

注意 | 产品开机前, 请务必详读使用手册。
实际产品的颜色可能会与产品名录上的颜色略微差异。
本产品名录的内容可能会事先没有通知而更改。



SMART DEVICE



SMART DEVICE

Product Catalog

MX On Corporation

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MX On Corporation 基于 HMI/SCADA 的开发与制造，
拥有扩展至机器人控制与物流自动化领域的技术能力，
是一家基于 AX·DX 的智能工厂全方位解决方案平台企业。

SMART DEVICE

CONTENTS

SMART DEVICE 产品系列介绍	04P	MIO LoRa SERIES 工业无线通信设备	22P
MSR SERIES 工业条码扫描器	06P	MGW SERIES 连接工业设备的物联网网关	28P
MWD SERIES 条码扫描器加密狗	10P	全球业务网络与服务 采购及技术咨询	32P
MIO Remote I/O SERIES 工业远程I/O	14P		

SMART DEVICE LINE-UP



MSR Ex

兼具安全性与使用便利性的高可靠性工业条码扫描器
防爆型 / 非防爆型条码扫描器



MWD Ex

用于轻松扩展与不支持 IrDA 或蓝牙设备连接的适配器
(条码扫描器专用) 防爆及非防爆无线通信适配器



MIO REMOTE I/O

紧凑型远程 I/O 设备, 增强系统灵活性和效率
工业远程 I/O



MIO LoRa

基于 LoRa 的安全设备, 提供多种 I/O,
支持最长 2 公里远程无线通信
工业无线通信设备



MGW

支持 400 多种工业通信协议的数据集成转换器
连接工业设备的物联网网关

MSR SERIES

防爆型 / 非防爆型条码扫描器

Ex  |   (进行中)

Non-Ex 



防爆无线条码扫描器
(支持 IrDA 和蓝牙)

标准有线/无线条码扫描器
(支持 IrDA 和 USB)



FEATURES

防爆无线条码扫描器 | MSR-B2MWA-Ex

本质安全型防爆结构

UL/cUL: Class 1, Division 2 组别 A、B、C、D, T6
IECEX、ATEX、KCs: Ex ic ec IIC T6 (进行中)

现场首选的手枪型设计

耐冲击聚氨酯外壳
IP66等级防水防尘性能
握感极佳的小型设计

支持 IrDA / Bluetooth 无线通信

支持本公司HMI的IrDA多重发送(Multi SEND)
通过MWD加密狗实现与第三方HMI、PC的IrDA兼容通信
支持本公司HMI、PC与MWD加密狗的Bluetooth配对

条码数据安全

可临时存储最近20条条码
通过LED指示灯确认传输状态

标准有线/无线条码扫描器 | MSR-B2MWB

兼具耐用性与便携性的紧凑设计

耐冲击聚氨酯外壳设计
IP67等级防水防尘性能
握感出色的小型设计

支持有线和无线 USB 通信

通过 USB 加密狗实现便捷的 2.4GHz 射频无线通信
通过 USB 数据线实现稳定的有线通信

广泛兼容 IrDA 红外通信

完全支持自家 HMI 及多重传输 (Multi SEND) 功能
通过 MWD 加密狗实现与第三方 HMI、PC 等多种设备的兼容通信

安全的条码数据管理

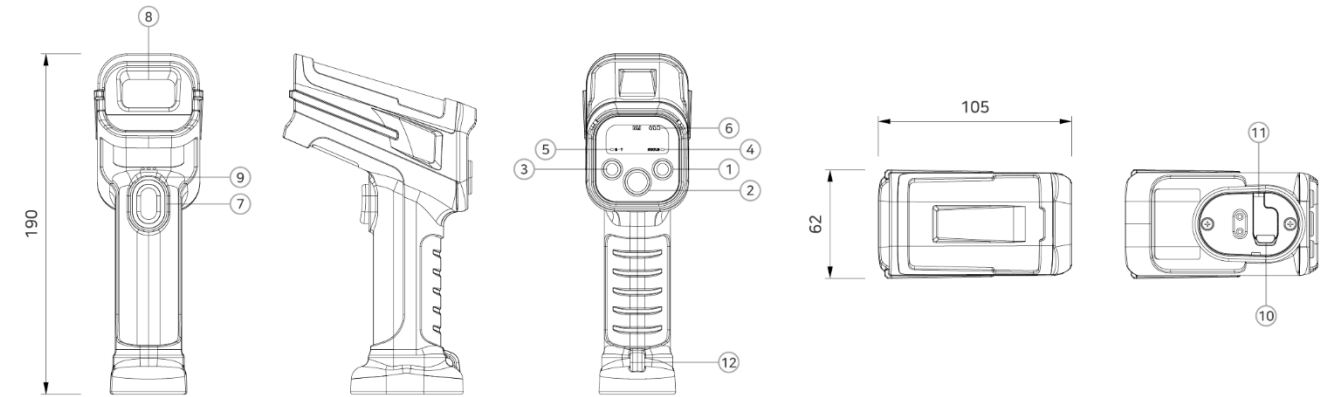
内置存储器, 可存储最多 25,000 条条码
使用上下 (UP/DOWN) 按钮可选择性传输所需数据

MSR SPECIFICATIONS

Functional	MSR-B2MWA-Ex	MSR-B2MWB	MSR-B2MWA-DONGLE
Display	Display Type	LED	1.3" OLED
	Color	-	Gray
	Display Area(mm)	-	31.42 x 16.7
	Resolution(dot)	-	128 x 64
	Display Life	-	50,000 Hours
	Indicators	Bluetooth, Status, Battery Gauge	-
Barcode	Type	640 x 400 1D/2D CMOS Barcode	1280 x 960, 1D/2D Barcode
	Symbologies	Code 39, Code 128, PDF417, UPC, Data Matrix, QR Code	
USB	USB Type C, Charge Only	USB Type C, V1.1 Compatible 1 Channel	USB A Type, V1.1 Compatible 1 Channel
Interface	IrDA	Compliant to IrDA Physical Layer Standard Up to 115.2 kbit/s(SIR), More than 0.5M in Open Space Connection with MX On HMI Equipment	Compliant to IrDA Physical Layer Standard Up to 115.2 kbit/s(SIR), Range Up to 1.0M in Open Space Connection with MX On HMI Equipment
	2.4GHz RF	2402MHz to 2480MHz, Bluetooth 5.2 LE, Range Up to 5M in Open Space	2322MHz to 2527MHz, IEEE 802.15.4, Range Up to 15M in Open Space
	Function Key	Unlock Type Push Switch 4EA (Power/Bluetooth/Send/Scan)	Unlock Type Push Switch 6EA (Power/Scan/Send/Erase/Up/Down)
Memory	Storage Memory	-	512KB
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	Single Li-ion 3.7Vdc 1800mAh Operating Time: 13 Hours Charging Time: 5.5 Hours(Non-Operating)
Power	Consumption	3W	3W
Other	Status LED	-	2 LEDs(Power, Charge) Built in
Environment	Operation Temperature(°C)	-10 ~ +50	+10 ~ +45
	Storage Temperature(°C)	-	-20 ~ +60
	Protection Classification	IP54	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, CE, UL/cUL in Hazloc KCs, IECEx, ATEX(On Progress)	KC, CE
	Structure	External Dimension(mm)	188.9 x 100.1 x 60.3
Weight(kg)		0.416	0.18
Case Material		PC, Urethane	PC

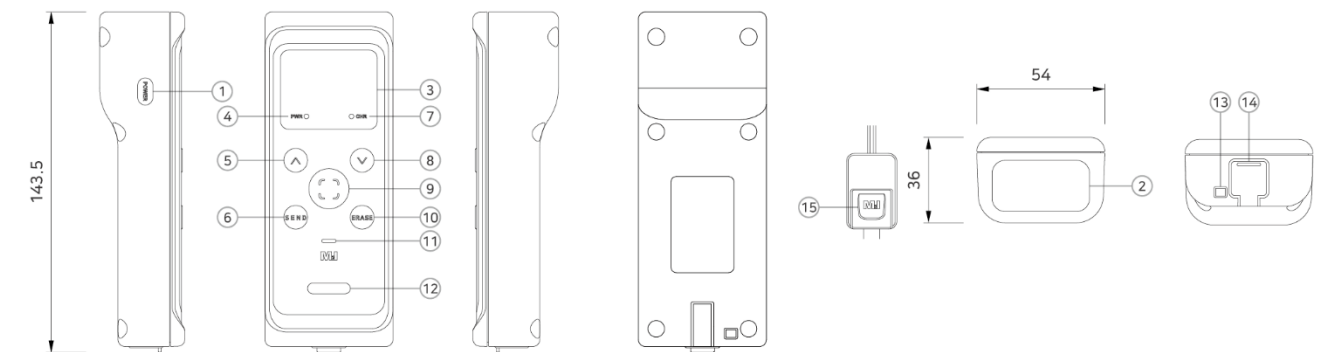
DRAWING

MSR-B2MWA-Ex



- ① Power Switch
- ② Send Switch
- ③ Bluetooth Switch
- ④ Status LED
- ⑤ Bluetooth Status LED
- ⑥ Battery Level
- ⑦ Scan Switch
- ⑧ Scanner Window and IrDA Transmit / Receive
- ⑨ Buzzer Hall
- ⑩ Bottom Cover
- ⑪ USB-C Port for Charging
- ⑫ Strap Holding Hole

MSR-B2MWB
MSR-B2MWA-DONGLE



- ① Power Switch
- ② Scanner Window and IrDA Transmit / Receive
- ③ OLED
- ④ Power Indicator
- ⑤ Up Switch
- ⑥ Send Switch
- ⑦ Charging Indicator
- ⑧ Down Switch
- ⑨ Scan Switch
- ⑩ Erase Switch
- ⑪ Buzzer Hall
- ⑫ Status LED
- ⑬ Strap Holding Hole
- ⑭ Rear Case
- ⑮ USB Dongle (Included in Strap)

MWD SERIES

(条码扫描器专用) 防爆及非防爆无线通信适配器

Ex    (进行中)

Non-Ex    (进行中)



FEATURES

通过 USB HID 模式提供广泛兼容性

基于 USB HID 的操作, 可与自家 HMI、第三方 HMI、PC 等多种设备完全兼容

USB 串行模式下实现稳定数据传输

使用 USB 串行模式时, 通过自家 HMI 专用协议确保数据可靠性

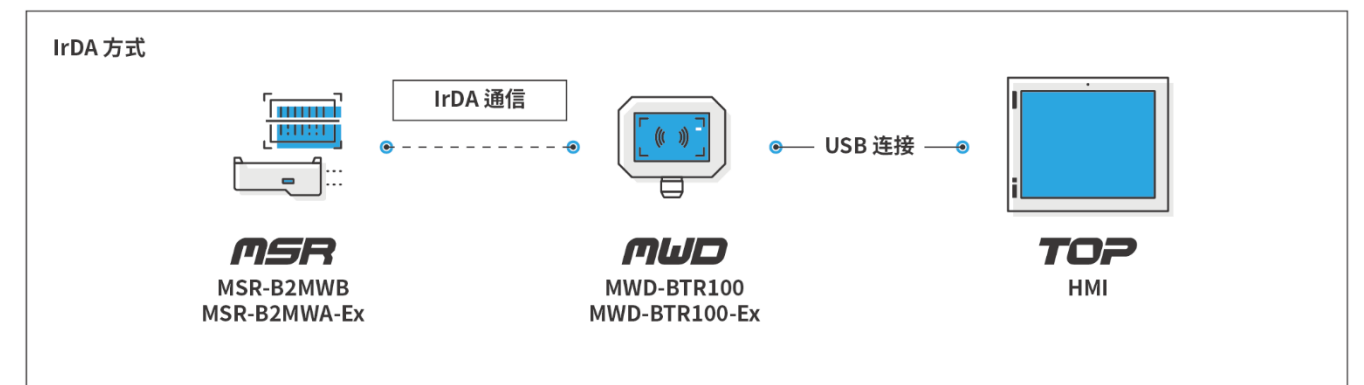
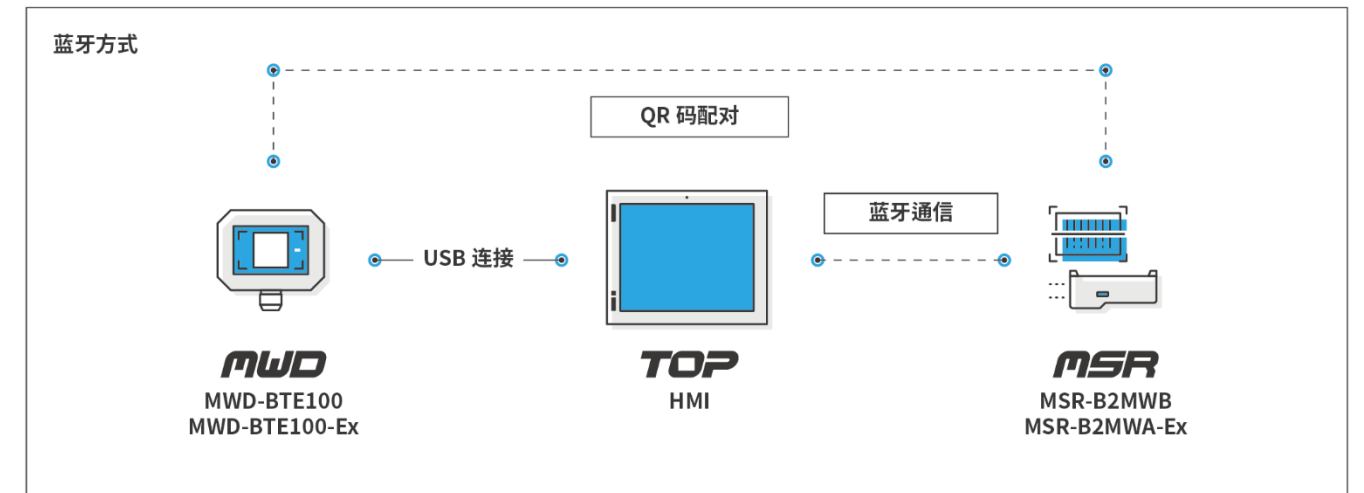
支持远距离蓝牙通信

- MWD-BTE100(-Ex): 传输距离约 8 米
- MWD-BTR100(-Ex): 传输距离约 5 米

通过 QR 码 / IrDA 更加便捷

在多条码阅读器环境下提供简易 QR 界面, 无需配对, 即可通过 IrDA 传感器即时传输数据

MWD连接方式



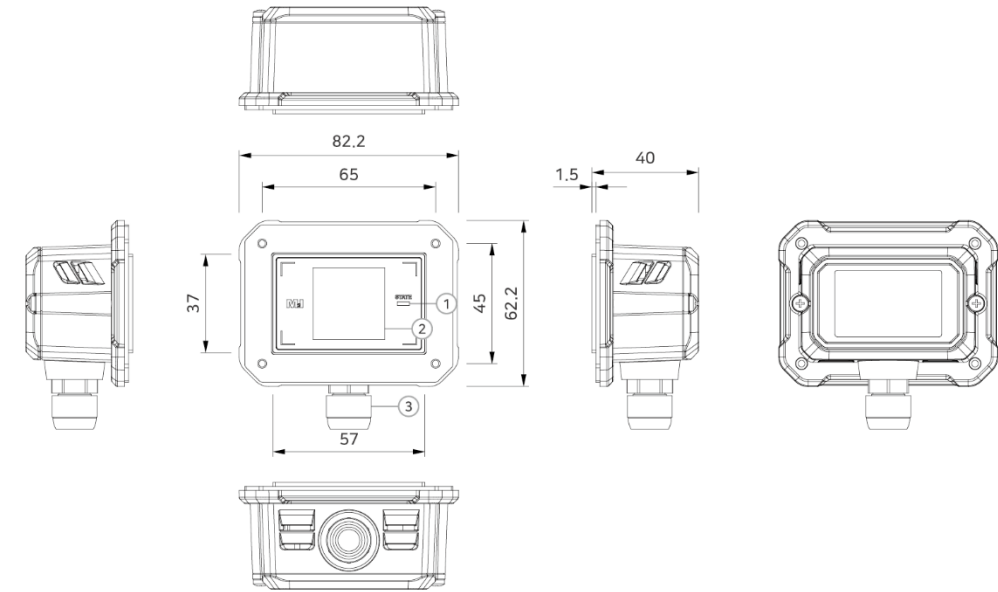
* 有关详细使用方法, 请参阅硬件手册。

MWD SPECIFICATIONS

	Non-Ex Model Ex Model	MWD-BTE100 MWD-BTE100-Ex	MWD-BTR100 MWD-BTR100-Ex
Display	E-Paper	1.54" Pairing QR	-
Status LED	RED	Power ON & Pairing Wait	HID Interface
	GREEN	Pairing OK	Serial Interface
Frequency		2400 ~ 2483.5Mhz	2402 ~ 2480Mhz
Spec.		Bluetooth® 5.1 Low Energy(BLE)	Bluetooth® 5.0 Low Energy(BLE)
Data Rate		1Mbps@Typ	
Wireless Bluetooth	Max Output	+8.5dBm@Typ	+0.55dBm(Including Antenna gain)
	RF Sensitivity	-96dBm@Typ	-
Operating Range		Up to 8 meters(communication in flat terrain)	Up to 5M in open space
Security(*AP Setting)		AES-128bit and AES-256bit encryption	WEP(64/128), WPA-PSK+(TKIP, AES), WPA2-PSK+(TKIP, AES) *AES Recommend
IrDA	IrDA	-	Compliant to IrDA physical layer standard up to 115.2 kbit /s(SIR), 0.7M@ Open space communication, MX On HMI dedicated communication
Power	USB	USB Type-A, for data communication and power supply, 1-meter cable length	
Environment	Operation Temperature(°C)	-20 ~ +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)	
	Static Electricity Discharge	Connective discharge from EN61000-4-2: ±4kV	
	Shock Endurance	10G X,Y,Z each direction(for 3 times)	
	Protection Classification	IP54	
	Certification(On Progress)	General Model: KC, CE, UL/cUL Explosion Proof Model: KC, CE, KCs	
	External Dimension(mm)	82.2 × 40 × 62.2	
Structure	Weight(kg)	0.1	
	Cooling System	Natural air circulation	
	Case Material	Plastic	

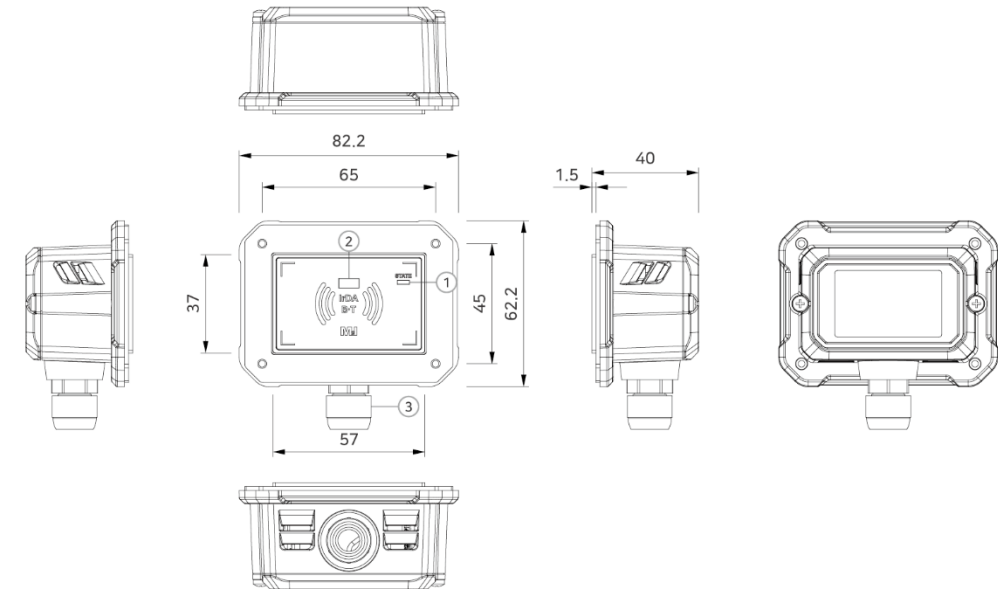
DRAWING

MWD-BTE100
MWD-BTE100-Ex



① Status LED ② E-Paper ③ USB 2.0

MWD-BTR100
MWD-BTR100-Ex



① Status LED ② IrDA Sensor ③ USB 2.0

MIO Remote I/O SERIES

工业远程I/O



MIO REMOTE I/O

FEATURES

Communication

支持 Modbus TCP、Modbus RTU、EtherCAT 等工业网络协议

Durability

坚固设计,可在噪声、振动、温度变化等多种工业环境下正常运行

Compact

超小型设计,最大化安装空间利用率并简化布线

Module

可组合各种 I/O 模块和扩展模块,根据现场条件优化配置(最多 32 个槽位)

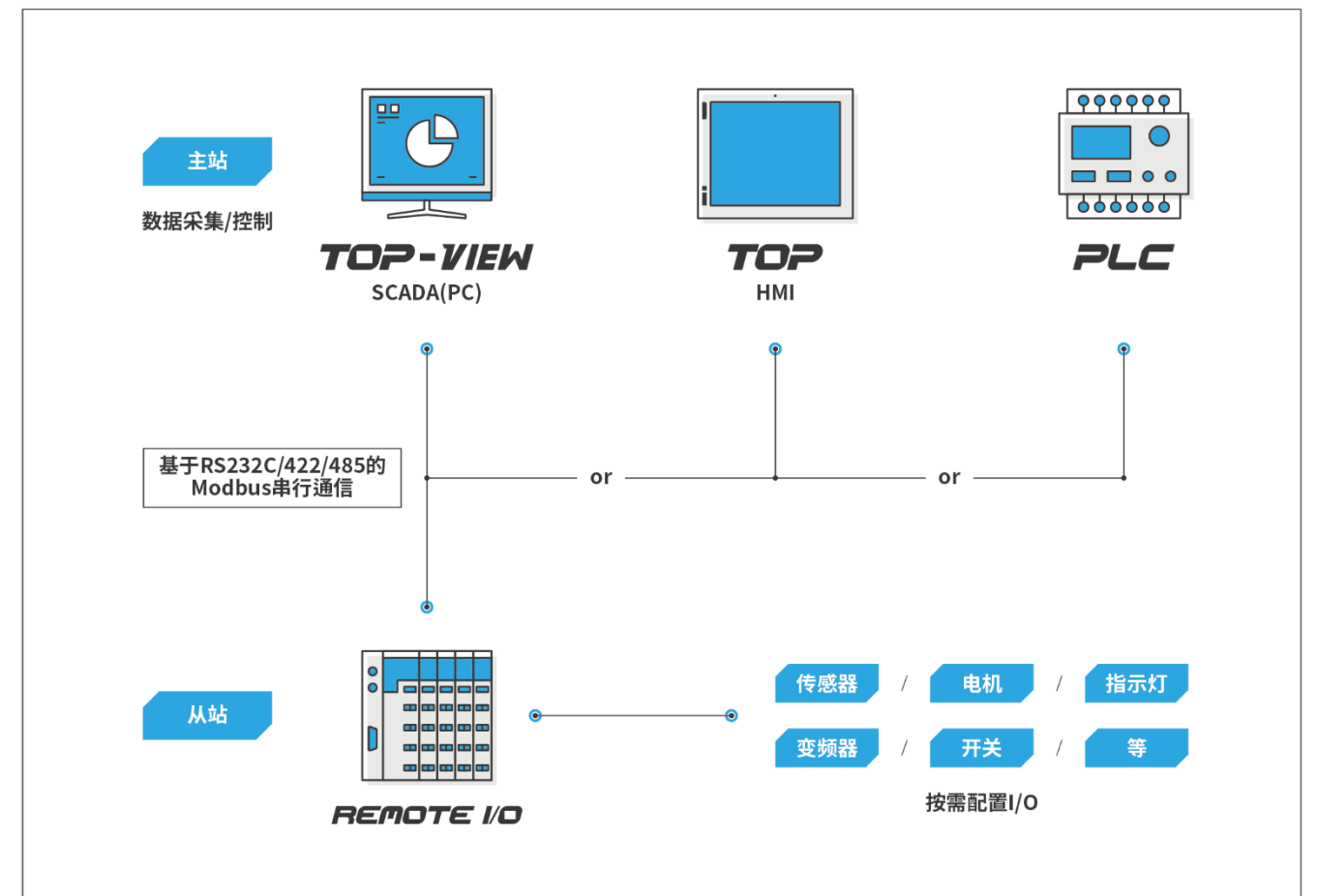
Hot Swap

无需断电即可在运行中更换模块,最大限度减少停机时间并提高维护效率

MIO Master

提供易于设置的专用软件(MIO Master)直观的界面,实现快速初始设置及实时控制/监控

远程I/O连接方式



MIO-CMR0A SPECIFICATIONS

COUPLER MODULE

Functional		MIO-CMR0A	MIO-CMT0A	MIO-CECOA	MIO-END-01	
Type	Protocol	Modbus RTU/ASCII	Modbus TCP	EtherCAT	-	
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	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	Connector: RJ-45 x 2			-	
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	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX 2-Port Ethernet Switch	IEEE802.3u, 100BASE-TX	-	
	Max. Length Bus Line	500m@RS-485/422, 10m@RS-232C	Up to 100m		-	
	Max. Expansion Module	32 Slots			-	
	Max. Nodes	255 Nodes@RS-485/422	Limited by Ethernet Specification	65,535	-	
	Node Setting	1 ~ 255		1 ~ 65,535	-	
	Baud Rate	Max. 187.5kbps	10/100Mbps	100Mbps	-	
	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	7 LED EtherCAT Status, EtherCAT RUN/ERR Status, I/O Module Status, Coupler Status, System Power 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: 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	KC, CE, UL/cUL			-	
	External Dimension(mm)	52.2 x 101 x 75			95.8 x 21.5 x 6.4	
	Weight(kg)	0.16			0.01	
	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: 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	KC, CE, UL/cUL				
	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: 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, CE, UL/cUL			
	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-AIRO2-01	MIO-AIVO4-01	MIO-AICO4-01	MIO-AOVO4-01	MIO-AOCO4-01
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			
	Field Power	Max. 60mA@24Vdc				
	Typ. Input Impedance	-	Min. 500KΩ	Max. 250Ω	-	
Characteristic	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)			
	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			
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, CE, UL/cUL				
	External Dimension(mm)	12 x 101 x 75				
	Weight(kg)	0.06				
	Cooling System	Natural Air Circulation				
	Case Material	PC(Resistance to Flame)				

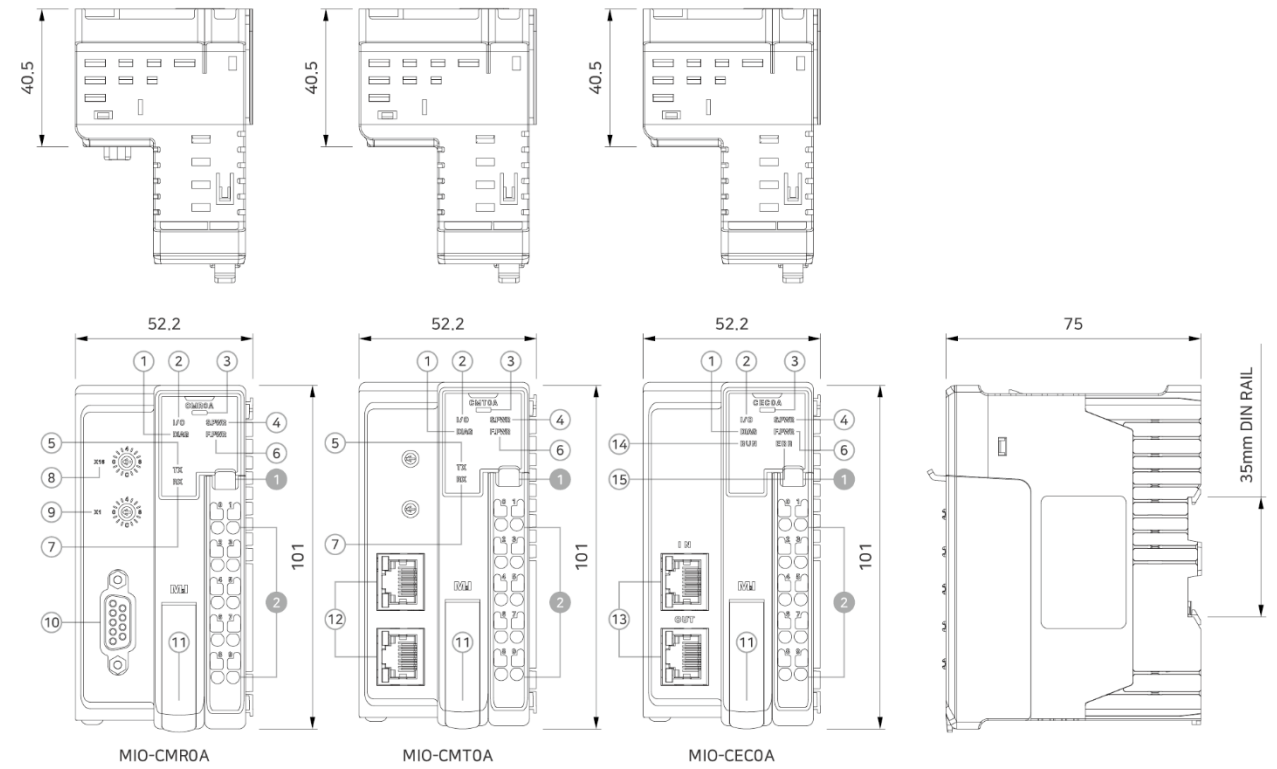
MIO-PWR, COM SPECIFICATIONS

EXPANSION MODULE

Functional	MIO-PWROA	MIO-PWR0B	MIO-COM0A	MIO-COM0B	MIO-COM0C
Power	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				
Characteristic	Field Power: Supply Voltage: 24Vdc Typ. Supply Voltage Range: 11 ~ 28.8Vdc Max. Current Field Power Contact: Max. 7A@24Vdc Common Type: Not Support 16COM(Single Common) 24Vdc 16COM(Single Common) 0Vdc 8COM(Single Common) 24Vdc, 0Vdc Wiring: AWG 26 to 20 Other: 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				
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 Certification: KC, CE, UL/cUL External Dimension(mm): 12 x 101 x 75 Weight(kg): 0.06				
Structure	Cooling System: Natural Air Circulation Case Material: PC(Resistance to Flame)				

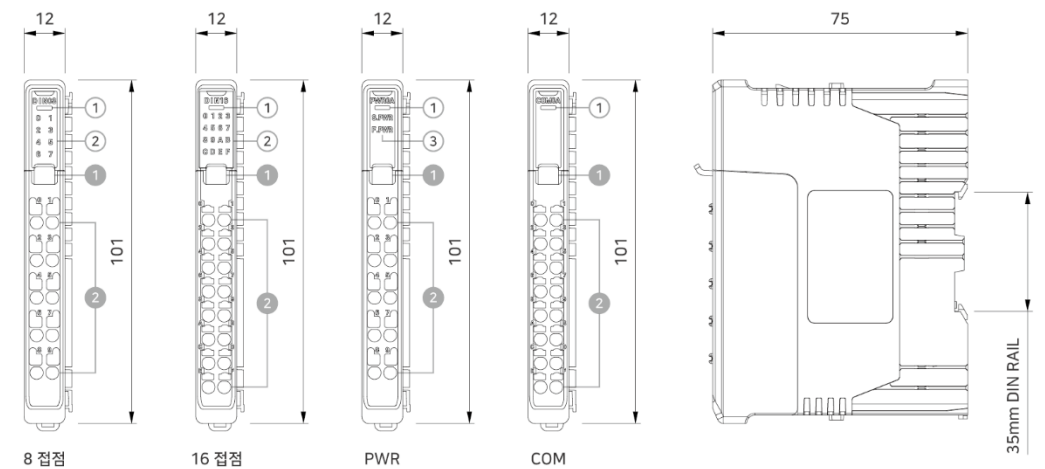
DRAWING

COUPLER MODULE



- ① Diagnostic LED
- ⑥ Field Power Status LED
- ⑪ USB Connector Cover
- ① Detachment Hook
- ② Extension I/O Module Status LED
- ⑦ RX Status LED
- ⑫ Ethernet
- ② Channel Terminal
- ③ Remote I/O Coupler Status LED
- ⑧ Node Number Setting Switch 16x
- ⑬ EthernetCAT I/O
- ④ System Power LED
- ⑨ Node Number Setting Switch 1x
- ⑭ Run Status LED
- ⑤ TX Status LED
- ⑩ MODBUS Communication Port
- ⑮ Error Status LED

I/O MODULE



- ① Status LED
- ② Terminal Input Status LED
- ③ System/Field Power Status LED
- ① Detachment Hook
- ② Channel Terminal

MIO LoRa SERIES

工业无线通信设备



MIO LoRa

FEATURES

通过LoRa通信技术可构成自己的网络与协议

不需要额外的通信费即可使用

一个终端节点提供多样的输入与输出

数字输入与输出, 继电器节点, 模拟电流与电压

通过各种测试的工业用产品 强力的性能

通过冲击、噪音、静电、温度测试

提供简便的设定方式

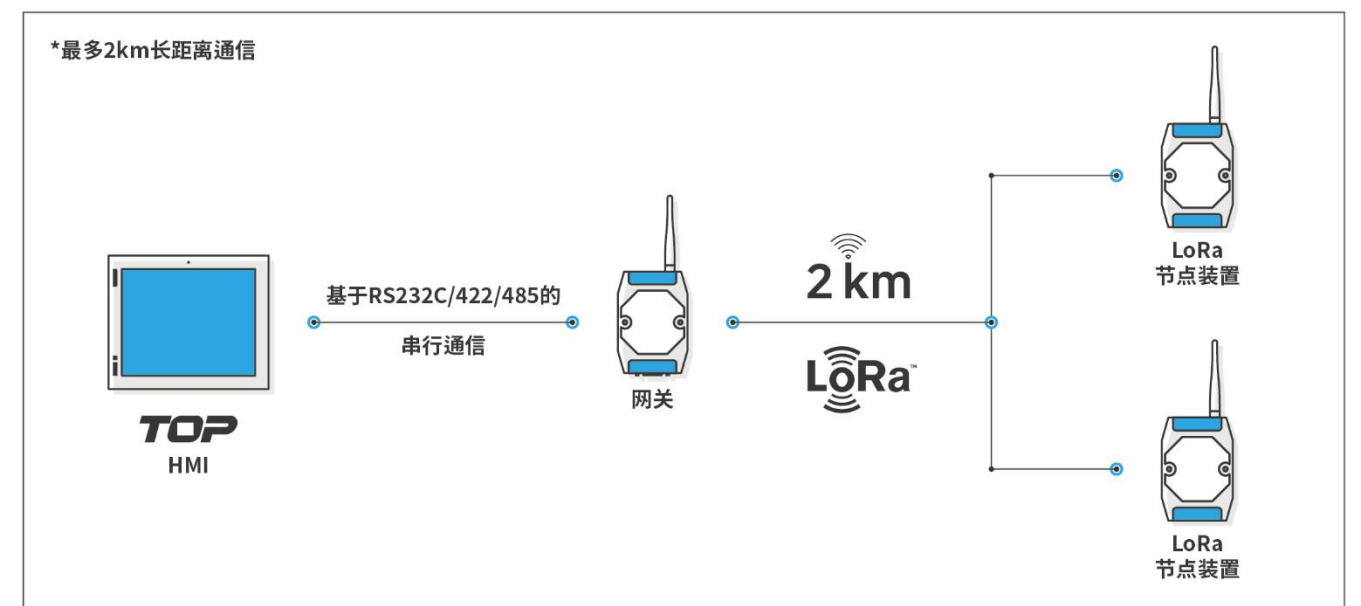
使用模式按钮LoRa网关与终端节点之间可以自动设置使用旋转开关可以变更频率与SF设置

LoRa使用方法

*详细的使用方法请参阅产品使用手册。

- 01 用USB电缆从[MX On LoRa 设置工具]下载LoRa网关与终端节点的设置内容
 - 02 使用串行通信(RS-232C/422/485)连接TOP与LoRa网关
 - 03 在TOP Design Studio软件的串行端口添加LoRa网关, 在通讯设置页面按照LoRa终端阶段的数添加Device ID
- ! 在TOP上可监督与控制LoRa网关的数据 而且, LoRa网关使用LoRa通信可接收LoRa终端节点的数据, 或者向终端节点发送

LoRa连接图



LoRa SPECIFICATIONS

GATEWAY

	Functional	MIO-LPG00
Power	Input Voltage	24Vdc(20 ~ 28Vdc)
	Power Dissipation	3W
	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: 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	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)

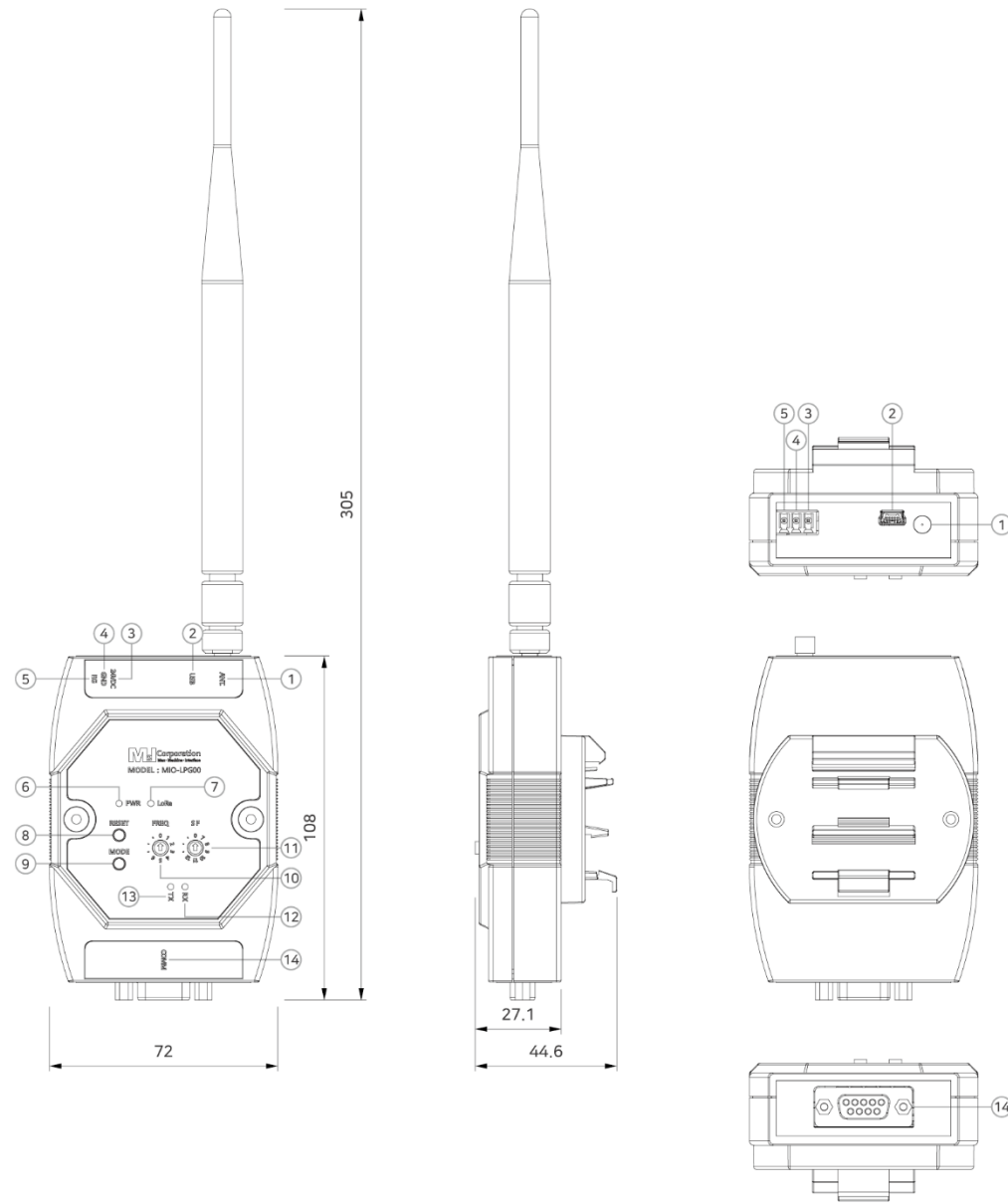
LoRa SPECIFICATIONS

ENDNODE

	Functional	MIO-LPE00	
Power	Input Voltage	24Vdc(20 ~ 28Vdc)	
	Power Dissipation	3W	
	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	
	Output Current in On State	Max. 4mA/Channel @24Vdc	
Digital Output	Connector	3.5mm TB	
	Type	2 Channel Sink	
	Output Current in On State	Max. 0.5A/Channel @24Vdc	
Relay Output	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: 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	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

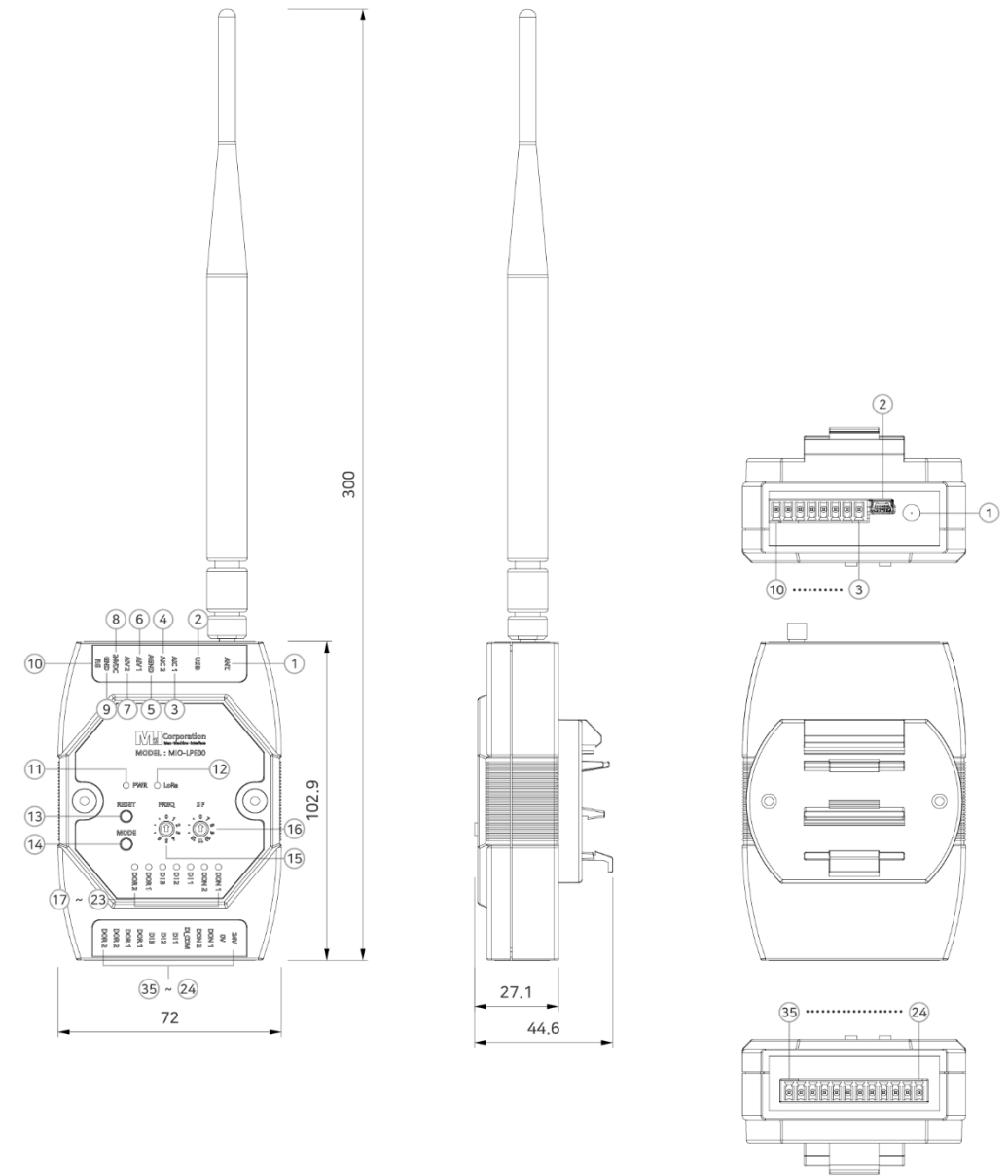
MIO-LPG00 Gateway



- ① LoRa Antena Joint
- ② USB Setting Connector
- ③ System Power Input(DC24V)
- ④ System Power GND
- ⑤ F.G
- ⑥ System Power Indicator
- ⑦ LoRa Communication Indicator
- ⑧ System RESET Switch
- ⑨ MODE Switch
- ⑩ Frequency Channel Switch [0 ~ 6]
- ⑪ SF Setting Switch [0], [7 ~ 12]
- ⑫ Communication Receive Indicator COMM
- ⑬ Communication Transmit Indicator COMM
- ⑭ Serial Communication Connector

DRAWING

MIO-LPE00 EndNode



- ① LoRa Antena Joint
- ② USB Setting Connector
- ③ Analog Current Input Terminal for Channel 1
- ④ Analog Current Input Terminal for Channel 2
- ⑤ AIC 1, 2/AIV 1, 2 Common Terminal
* Field Power(0V) Connection Terminal
** Use when it is connected as Source Type
- ⑥ Analog Voltage Input Terminal for Channel 1
- ⑦ Analog Voltage Input Terminal for Channel 2
- ⑧ System Power Input(DC24V)
- ⑨ System Power GND
- ⑩ F.G
- ⑪ System Power Indicator
- ⑫ LoRa Communication Indicator
- ⑬ System RESET Switch
- ⑭ MODE Switch
- ⑮ Frequency Channel Switch [0 ~ 6]
- ⑯ SF Setting Switch [0], [7 ~ 12]
- ⑰ ~ ⑳ Operation Status LED
- ㉑ ~ ㉓ I/O Terminal

MGW SERIES

连接工业设备的物联网网关



FEATURES

提供通信协议转换器功能 (提供多个通讯驱动器)

提供跟HMI相同的专用通讯协议库
(基于地址的PLC)

提供标准导轨与vesa孔

用标准导轨 (DIN Rail) 在任何场所容易安装
用标准VESA挂架 (* 选项) 跟显示器简单结合

使用TOP Design Studio软件可执行

使用M2I的HMI和SCADA的用户
使用同软件容易执行

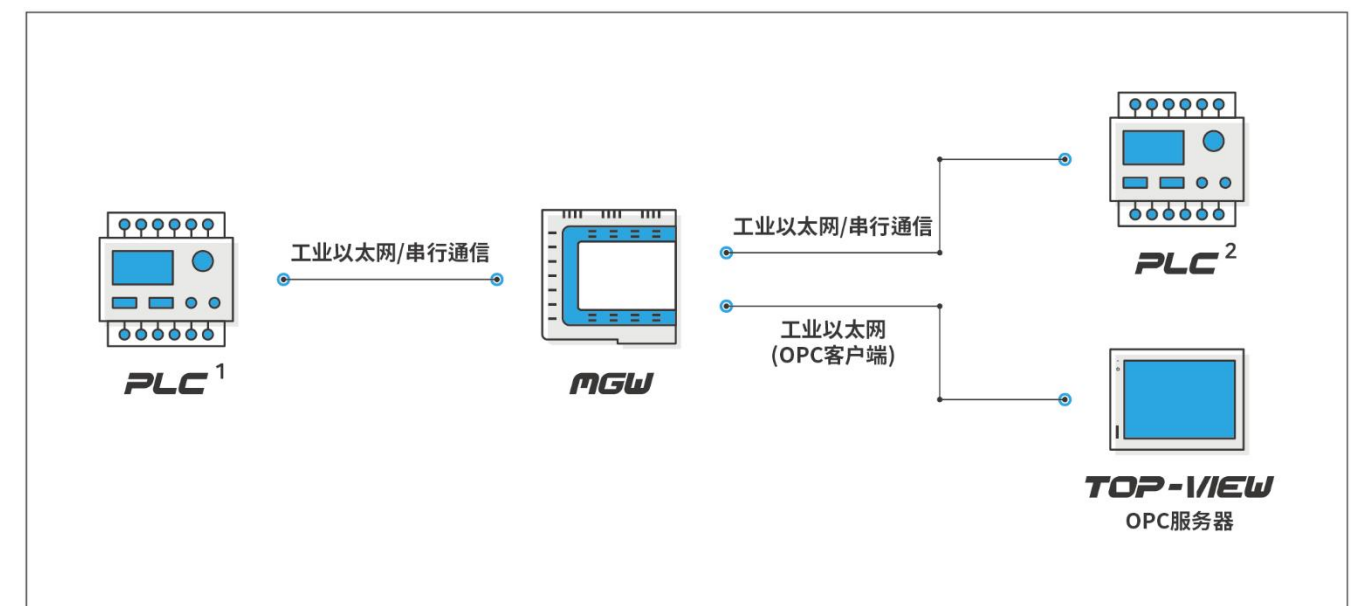
提供以太网和串行端口2个

支持不同IP的异构网络接口
提供COM1/2 DSUB 9针(RS-232C, RS-422/485)

HDMI输出

与各种显示器容易连接
* M2I触摸显示器即将上市

MGW连接图

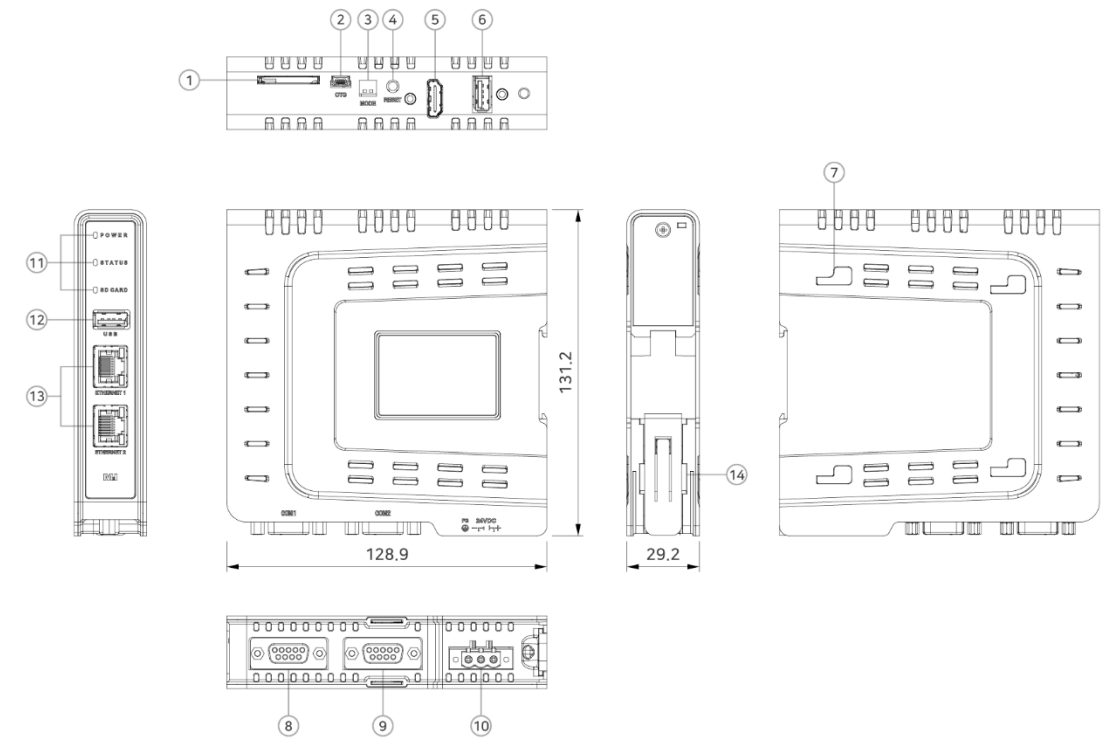


MGW SPECIFICATIONS

Functional	MGW-BH1000D
Serial COM1	RS-232C, RS-422/485 Asynchronous +5Vdc PWR 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
Serial COM2	RS-232C, RS-422/485 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
Ethernet	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: RJ-45 x 2
USB Host	USB 2.0 Compatible, Output 5Vdc/0.5A Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Type A x 2
USB OTG	USB 2.0 Compatible, Output 5Vdc/0.5A, Max 3m Support: USB Storage, USB Barcode Scanner(Standard Keyboard Protocol) Connector: USB Mini-B x 1
SD Card	SD Card Slot x 1, SDHC(MAX 32GB)
HDMI Output	HDMI v1.4, HDMI Output, Max. Resolution: 1280x720 at 60Hz Connector: HDMI x 1
Printer	Roll Printer(EPSON protocol)
Screen Memory	128MB
Backup Memory	512KB: System buffer(10K Word), Including Alarm/Logging/Recipe
Backup Period	Permanent
Real Time Clock	Built in
Status LED	3 LEDs(Power, Operation, SD Card) Built in
Input Voltage	20~28Vdc
Power Consumption	10W
Voltage Sag	24Vdc, Within 10ms
Insulation Resistance	500Vdc, 10MΩ
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)
Electrostatic Discharge	Connective discharge from EN61000-4-2: ±4kV
Shock Endurance	10G X,Y,Z each direction(for 3 times)
Ground Connection	Class 3(100Ω or less)
Protection Classification	IP20
Certification	KC, CE, UL/cUL
External Dimension(mm)	128.9x131.2x29.2
Weight(kg)	0.23
Installation Method	Standard DIN Rail(35mm), VESA
Cooling System	Natural air circulation
Case Material	Plastic

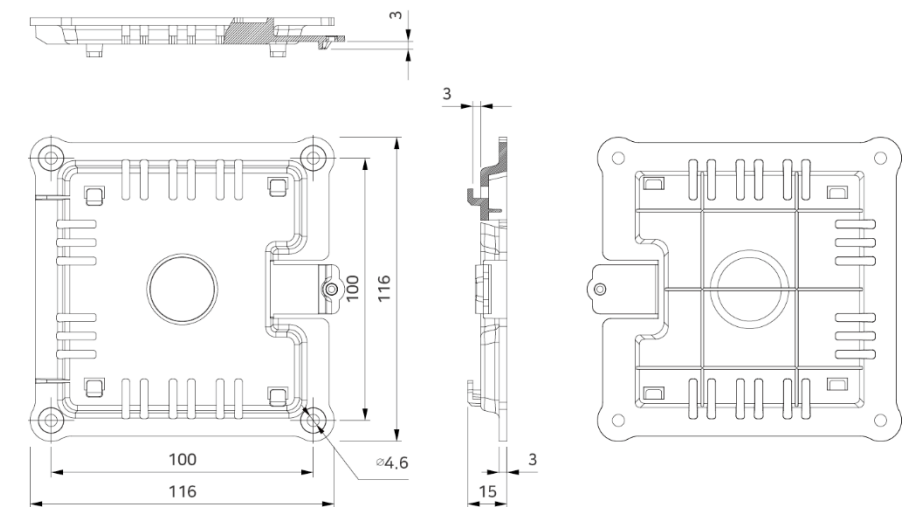
DRAWING

MGW-BH1000D



- ① SD Card Socket
- ④ Reset Switch
- ⑦ Vesa Bracket
- ⑩ Power Input
- ⑬ Ethernet Port
- ② USB OTG
- ⑤ HDMI
- ⑧ Serial COM1
- ⑪ Status LED
- ⑭ DIN Rail
- ③ Mode Switch
- ⑥ USB Host #1
- ⑨ Serial COM2
- ⑫ USB Host #2

VESA Braket(*Option)



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与客户对话 - 以客户为先，共创价值。
 持续成长 - 通过不断研发实现可靠性与生产力。
 迎接新变革 - 基于 AX·DX 的智能工厂整体解决方案平台企业。