
• Settings to connect a 2D code reader to the GOT ([Peripheral Setting] in GT Designer3)
• Setting to write the data read by the 2D code reader to the PLC CPU ([Detail Setting] in the [Bar Code] dialog in GT Designer3)

For details, refer to the following manual.

📖GT Designer3 (GOT3000) Screen Design Manual

• Setting procedure for connecting a 2D code reader to the GOT and reading a 2D code

For details, refer to the following manual.

📖GOT3000 Series User's Manual (Connection)

5   Hubs for Ethernet connection

Use a hub that meets the following specifications.

Item	Specifications
Hubs for Ethernet connection	Use one that complies with IEEE 802.3ab or IEEE 802.3u for 10BASE-T, 100BASE-TX, or 1000BASE-T.

6   Web camera (USB camera)

6.1   Compatible products

To use a web camera, connect it to the USB interface on the GOT rear face, and power on the GOT. Do not connect or disconnect the cable after powering on the GOT.

The following shows the types of web cameras validated by Mitsubishi Electric.

Manufacturer	Model
Logicool	C920 (V-U0028)
SANWA SUPPLY INC.	CMS-V37BK[*1], CMS-V41BKN, CMS-V41CBK, CMS-V43BK-3, CMS-V59BK
ELECOM CO.,LTD.	UCAM-C820ABBK
BUFFALO INC.	BSW500MBK
	BSW200MBK

*1   This is a discontinued product.

7   Video capture device (HDMI input, RGB video input)

7.1   Compatible products

To use a video capture device, connect it to the USB interface on the GOT rear face, and power on the GOT. Do not connect or disconnect the cable after powering on the GOT.

The following shows the types of video capture devices validated by Mitsubishi Electric.

Manufacturer	Model
I-O DATA DEVICE, INC.	GV-HUVC/S
GRACETOP	AMR-VGAA1-G1117

8   Display

Use a display meets the following specifications.

Item	Specifications
Display	HDMI-certified monitor

9   Speaker

To use a speaker, connect it to the USB interface on the GOT rear face, and power on the GOT. Do not connect or disconnect the cable after powering on the GOT.

Use a speaker that meets the following specifications.

Item	Specifications
Sound output terminal	USB
Output specifications	File format: WAV format Sampling frequency: 48.000 kHz Bit depth: 16-bit Sound source: Mono

• For the file types that can be specified, refer to the following.

📖GT Designer3 (GOT3000) Screen Design Manual

10 RFID controller

10.1 Compatible products

RS-232 connection

○: Supported, ×: Not supported, —: Not validated

Manufacturer	Model	Operation validation		Reference
		GOT3000	**GT SoftGOT3000**	
OMRON Corporation	V600/V680	○	○	☞ Page 13 When using the RS-232 connection
MARS TOHKEN SOLUTION CO.LTD.	ICU-60S	○	○	
Pongee Industries Co., Ltd.	PUA-310	○	○	
	PUA-310V1-0/M0R2H05	○	○	
	PUA-310V1-0/M0R2H05-CH	○	○	

RS-422/485 connection

○: Supported, ×: Not supported, —: Not validated

Manufacturer	Model	Operation validation		Reference
		GOT3000	**GT SoftGOT3000**	
OMRON Corporation	V600/V680	○	×	☞ Page 14 When using the RS-232 connection

10.2 System equipment of RFID controllers

When using the RS-232 connection

The following shows the system equipment required to use each RFID controller.
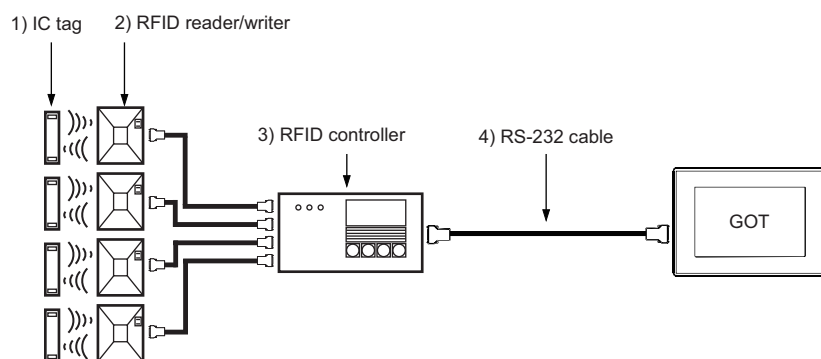
Manufacturer	1) IC tag	2) RFID reader/writer	3) RFID controller	4) RS-232 cable
OMRON Corporation[1]	V600-D□	V600-H□	V600-CA5D□	Created by the user ☞ Page 14 RS-232 cable connection diagram for a V600/V680 RFID controller manufactured by OMRON Corporation[2]
	V680-D8KR01	V680-H	V680-CA1A	Created by the user ☞ Page 14 RS-232 cable connection diagram for a V600/V680 RFID controller manufactured by OMRON Corporation[2]
MARS TOHKEN SOLUTION CO.LTD.	Mifare (ISO 14443 Type A) card	ICU-60S (built-in a controller)		Created by the user ☞ Page 15 RS-232 cable connection diagram for an ICU-60S RFID controller manufactured by MARS TOHKEN SOLUTION CO. LTD.[2]
Pongee Industries Co., Ltd.	PUA-310-compatible tag	PUA-310 (built-in a controller)		Created by the user ☞ Page 16 RS-232 cable connection diagram for an RFID controller manufactured by Pongee Industries Co., Ltd.[2]
	Mifare (ISO 14443 Type A) card	PUA-310V1-0/M0R2H05 (built-in a controller)		
		PUA-310V1-0/M0R2H05-CH (built-in a controller)		

*1 For the cables between 2) and 3), refer to the manual provided by OMRON Corporation.

*2 To connect the RFID controller to GT SoftGOT3000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
   For the USB/RS-232 conversion cable, refer to Technical Bulletin FA-A-0036.
   - DIFC-U2 (Diatrend Corporation)
   - DAC01R2VD (Diatrend Corporation)
   <Connection example>
   [3] RFID controller (RS-232)] - [4) RS-232 cable] - [DAC01R2VD] - [DIFC-U2] - personal computer (USB)

RS-232 cable connection diagram for a V600/V680 RFID controller manufactured by OMRON Corporation

■**When using the RS-232 interface of the GOT for connection**

Precautions

The pin numbers differ from those of the RS-232 port built into the GOT2000 series.

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	1		1	RI
SD	2		4	RD(RXD)
RD	3		3	SD(TXD)
RS	4		6	DTR(ER)
CS	5		5	SG
—	6		2	DSR(DR)
—	7		8	RS(RTS)
—	8		9	CS(CTS)
SG	9		7	DCD

■**When using the extension interface (GT37-IF2000 + GT15-RS2-9P) for connection**

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	1		9	RI
SD	2		2	RD(RXD)
RD	3		3	SD(TXD)
RS	4		4	DTR(ER)
CS	5		5	SG
—	6		6	DSR(DR)
—	7		7	RS(RTS)
—	8		8	CS(CTS)
SG	9		1	DCD

RS-232 cable connection diagram for an ICU-60S RFID controller manufactured by MARS TOHKEN SOLUTION CO. LTD.

■**When using the RS-232 interface of the GOT for connection**

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller (ICU-60S)		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
+24V	1		1	RI
GND	2		4	RD(RXD)
TXD	3		3	SD(TXD)
RXD	4		6	DTR(ER)
CTS	5		5	SG
RTS	6		2	DSR(DR)
/RST	7		8	RS(RTS)
GND	8		9	CS(CTS)
—	9		7	DCD

■**When using the extension interface of the GOT (GT37-IF2000 + GT15-RS2-9S)**

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller (ICU-60S)		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
+24V	1		9	RI
GND	2		2	RD(RXD)
TXD	3		3	SD(TXD)
RXD	4		4	DTR(ER)
CTS	5		5	SG
RTS	6		6	DSR(DR)
/RST	7		7	RS(RTS)
GND	8		8	CS(CTS)
—	9		1	DCD

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RS-232 cable connection diagram for an RFID controller manufactured by Pongee Industries Co., Ltd.

■When using the RS-232 interface of the GOT for connection

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Color		Pin No.	Signal name
+12VDC	Red		1	RI
Ground	Black		4	RD(RXD)
TX+	White		3	SD(TXD)
Shield/Ground	Yellow		6	DTR(ER)
LED	Brown		5	SG
BUZZER	Orange		2	DSR(DR)
—	—		8	RS(RTS)
—	—		9	CS(CTS)
—	—		7	DCD

■When using the extension interface of the GOT (GT37-IF2000 + GT15-RS2-9S)

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Color		Pin No.	Signal name
+12VDC	Red		9	RI
Ground	Black		2	RD(RXD)
TX+	White		3	SD(TXD)
Shield/Ground	Yellow		4	DTR(ER)
LED	Brown		5	SG
BUZZER	Orange		6	DSR(DR)
—	—		7	RS(RTS)
—	—		8	CS(CTS)
—	—		1	DCD

When using the RS-422/485 connection

The following shows the system equipment required to use each RFID controller.
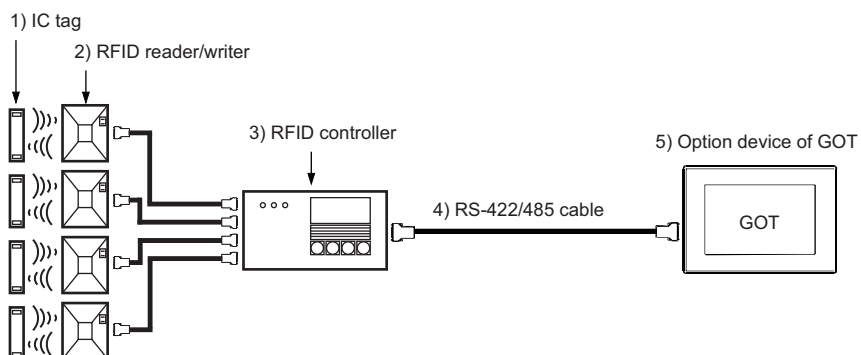
Manufacturer	1) IC tag	2) RFID reader/writer	3) RFID controller	4) RS-422/485 cable	5) Option device of GOT
OMRON Corporation*1	V600-D□	V600-H□	V600-CA5D□	Created by the user	- (Built into GOT)
					GT37-IF2000 +GT15-RS4-9S
				Created by the user	GT37-IF2000 +GT15-RS4-TE
	V680-D□	V680-H□	V680-CA5D□	Created by the user	- (Built into GOT)
					GT37-IF2000 +GT15-RS4-9S
				Created by the user	GT37-IF2000 +GT15-RS4-TE

*1   For the cables between 2) and 3), refer to the manual provided by OMRON Corporation.

RS-422/485 cable (D-sub, 9 pins) connection diagram for an RFID controller (V600/V680) manufactured by OMRON Corporation

■When using the RS-422 connection

The following shows connection cables that must be created by the user.
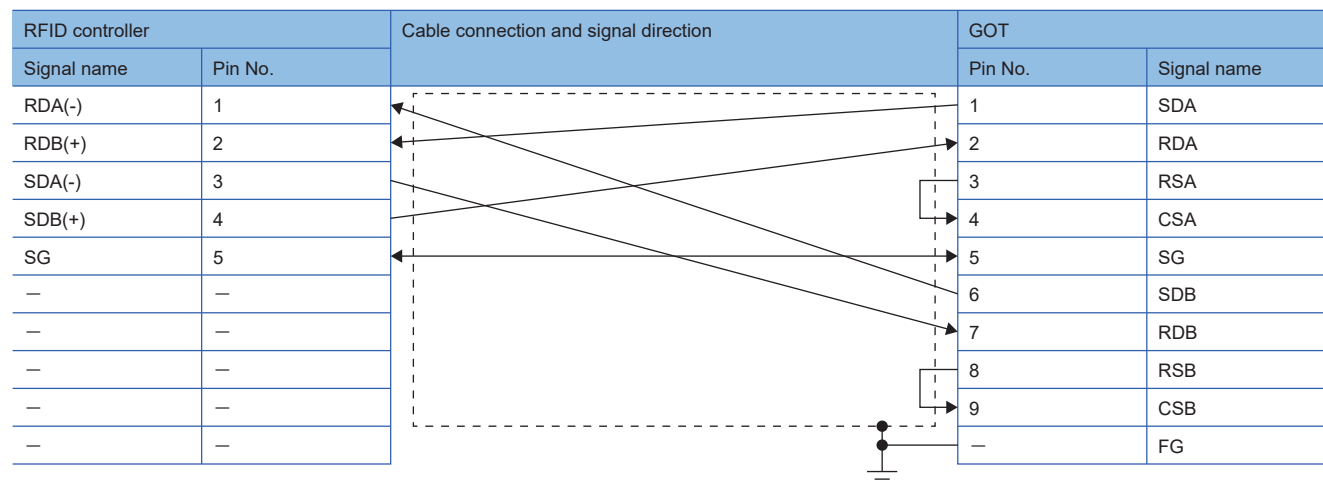
For the maximum cable length, check with the RFID controller manufacturer.

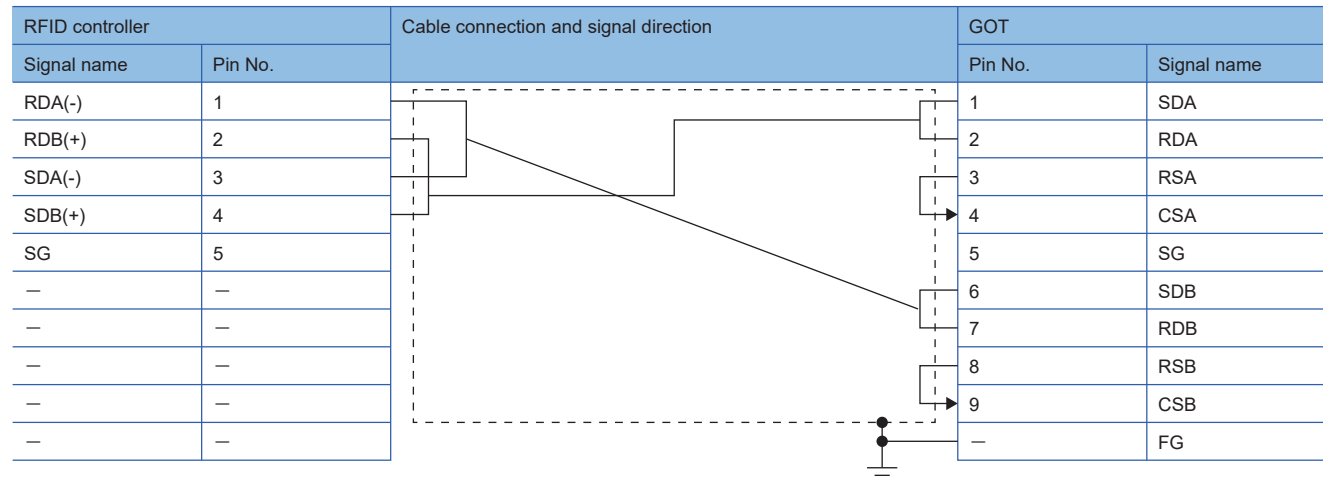| RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
RDA(-)	1		1	SDA
RDB(+)	2		2	RDA
SDA(-)	3		3	RSA
SDB(+)	4		4	CSA
SG	5		5	SG
—	—		6	SDB
—	—		7	RDB
—	—		8	RSB
—	—		9	CSB
—	—		—	FG

■When using the RS-485 connection

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
RDA(-)	1		1	SDA
RDB(+)	2		2	RDA
SDA(-)	3		3	RSA
SDB(+)	4		4	CSA
SG	5		5	SG
—	—		6	SDB
—	—		7	RDB
—	—		8	RSB
—	—		9	CSB
—	—		—	FG

RS-422/485 cable (terminal block) connection diagram for an RFID controller (V600/V680) manufactured by OMRON Corporation

The following shows connection cables that must be created by the user.

For the maximum cable length, check with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
RDA(-)	1		1	SDA1
RDB(+)	2		2	SDB1
SDA(-)	3		3	RDA1
SDB(+)	4		4	RDB1
SG	5		5	SDA2
—	—		6	SDB2
—	—		7	RDA2
—	—		8	RDB2
—	—		9	SG
—	—		10	FG

10.3   How to read data with an RFID controller

For information on the data transfer formats (such as header/terminator settings) that can be used in the GOT, and the settings for reading data with an RFID controller, refer to the following.

- Data transfer formats (such as header/terminator settings) that can be used in the GOT
- Settings to connect an RFID controller to the GOT ([Peripheral Setting] in GT Designer3)
- Setting to write the data read by the RFID controller to the PLC CPU ([Detail Setting] in the [Bar Code] dialog in GT Designer3)

For details, refer to the following manual.

📖GT Designer3 (GOT3000) Screen Design Manual

- Setting procedure for connecting an RFID controller to the GOT and reading an RFID tag

For details, refer to the following manual.

📖GOT3000 Series User's Manual (Connection)

- Send and receive data using an RFID controller manufactured by MARS TOHKEN SOLUTION CO.LTD.

When using the ICU-60S

Send data: Set the data excluding STX and ETX to LF.

Receive data: Data excluding STX and ETX to LF is stored.

10.4   RFID controllers available for the external authentication

The following RFID controllers can be used for external authentication.

Manufacturer	Model
MARS TOHKEN SOLUTION CO.LTD.	ICU-60S
OMRON Corporation	V600
	V680
Pongee Industries Co., Ltd.	PUA-310
	PUA-310V1-0/M0R2H05
	PUA-310V1-0/M0R2H05-CH

11 USB mouse function

When connecting a USB mouse to the USB interface on the GOT front face, do so after the GOT has started.

Item	Specifications
USB mouse	USB2.0-compliant two-button USB mouse with a scroll wheel[*1*2]

*1 Some models, such as mice with special functions, may not be supported.
     Examples of special functions:
     Composite device-type mouse (with USB hub function, card reader, keypad, etc.)
     A mouse with additional functions enabled by dedicated driver software
*2 USB2.0 compliance includes forward compatibility with USB3.0 and other versions, as well as backward compatibility with USB1.1 and other versions.

12 USB keyboard function

12.1 USB keyboard

When connecting a USB keyboard to the USB interface on the GOT front face, do so after the GOT has started.

Item	Specifications
USB keyboard	Japanese 109 keyboard, English 101 keyboard, and forward-compatible keyboards (Japanese 109 keyboard and others), which are compliant with USB2.0 and OADG[*1*2*3]

*1 Only keys compatible with the Japanese 109 keyboard and English 101 keyboard are available.
     (Any other keys are invalid.)
*2 Some special keyboards, such as those with a hub function, may not be supported depending on the model.
*3 USB2.0 compliance includes forward compatibility with USB3.0 and other versions, as well as backward compatibility with USB1.1 and other versions.

12.2 USB barcode reader

When connecting a USB barcode reader to the USB interface on the GOT front face, do so after the GOT has started.

When data is input from a USB barcode reader, the GOT supports only the ASCII code characters that can be output using a USB keyboard.

The GOT ignores data that cannot be output in the ASCII code.

The USB-connected barcode reader can send key codes to input objects such as text input and numerical input by using the USB keyboard function. (Input values are treated as ASCII code.)

GT SoftGOT3000 only supports reading from a USB barcode reader. For the compatible products, refer to the following.

12.3 USB RFID controller

When connecting a USB RFID controller to the USB interface on the GOT front face, do so after the GOT has started.

The USB-connected RFID controller can send key codes to input objects such as text input and numerical input by using the USB keyboard function. (Input values are treated as ASCII code.)

Set the peripheral device to a USB barcode reader to write values to the device.

When connected via USB, the RFID controller cannot be used for the RFID function. To use the RFID function, use a device that can connect to the RS-232 or RS-422/485 interface.

○: Supported, ×: Not supported, ―: Not validated

Item	Manufacturer	Model	Operation validation	
			GOT3000	GT SoftGOT3000
USB RFID controller	Topre Corporation	TRF-100U+	○	○

12.4 Other devices

When connecting another device to the USB interface on the GOT front face, do so after the GOT has started.

The following USB-connected models can send key codes to input objects such as text input and numerical input by using the USB keyboard function.

Set the peripheral device to a USB barcode reader to write values to the device.

○: Supported, ×: Not supported, ―: Not validated

Item	Manufacturer	Model	Option	Connection cable	Operation validation	
					GOT3000	GT SoftGOT3000
Digital caliper	Mitutoyo Corporation	CD-15AX	IT-012U	959149 (1 m)	○	×

13 USB hub

When connecting a USB hub to the USB interface on the GOT front face, do so after the GOT has started.

Item	Specifications
USB hub	USB hub compliant with USB3.2 Gen 1[1][2]

*1   Some models, such as hubs with special functions, may not be supported.
Examples of special functions:
hubs with five or more ports, hubs with multiple internal hubs, and composite devices with functions other than the hub function.
*2   USB3.2 Gen 1 compliance includes forward compatibility with USB3.2 Gen 2 and other versions, as well as backward compatibility with USB2.0, USB1.1, and other versions.

14 USB cable

14.1 Compatible products

When connecting a personal computer and the GOT, use the GOT's USB Type-C port.

Item	Model	Manufacturer	Cable length	General specifications
Data transfer cable	U2C-AC30NBK	ELECOM CO.,LTD.	3 m	Personal computer (screen design software) ↔ GOT [USB Type-A ↔ USB Type-C]
	U2C-CC30NBK2	ELECOM CO.,LTD.	3 m	Personal computer (screen design software) ↔ GOT [USB Type-C ↔ USB Type-C]

Revisions

Version	Issue date	Revision
A	July 2025	First edition

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