

注意 | 製品の作動前に必ずマニュアルを熟知してください。  
実際製品の色相とカタログ上の製品の色相は多少違う事もあります。  
本カタログの内容は事前予告無しに変更される場合があります。

**M2** Corporation  
Man · Machine · Interface

**SMART DEVICE**



**SMART DEVICE**

Product Catalog

**M2I Corporation**

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# SMART DEVICE

## 1. 産業用リモートI/Oモジュール 04P

- 1-1. カプラーモジュール(MIO-CMROA)
- 1-2. I/Oモジュール(MIO-DI, DO / MIO-AI, AO)
- 1-3. 拡張モジュール(MIO-PWR / MIO-COM)

## 2. 長距離LoRa通信モジュール 12P

- 1-1. Gateway(MIO-LPG00)
- 1-2. EndNode(MIO-LPE00)

## 3. 産業用バーコードリーダー 18P

- 3-1. MSR-B2MWA
- 3-2. MSR-B2MWA-Ex



## REMOTE I/O

(Coupler Module + I/O, Expansion Module)

## LoRa

(Gateway / EndNode)



## BARCODE SCANNER

(KCs(Ex ib IIC T4 Gb)、Zone1使用可能)

# REMOTE I/O

MIO-CMR0A / MIO-DI, DO / MIO-AI, AO / MIO-PWR / MIO-COM

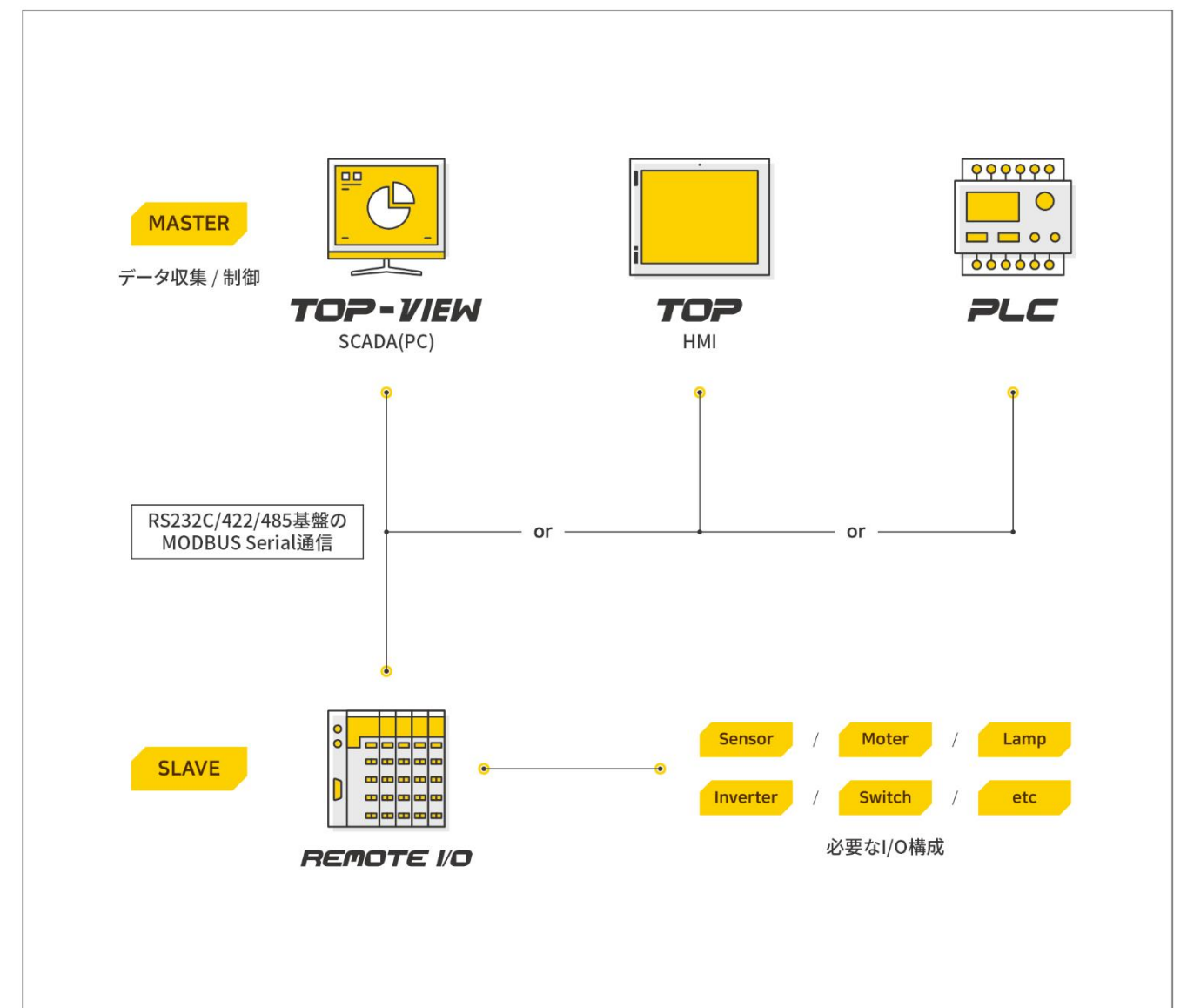


Coupler Module | I/O, Expansion Module

## Remote I/O 特長点

- Compact**  
超小型サイズで最小空間に最大接点管理
- Module**  
モジュールを欲しい分用途に合わせて脱付し構成 (最大32スロット)
- Hot Swap**  
電源OFFなしで便利にI/Oモジュール交替、故障時部分交替で効率的メンテナンス
- Easy**  
誰でもしやすく設定できるソフトウェアMIO Master

## Remote I/O 接続図



### MIO-CMROA SPECIFICATIONS

### COUPLER MODULE

Functional		MIO-CMROA	
Type	Protocol	MODBUS RTU/ASCII	
Power	Input Voltage	24Vdc(19.2 ~ 28.8Vdc)	
	Power Dissipation	50mA Typical@24Vdc	
	Voltage Sag	24Vdc, Within 10ms	
	Insulation Resistance	500Vdc, 10MΩ	
	Current for I/O Module	1.4A@5Vdc	
	Isolation	System Power to Internal Logic: Isolation System Power I/O Driver: Isolation	
	Field Power	Supply Voltage: 24Vdc Typ. Supply Voltage Range: 11 ~ 28.8Vdc	
	Max. Current Field Power Contact	Max. 7A@24Vdc	
	Interface Connector	Connector: DSUB 9Pin x 1	
Interface	Physical Interface	RS-232C, 485/422 Asynchronous Data Bit: 7/8 Bits, Stop Bit: 1/2 Bits, Parity Bit: None/Odd/Even Baud Rate: 2400 ~ 187.5kbps	
	Max. Length Bus Line	500m@RS-485/422, 10m@RS-232C	
	Max. Expansion Module	32 Slots	
	Max. Nodes	255 Nodes@RS-485/422	
	Node Setting	1 ~ 255	
	Baud Rate	Max. 187.5kbps	
	USB	Connector: USB Mini - B x 1	
	Memory	Max. Input Size	Input + Output Max. 256 Byte
		Max. Output Size	Input + Output Max. 256 Byte
Other	Indicator	7 LED MODBUS Status, I/O Module Status, Coupler Status, System Power Status, RX/TX Status, Field Power Status	
	Wiring	AWG 26 to 20	
Environment	Operation Temperature(°C)	-10 ~ +50	
	Storage Temperature(°C)	-20 ~ +60	
	Operation Humidity(%RH)	0 ~ 90(No Dew)	
	Atmosphere	No Corrosive Gas	
	Vibration Endurance	Amplitude: 10≤F < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)	
	Noise Immunity	1000Vp-p(Pulse Width 1μs)	
	Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV	
	Shock Endurance	10G X, Y, Z each Direction(for 3 Times)	
	Ground Connection	Class 3(100Ω Under)	
	Protection Classification	IP20	
	Certification	CE, KC, UL	
	Structure	External Dimension(mm)	52.2 x 101 x 75
		Weight(kg)	0.16
		Cooling System	Natural Air Circulation
Case Material		PC(Resistance to Flame)	

### MIO-DI, DO SPECIFICATIONS

### I/O MODULE

Functional		MIO-DIN08-01	MIO-DIP08-01	MIO-DON08-01	MIO-DOP08-01	MIO-DOR04-01
Type	Input/Output Type	8 Channels Sink Type, Input	8 Channels Source Type, Input	8 Channels Sink Type, Output	8 Channels Source Type, Output	4 Channels Relay Type, Output
Power	Input/Output Voltage	24Vdc Typ. On-State Min. 10.2Vdc ~ Max. 28.8Vdc, Off-State Max. 5Vdc		24Vdc Typ. Min. 11.0Vdc ~ Max. 28.8Vdc, On-State Voltage Drop: Max. 0.3Vdc@25°C Off-State Leakage Current: Max. 50uA		A Contact, 24Vdc
	Power Dissipation	Max. 70mA@5.0Vdc		Max. 90mA@5.0Vdc		Max. 200mA@5.0Vdc
	Input/Output Current in On State	Max. 6mA/ Channel@28.8Vdc		Max. 0.5A/ Channel@28.8Vdc		2A/Channel@24Vdc
	Max. On-State Voltage Drop	-		Max. 0.3Vdc@25°C		0.5V@2.0A, Resistive Load, 24Vdc
	Off-State Leakage Current	-		Max. 50uA		Max. 1.5mA
	Typ. Input Impedance	Typ. 4.7KΩ		-		
Interface	Input/Output Signal Delay	Off to On: Max. 0.1ms On to Off: Max. 0.5ms		Off to On: Max. 0.3ms On to Off: Max. 0.5ms		Off to On: Max. 3ms On to Off: Max. 3ms
	Input Filter(Digital)	0.5ms		-		
	Isolation	Photocoupler				Relay Coil/ Contact Isolation
Common Type	2COM(Single Common), 24Vdc	2COM(Single Common), 0Vdc	2COM(Single Common), 24Vdc	2COM(Single Common), 0Vdc	4COM(1COM/1Channel)	
Field Power	Supply Voltage: 24Vdc Typ. Supply Voltage Range: 11 ~ 28.8Vdc					
Wiring	AWG 26 to 20					
Other	Pin No.	Removable Terminal Block 10P				
	Indicator	9 LED 8 Channel States, 1 Operating State			5 LED 4 Channel States, 1 Operating State	
Environment	Operation Temperature(°C)	-10 ~ +50				
	Storage Temperature(°C)	-20 ~ +60				
	Operation Humidity(%RH)	0 ~ 90(No dew)				
	Atmosphere	No Corrosive Gas				
	Vibration Endurance	Amplitude: 10≤F < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)				
	Noise Immunity	1000Vp-p(Pulse Width 1μs)				
	Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV				
	Shock Endurance	10G X, Y, Z each Direction(for 3 Times)				
	Ground Connection	Class 3(100Ω Under)				
	Protection Classification	IP20				
	Certification	CE, KC, UL				
	Structure	External Dimension(mm)	12 x 101 x 75			
		Weight(kg)	0.06			
		Cooling System	Natural Air Circulation			
Case Material		PC(Resistance to Flame)				



### MIO-DI, DO SPECIFICATIONS

### I/O MODULE

Functional		MIO-DIN16-01	MIO-DIP16-01	MIO-DON16-01	MIO-DOP16-01
Type	Input/Output Type	16 Channels Sink Type, Input	16 Channels Source Type, Input	16 Channels Sink Type, Output	16 Channels Source Type, Output
Power	Input/Output Voltage	24Vdc Typ. On-State Min. 10.2Vdc ~ Max. 28.8Vdc, Off-State Max. 5Vdc		24Vdc Typ. Min. 11.0Vdc ~ Max. 28.8Vdc, On-State Voltage Drop: Max. 0.3Vdc@25°C Off-State Leakage Current: Max. 50uA	
	Power Dissipation	Max. 70mA@5.0Vdc		Max. 120mA@5.0Vdc	
	Input/Output Current in On State	Max. 6mA/ Channel@28.8Vdc		Max. 0.5A/ Channel@28.8Vdc	
	Max. On-State Voltage Drop	-		Max. 0.3Vdc@25°C	
Interface	Off-State Leakage Current	-		Max. 50uA	
	Typ. Input Impedance	Typ. 4.7KΩ		-	
	Input/Output Signal Delay	Off to On: Max. 0.1ms On to Off: Max. 0.5ms		Off to On: Max. 0.3ms On to Off: Max. 0.5ms	
	Input Filter(Digital)	0.5ms		-	
	Isolation	Photocoupler			
	Common Type	Not Support			
	Field Power	Supply Voltage: 24Vdc Typ. Supply Voltage Range: 11 ~ 28.8Vdc			
	Wiring	AWG 26 to 20			
	Pin No.	Removable Terminal Block 16P			
	Indicator	17 LED 16 Channel States, 1 Operating State			
Environment	Operation Temperature(°C)	-10 ~ +50			
	Storage Temperature(°C)	-20 ~ +60			
	Operation Humidity(%RH)	0 ~ 90(No dew)			
	Atmosphere	No Corrosive Gas			
	Vibration Endurance	Amplitude: 10sF < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)			
	Noise Immunity	1000Vp-p(Pulse Width 1μs)			
	Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV			
	Shock Endurance	10G X, Y, Z each Direction(for 3 Times)			
	Ground Connection	Class 3(100Ω Under)			
	Protection Classification	IP20			
Structure	Certification	CE, KC, UL			
	External Dimension(mm)	12 x 101 x 75			
	Weight(kg)	0.06			
	Cooling System	Natural Air Circulation			
	Case Material	PC(Resistance to Flame)			

### MIO-AI, AO SPECIFICATIONS

### I/O MODULE

Functional		MIO-AIR02-01	MIO-AIV04-01	MIO-AIC04-01	MIO-AOV04-01	MIO-AOC04-01
Type	Input/Output Type	2 Channels Analog RTD Type	4 Channels Analog Voltage Type	4 Channels Analog Current Type	4 Channels Analog Voltage Type	4 Channels Analog Current Type
Power	Sensor Type and Input /Output Range	PT100 * -200.0 to +850.0°C	0 ~ 5 Vdc	0 ~ 20mA	0 ~ 5 Vdc	0 ~ 20mA
	Power Dissipation	Max. 70mA@5.0Vdc	Max. 200mA@5.0Vdc			
Characteristic	Field Power	Max. 60mA@24Vdc				
	Typ. Input Impedance	-	Min. 500KΩ	Max. 250Ω	-	
	Load	-	-	-	Min. 1KΩ	Max. 500Ω
	Data Format	16bits Integer				
	Resolution	0.0312°C/1bit	16bits, 0.076mV/1bit	16bits, 0.3uA/bit	16bits, 0.076mV/1bit	16bits, 0.3uA/bit
	Conversion Time	Approx. 70ms, All Channel@50Hz	4ms/All Channel			
	Module Error	±0.1% Full Scale@+25°C, ±0.3% Full Scale@-10°C, +50°C				
	Isolation	I/O to Logic: Capacitive Isolation, External Power : Transformer Isolation				
	Common Type	2COM (1Common/1Channel)	4COM (Single Common)			
	Other	Wiring	AWG 26 to 20			
Pin No.		Removable Terminal Block 10P				
Indicator		3 LED 2 Channel States, 1 Operating State	5 LED 4 Channel States, 1 Operating State			
Operation Temperature(°C)		-10 ~ +50				
Storage Temperature(°C)		-20 ~ +60				
Operation Humidity(%RH)		0 ~ 90(No dew)				
Atmosphere		No Corrosive Gas				
Environment	Vibration Endurance	Amplitude: 10sF < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)				
	Noise Immunity	1000Vp-p(Pulse Width 1μs)				
	Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV				
	Shock Endurance	10G X, Y, Z each Direction(for 3 Times)				
	Ground Connection	Class 3(100Ω Under)				
	Protection Classification	IP20				
	Certification	CE, KC, UL				
	External Dimension(mm)	12 x 101 x 75				
	Weight(kg)	0.06				
	Case Material	PC(Resistance to Flame)				

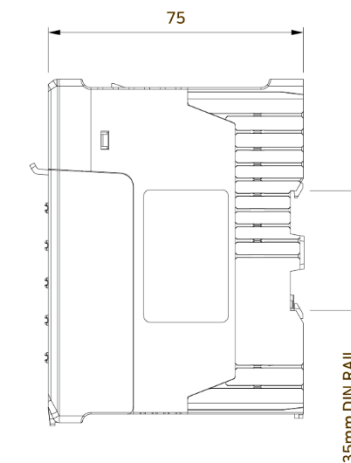
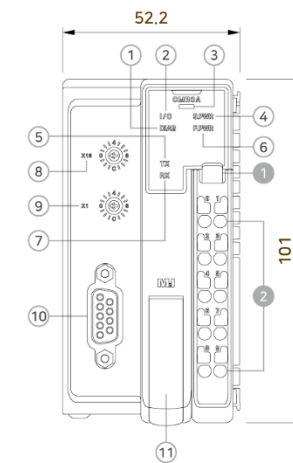
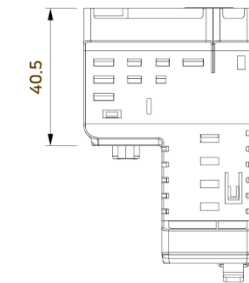
### MIO-PWR, COM SPECIFICATIONS

### EXPANSION MODULE

Functional	MIO-PWR0A	MIO-PWR0B	MIO-COM0A	MIO-COM0B	MIO-COM0C
Input System Voltage	24Vdc Typ.(20V ~ 28V)				-
Voltage Sag	24Vdc, Within 10ms				-
Insulation Resistance	500Vdc, 10MΩ				-
Current for I/O Module	1.4A@5Vdc				-
Isolation	System Power to Internal Logic: Isolation System Power I/O Driver: Isolation				-
Field Power	Supply Voltage: 24Vdc Typ. Supply Voltage Range: 11 ~ 28.8Vdc				
Max. Current Field Power Contact	Max. 7A@24Vdc				
Characteristic	Common Type	Not Support	16COM(Single Common) 24Vdc	16COM(Single Common) 0Vdc	8COM(Single Common) 24Vdc, 0Vdc
Wiring	AWG 26 to 20				
Pin No.	Removable Terminal Block 10P		Removable Terminal Block 16P		
Indicator	3 LED System Power Status, Module Status, Field Power Status	2 LED Module Status, Field Power Status	1 LED Module Status		
Operation Temperature(°C)	-10 ~ +50				
Storage Temperature(°C)	-20 ~ +60				
Operation Humidity(%RH)	0 ~ 90(No dew)				
Atmosphere	No Corrosive Gas				
Vibration Endurance	Amplitude: 10sF < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)				
Environment	Noise Immunity	1000Vp-p(Pulse Width 1μs)			
Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV				
Shock Endurance	10G X, Y, Z each Direction(for 3 Times)				
Ground Connection	Class 3(100Ω Under)				
Protection Classification	IP20				
Certification	CE, KC, UL		CE, UL		
External Dimension(mm)	12 x 101 x 75				
Weight(kg)	0.06				
Cooling System	Natural Air Circulation				
Case Material	PC(Resistance to Flame)				

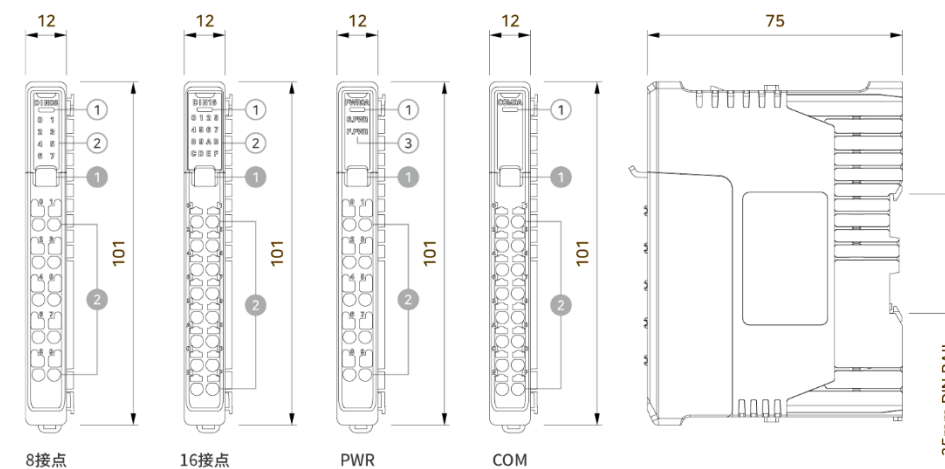
### DRAWING

COUPLER MODULE MIO-CM0A



- ① MODBUS状態表示LED
  - ② I/Oモジュール状態表示LED
  - ③ リモートI/Oカプラー状態表示LED
  - ④ システム電源状態LED
  - ⑤ TX状態表示LED
  - ⑥ フィールド電源状態LED
  - ⑦ RX状態表示LED
  - ⑧ ノード番号設定スイッチ16倍率
  - ⑨ ノード番号設定スイッチ1倍率
  - ⑩ MODBUS通信ポート
  - ⑪ USBコネクタカーバ
- 
- ① 分離フック
  - ② チャンネル接点

I/O MODULE, EXPANSION MODULE



- ① 状態表示LED
  - ② 接点入力状態LED
  - ③ システム電源、フィールド電源状態LED
- 
- ① 分離フック
  - ② チャンネル接点

# LoRa

## Long Range Wide-Area Network

Gateway(MIO-LPG00) / EndNode(MIO-LPE00)



## LoRa 特長点

### LoRa通信技術を利用し 自体プロトコール及びネットワーク網構成

別当の通信費用なしに使用可能

### 一つのLoRa EndNodeで多様な 入出力を提供

デジタルIN/OUT、リレー接点、アナログ電流/電圧

### 多様なテストを合格した産業用製品で 安全で強い性能

衝撃、ノイズ、静電気、温度等多様なテスト合格

### 便利な環境設定方式提供

MODEボタンを使うLoRa Gateway/EndNode間  
自動環境設定可能

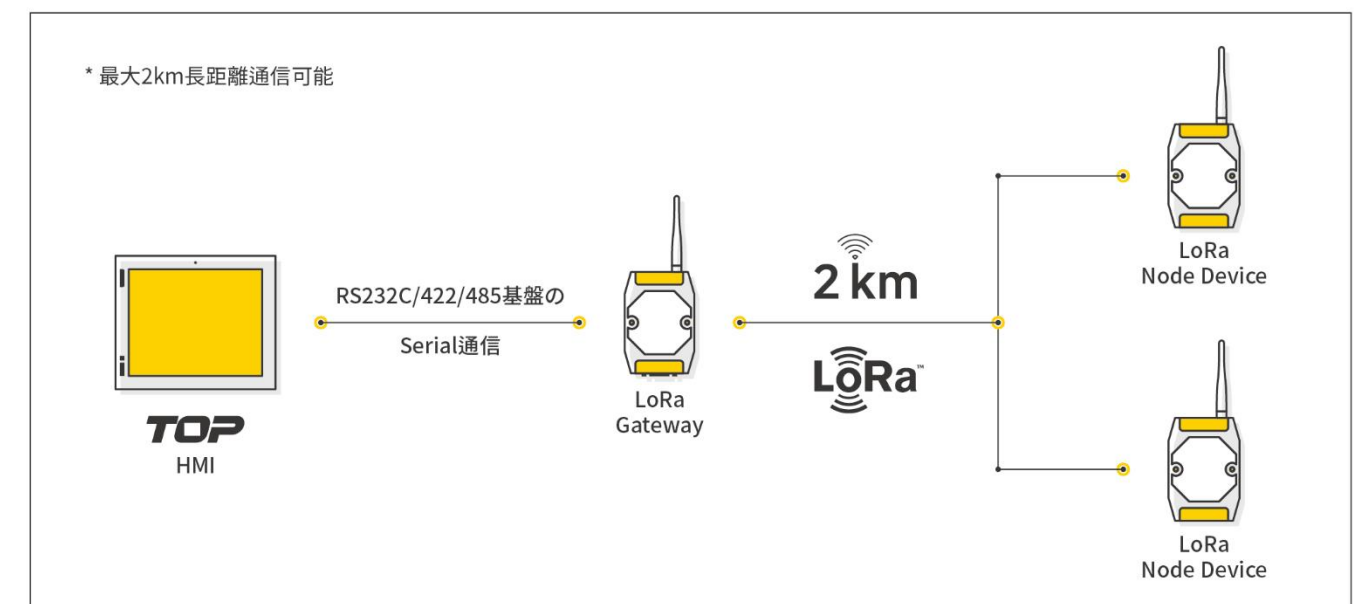
製品上段のスイッチで周波数とSF設定を即時変更可能

## LoRa 使用方法

\* 詳細使用方法はマニュアルをご覧ください。

- 01 [M2I LoRa 設定機]からLoRa Gateway/EndNodeの環境設定をUSBケーブルでダウンロードします。
  - 02 TOP製品とLoRa Gatewayをシリアル通信(RS-232C/422/485)で接続します。
  - 03 TOP Design Studioで当シリアルポートにLoRa Gatewayを追加し、通信オプションでLoRa EndNodeの数だけDevice IDを登録します。
- ! TOPでLoRa Gatewayのデータをモニタリング/制御可能で、LoRa GatewayはLoRa通信でLoRa EndNodeのデータを送受信できます。

## LoRa 接続図



## LoRa SPECIFICATIONS

## GATEWAY

Functional		MIO-LPG00
Power	Input Voltage	24Vdc(20 ~ 28Vdc)
	Power Dissipation	3W Less
	Voltage Sag	24Vdc, Within 10ms
	Insulation Resistance	500Vdc, 10MΩ
LoRa RF	RF Frequency	TX: 922.1 ~ 923.1 MHz, RX: 923.3 MHz
	Output Power	Max. 25mW(+14dBm, With Antenna)
	Communication Distance	Within 2Km
	Antenna	1T1R Dipole, +3.2dBm
	Security Setting	AES-128
Interface	Serial Comm.	RS-232C, 485/422 Asynchronous Data Bit: 7/8 Bits, Stop Bit: 1/2 Bits, Parity Bit: None/Odd/Even, Baud Rate: 2400 ~ 115.2kbps Connector: DSUB 9Pin x 1
	USB	Connector: USB Mini - B x 1
Other	Status LED	4 LEDs(Power, LoRa, Serial TX, RX) Built in
	Frequency Selection	Rotary Switch, Select 1 Out of 6 Channels
	SF Selection	Rotary Switch, Select 7 Out of 12 Setting
	Reset Button	Support
	Mode Button	Support
Environment	Operation Temperature(°C)	-10 ~ +50
	Storage Temperature(°C)	-20 ~ +60
	Operation Humidity(%RH)	0 ~ 90(No Dew)
	Atmosphere	No Corrosive Gas
	Vibration Endurance	Amplitude: 10±F < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)
	Noise Immunity	1000Vp-p(Pulse Width 1µs)
	Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV
	Shock Endurance	10G X, Y, Z each Direction(for 3 Times)
	Ground Connection	Class 3(100Ω Under)
	Protection Classification	IP20
Structure	Certification	KC
	External Dimension(mm)	72 x 305 x 44.6(*With Antenna)
	Weight(kg)	0.14
	Cooling System	Natural Air Circulation
	Case Material	ABS(Resistance to Flame)

## LoRa SPECIFICATIONS

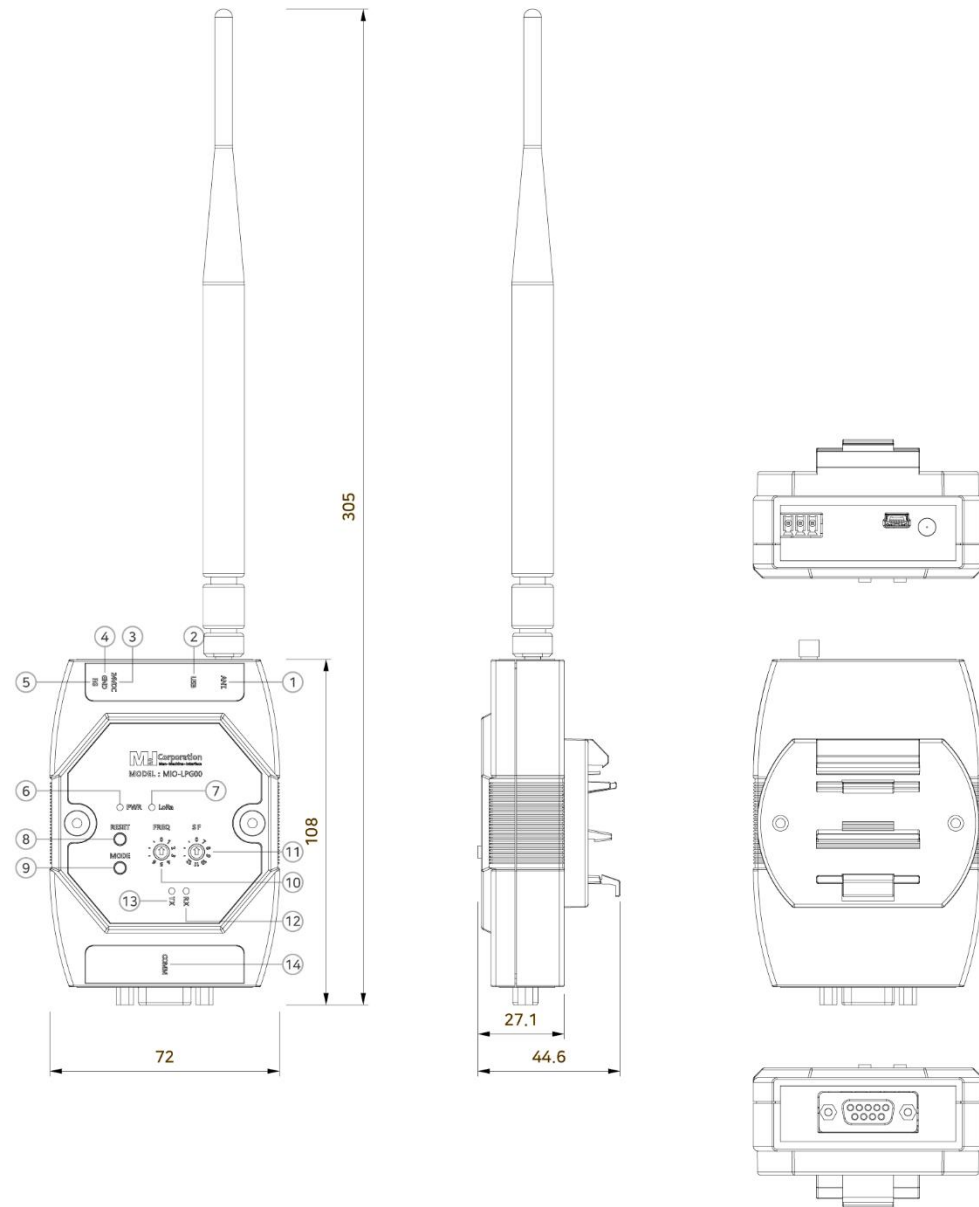
## ENDNODE

Functional		MIO-LPE00	
Power	Input Voltage	24Vdc(20 ~ 28Vdc)	
	Power Dissipation	3W Less	
	Voltage Sag	24Vdc, Within 10ms	
	Insulation Resistance	500Vdc, 10MΩ	
LoRa RF	RF Frequency	TX: 922.1 ~ 923.1 MHz, RX: 923.3 MHz	
	Output Power	Max. 25mW(+14dBm, With Antenna)	
	Communication Distance	Within 2Km	
	Antenna	1T1R Dipole, +3.2dBm	
	Security Setting	AES-128	
	Serial Comm.	-	
I/O Interface	USB	Connector: USB Mini - B x 1	
	Analog Current Input	Connector	3.5mm TB
		Assigned Channel	2 Channel
		Input Range	4 ~ 20 mA
	Resolution and Accuracy	16-bit, ±0.1%@25°C or better	
Analog Voltage Input	Connector	3.5mm TB	
	Assigned Channel	2 Channel	
	Input Range	0 ~ 5Vdc	
	Resolution and Accuracy	16-bit, ±0.1%@25°C or better	
Digital Input	Connector	3.5mm TB	
	Type	3 Channel Source or Sink	
Digital Output	Output Current in On State	Max. 4mA/Channel @24Vdc	
	Connector	3.5mm TB	
	Type	2 Channel Sink	
Relay Output	Output Current in On State	Max. 0.5A/Channel @24Vdc	
	Connector	3.5mm TB	
	Type	2 Channel Relay	
	Output Current in On State	1A/30Vdc, 0.3A/125Vac	
Other	Status LED	9 LEDs(Power, LoRa, Each I/O: 7LEDs) Built in	
	Frequency Selection	Rotary Switch, Select 1 Out of 6 Channels	
	SF Selection	Rotary Switch, Select 7 Out of 12 Setting	
	Reset Button	Support	
	Mode Button	Support	
Environment	Operation Temperature(°C)	-10 ~ +50	
	Storage Temperature(°C)	-20 ~ +60	
	Operation Humidity(%RH)	0 ~ 90(No Dew)	
	Atmosphere	No Corrosive Gas	
	Vibration Endurance	Amplitude: 10±F < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)	
	Noise Immunity	1000Vp-p(Pulse Width 1µs)	
	Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV	
	Shock Endurance	10G X, Y, Z each Direction(for 3 Times)	
	Ground Connection	Class 3(100Ω Under)	
	Protection Classification	IP20	
Structure	Certification	KC	
	External Dimension(mm)	72 x 300 x 44.6(*With Antenna)	
	Weight(kg)	0.14	
	Cooling System	Natural Air Circulation	
	Case Material	ABS(Resistance to Flame)	



## DRAWING

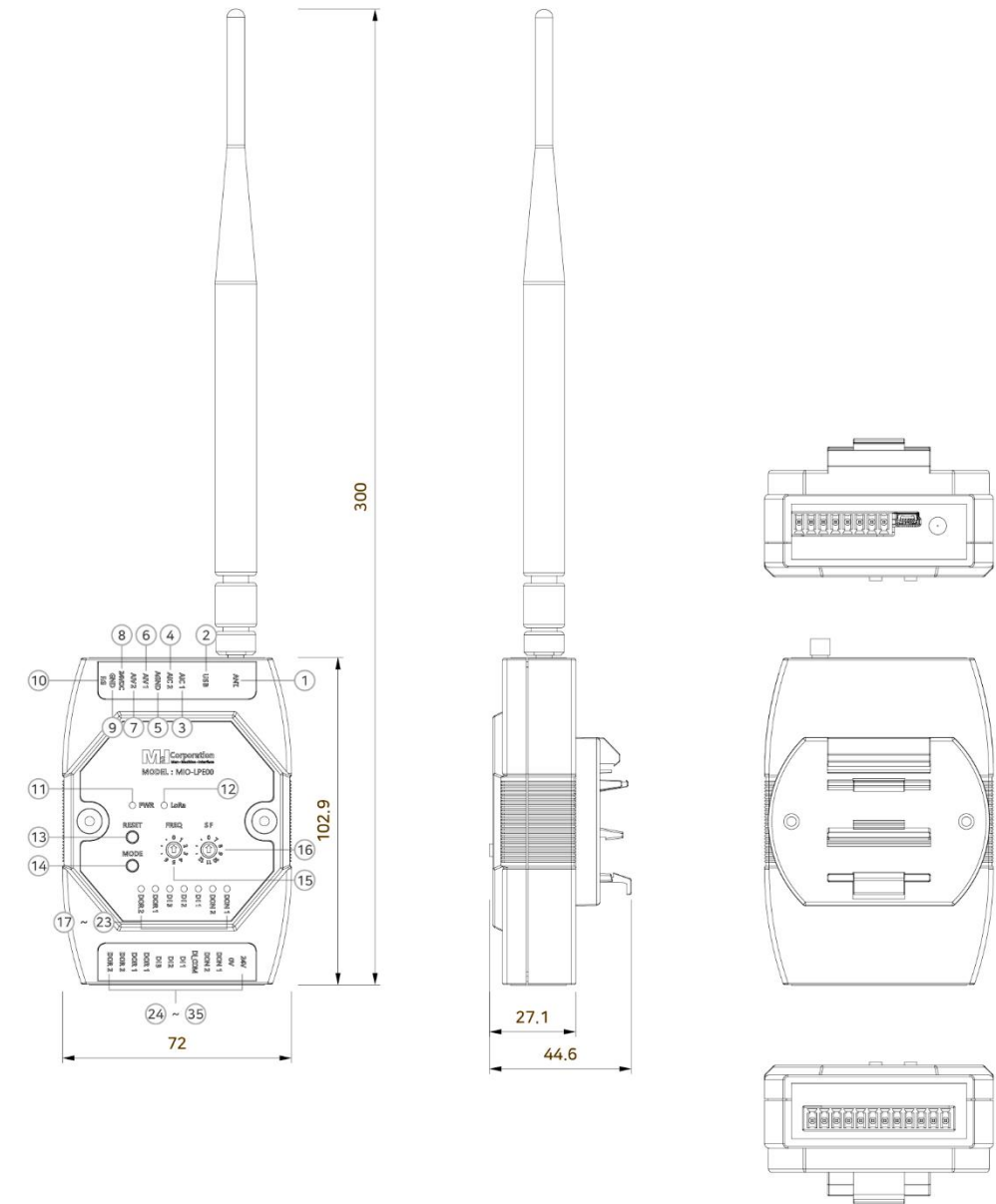
MIO-LPG00



- |                    |                          |
|--------------------|--------------------------|
| ① LoRaアンテナ締結部      | ⑧ システムリセットスイッチ           |
| ② USB設定コネクタ        | ⑨ MODE動作スイッチ             |
| ③ システム電源DC 24V入力端子 | ⑩ 周波数チャンネル[0 ~ 6]変更スイッチ  |
| ④ システム電源GND端子      | ⑪ SF設定[0]、[7 ~ 12]変更スイッチ |
| ⑤ F.G端子            | ⑫ COMM通信の受信状態表示          |
| ⑥ システム電源状態表示       | ⑬ COMM通信の送信状態表示          |
| ⑦ LoRa通信状態表示       | ⑭ シリアル通信コネクタ             |

## DRAWING

MIO-LPE00



- |   |                     |                          |
|---|---------------------|--------------------------|
| ① LoRaアンテナ締結部   | ⑥ アナログ電圧入力1番チャンネル端子 | ⑬ システムリセットスイッチ           |
| ② USB設定コネクタ   | ⑦ アナログ電圧入力2番チャンネル端子 | ⑭ MODE動作スイッチ             |
| ③ アナログ電流入力1番チャンネル端子   | ⑧ システム電源DC 24V入力端子  | ⑮ 周波数チャンネル[0 ~ 6]変更スイッチ  |
| ④ アナログ電流入力2番チャンネル端子   | ⑨ システム電源GND端子       | ⑯ SF設定[0]、[7 ~ 12]変更スイッチ |
| ⑤ AIC 1、2/AIV 1、2共通端子<br>* フィールド電源(0V)接続端子<br>** ソースタイプで接続時使用 | ⑩ F.G端子             | ⑰ ~ ⑳ 動作状態表示LED          |
|   | ⑪ システム電源状態表示        | ㉑ ~ ㉒ I/O入出力端子           |
|   | ⑫ LoRa通信状態表示        |                          |

# 産業用バーコードリーダー

Industrial Barcode Scanner

MSR-B2MWA



## 産業用バーコードリーダー特長点

### 強くて便利なデザイン

衝撃に強い設計とウレタン外形  
グリップ感が優秀で携帯性が高い小型デザイン  
固定ストラップ提供

### 有無線の多様なインターフェース

2.4GHz RF 無線通信(USB dongle接続)  
USB通信(USBケーブル接続)  
IrDA赤外線通信(自社HMIと専用通信)

### バーコードデータの安全な管理

1D、2Dバーコード支援  
最大25,000個バーコードを保存できるメモリー搭載で  
安全なデータ管理

### 効率的動作時間運用

完全充電時13時間動作可能なバッテリー提供  
節電機能提供

## インターフェース

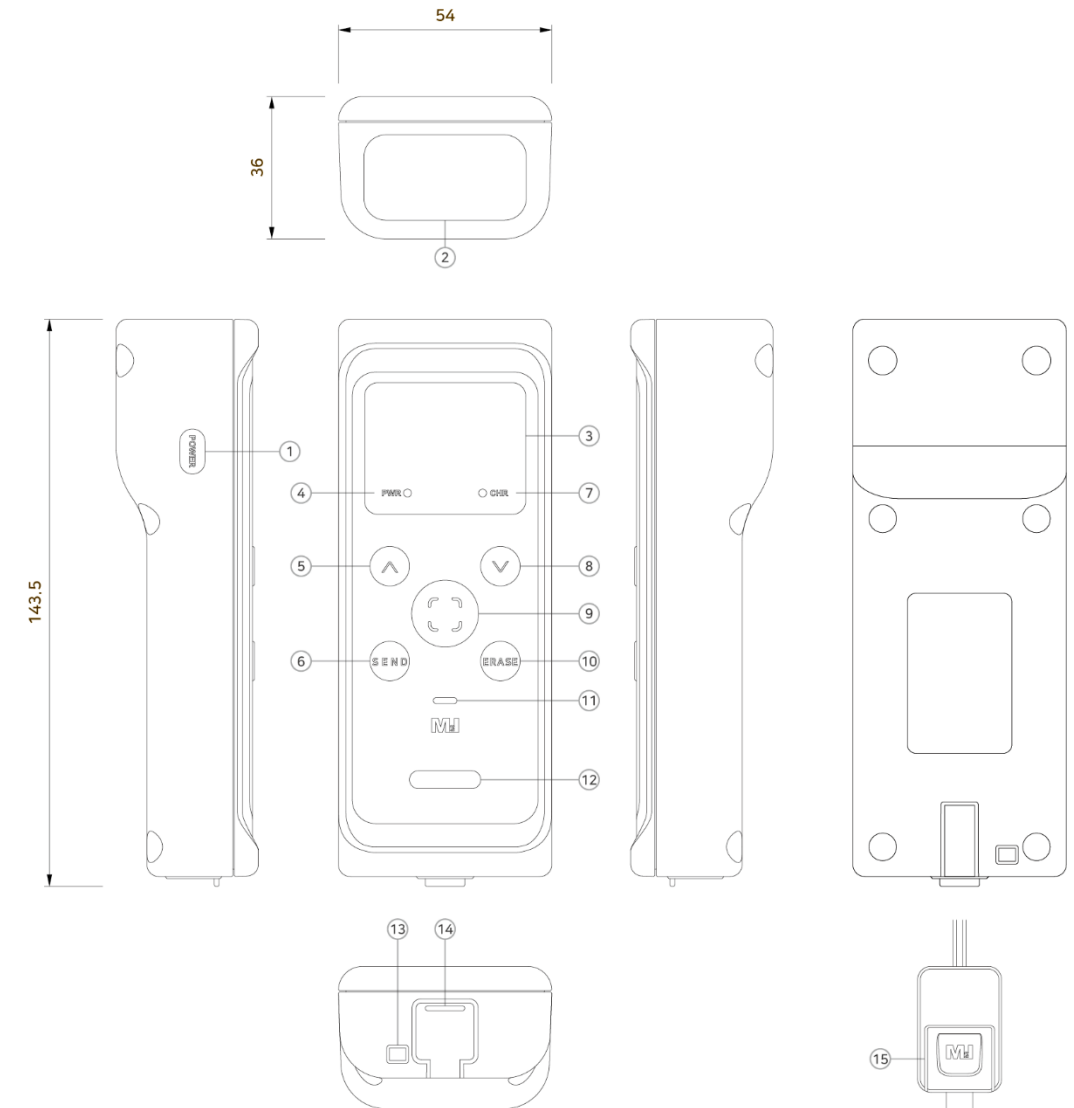


### MSR-B2MWA SPECIFICATIONS

Functional	MSR-B2MWA	MSR-B2MWA-DONGLE	
Display Type	1.3" OLED	-	
Color	Gray	Gray	
Display	Display Area(mm)	31.42 x 16.7	
	Resolution(dot)	128 x 64	
	Display Life	50,000 Hours	
Barcode	Type	640 x 400 1D/2D CMOS Barcode	
	Symbologies	Code 39, Code 128, PDF417, UPC, Data Matrix, QR Code	
USB	USB Type C, V1.1 Compatible 1 Channel	USB A Type, V1.1 Compatible 1 Channel	
	IrDA	Compliant to IrDA Physical Layer Standard Up to 115.2 kbit/s(SIR), Range Up to 1.0M in Open Space Connection with M2I HMI Equipment	-
Interface	2.4GHz RF	2322MHz to 2527MHz, IEEE 802.15.4, Range Up to 15M in Open Space	
	Function Key	Unlock Type Push Switch 6EA (Power/Scan/Send/Erase/Up/Down)	-
Memory	Storage Memory	512KB	
Battery	Rechargeable Battery	Single Li-ion 3.7Vdc 1800mAh Operating Time: 13 Hours Charging Time: 5.5 Hours(Non-Operating)	
Power	Consumption	3W Less	
Other	Status LED	2 LEDs(Power, Charge) Built in	
Environment	Operation Temperature(°C)	+10 ~ +45	
	Storage Temperature(°C)	-20 ~ +60	
	Protection Classification	Product Body IP67	
	Operation Humidity(%RH)	0 ~ 90(No Dew)	
	Atmosphere	No Corrosive Gas	
	Vibration Endurance	Amplitude: 10≤F<25Hz(2G) X, Y, Z each Direction(for 30 Minutes)	
	Static Electricity Discharge	Connective Discharge from EN61000-4-2: ±4kV	
	Shock Endurance	10G X, Y, Z each Direction(for 3 Times)	
	Certification	KC	
Structure	External Dimension(mm)	143.5 x 54 x 36	
	Weight(kg)	0.18	
	Case Material	PC, Urethane	

### DRAWING

MSR-B2MWA



- ① 電源スイッチ
- ② スキャナーウインドウ及び赤外線送受信
- ③ OLED
- ④ 電源表示灯
- ⑤ Upスイッチ
- ⑥ Sendスイッチ
- ⑦ 充電状態表示灯
- ⑧ Downスイッチ
- ⑨ Scanスイッチ
- ⑩ Eraseスイッチ
- ⑪ プザー穴
- ⑫ 状態表示灯
- ⑬ ストラップ固定穴
- ⑭ 後部カバー
- ⑮ USB dongle (ストラップに含む)

# 防爆無線バーコードリーダー

Industrial Explosion-Proof Barcode Scanner

MSR-B2MWA-Ex



KCs(Ex ib IIC T4 Gb)、Zone1使用可能

## 産業用防爆バーコードリーダー特長点

### 本質安全防爆構造

KCs: Ex ib IIC T4 Gb, Zone 1

UL/cUL: Class I, Division 2 Groups A, B, C and D

### 強くて便利なデザイン

衝撃に強い設計とウレタン外形

グリップ感が優秀で携帯性が高い小型デザイン

固定ストラップ提供

### 無線インターフェース

Bluetooth通信

IrDA赤外線通信(自社HMIと専用通信)

### バーコードデータの安全管理

1D、2Dバーコード支援

LEDで伝送状態確認

最近10個までのバーコードデータ保存

## インターフェース



2.4GHz Bluetooth LE無線通信

2.4GHz Bluetooth LE, Range Up to 5M+ in Open Space

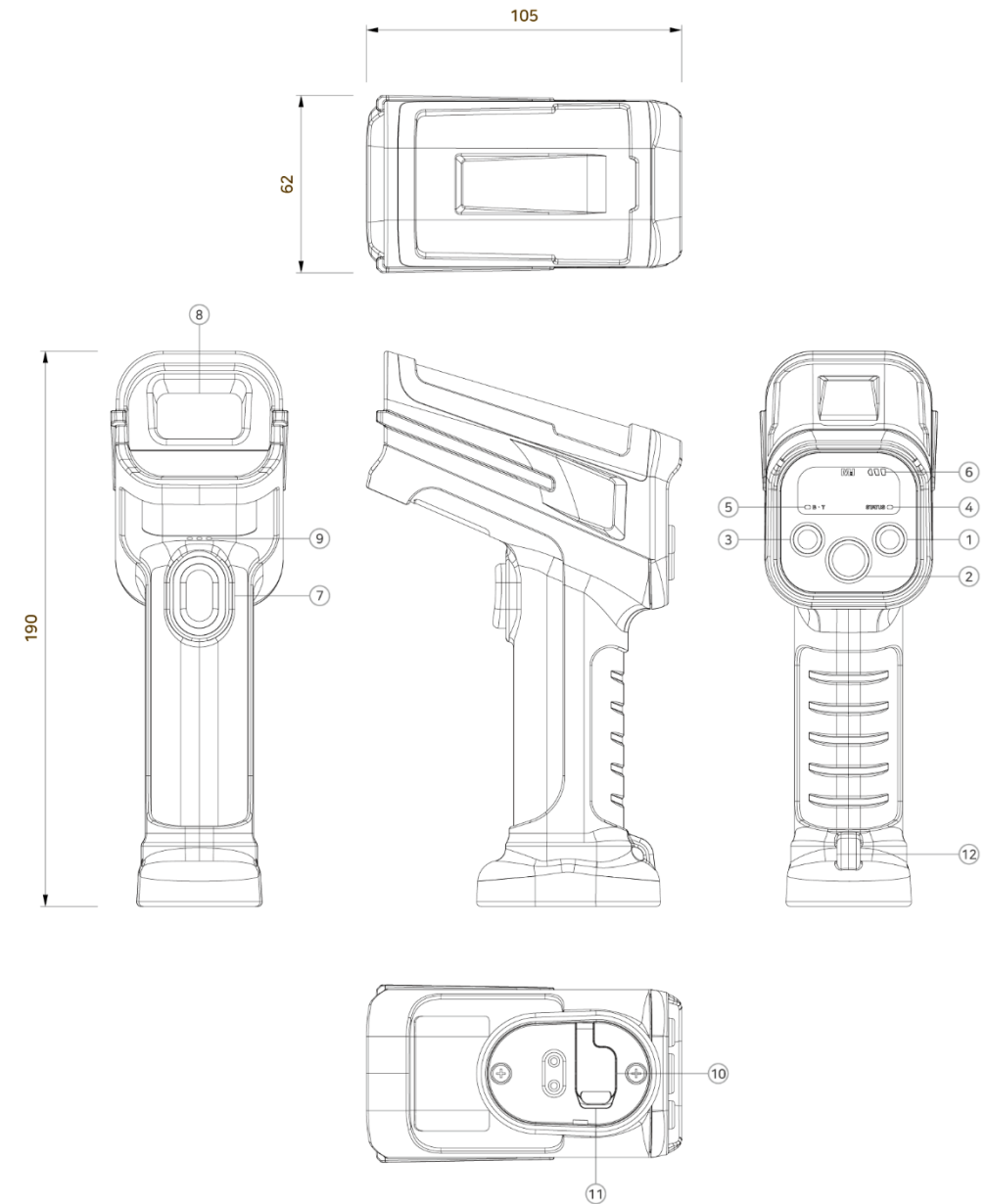


### MSR-B2MWA-Ex SPECIFICATIONS

Functional	MSR-B2MWA-Ex
Display	Display Type LED
	Indicators Bluetooth, Status, Battery Gauge
Barcode	Type 640 x 400 1D/2D CMOS Barcode
	Symbologies Code 39, Code 128, PDF417, UPC, Data Matrix, QR Code
USB	USB Type C, Charge Only
Interface	IrDA Compliant to IrDA Physical Layer Standard Up to 115.2 kbit/s(SIR), More than 0.5M in Open Space Connection with M2I HMI Equipment
	2.4GHz RF 2402MHz to 2480MHz, Bluetooth 5.2 LE, Range Up to 5M in Open Space
	Function Key Unlock Type Push Switch 4EA(Power/Bluetooth/Send/Scan)
Battery	Rechargeable Battery Single Li-ion 3.6Vdc, 2500mAh Operating Time: 6+ Hours(18000+, 1Second interval) Charging Time: 5 Hours(Non-Operating) Standby On: 29+ Hours
Power	Consumption 3W Less
	Operation Temperature(°C) -10 ~ +50
Environment	Storage Temperature(°C) -20 ~ +60
	Protection Classification IP66
	Operation Humidity(%RH) 0 ~ 90(No Dew)
	Atmosphere No Corrosive Gas
	Vibration Endurance Amplitude: 10≤F < 25Hz(2G) X, Y, Z each Direction(for 30 Minutes)
	Static Electricity Discharge Connective Discharge from EN61000-4-2: ±4kV
	Shock Endurance 10G X, Y, Z each Direction(for 3 Times)
	Certification KC, CE, KCs, UL/cUL in Hazloc
	External Dimension(mm) 188.9 x 100.1 x 60.3
	Structure
Case Material PC, Urethane	

### DRAWING

MSR-B2MWA-Ex



- ① 電源スイッチ
- ② Sendスイッチ
- ③ ブルートゥーススイッチ
- ④ 状態表示灯
- ⑤ ブルートゥース表示灯
- ⑥ バッテリーレベル
- ⑦ Scanスイッチ
- ⑧ スキャナーウインドウ及び赤外線送受信
- ⑨ プザー穴
- ⑩ 下部カバー
- ⑪ USB-Cポート充電端子
- ⑫ ストラップ固定穴