

MD-1221P-L2

**Heavy Duty Industrial Purpose
Parking Detect Purpose Optimized
Dual Channel Loop Inductive Detector
Pack-Unit™**

FEATURES

General Features

- Industrial purpose dual channel inductive loop vehicle detector.
- Algorithm optimized for parking vehicle detect purpose.
- Heavy duty high reliable surge protection scheme.
- Single DC power operation
(10~30V single DC power input)
- 1U Shelf / Chassis direct mountable
- 8HP-3U or 6U EURO Card mountable
- Flame retardant case (난연성 외함 적용)

Special Features

- Line surge protection with TVSS
- 2KV isolated DAA
- ±15kV (IEC1000) ESD protected DTE interface
- DC Power input surge protection(TVSS)
- Hardware methode loop head status monitoring function
- Automatic environment factor compensation algorithm
- Easy configuration setting with dip switch
- Simple cascade type line connectivity

SPECIFICATIONS

Operating Mode

- Presence mode operation
 - : Realtime presence mode vehicle detect operation.

Detect Algorithm Feature

- Parking vehicle detect purpose optimized
- ① -



- Active environment compensation algorithm

System Interface

- RS485/2W/Half duplex/Multi-drop communication

Power

- Single DC Source : +10~30V DC
 - @12V DC : 120mA (typ.) consumption (per unit)
 - @24V DC : 65mA (typ.) consumption (per unit)
- Optional AC-adapter(power pack) for AC source available.

Physical Dimensions

- 122W x 46D x 36H (mm)

Weight

- 0.12 kg (typ.)

Environmental

- Temperature : -34°C to +74°C (Operating)
: -40°C to +80°C (Storage)
- Relative humidity : up to 95% (non-condensing)

Detect Core characteristics

- Sensitivity Setting : Typical / High
- Loop Inductance : 30~2000uH
- Vehicle speed : 0~160Km/hour
- Real Time Loop Head Status Monitoring : Short Monitoring
: Open Monitoring
- Line Isolation : 2.0KV

DESCRIPTION**PACK-UNIT™ Series**

PACK-UNIT™ 시리즈는 DCS, SCADA, ITS, TCS, CTC, General TMTC등 산업용 제어 시스템 운용 현장에서, BASE SOLUTION의 성능 및 신뢰성 향상을 위하여 다년간 노력하고 경험한 [MORU Industrial Systems]의 창의적 기술과 Know-How를 집약하여 된, 새로운 개념의 Industrial base solution Unit입니다.

특히 낙뢰, Surge, 열악한 온/습도 환경, AC 누설 전류 등으로 인한 수많은 Trouble, 그리고 기구적 거치 공간 및 거치 방법의 문제 등을 해결하기 위하여, 기존의 설계 관행 일체를 탈피하고, **다만 산업용 시스템의 현장상황에 근거한 Concept을 새로이 정립하여 설계한 [산업용 base solution Unit] 시리즈입니다.**

INTERFACE PIN CONFIG.**PORT1(cascade in) pin config. (8P-Modular)**

| | NAME | DESCRIPTION |
|---|-------|----------------|
| 1 | 485-P | RS485+ |
| 2 | 485-N | RS485- |
| 3 | GND | GROUND |
| 4 | GND | GROUND |
| 5 | GND | GROUND |
| 6 | HVCC | DC IN (10~30V) |
| 7 | HVCC | DC IN (10~30V) |
| 8 | HVCC | DC IN (10~30V) |

* PIN 1 : LOWER SIDE , PIN 8 : UPPER SIDE

PORT2(cascade out) pin config. (8P-Modular)

| | NAME | DESCRIPTION |
|---|-------|----------------|
| 1 | 485-P | RS485+ |
| 2 | 485-N | RS485- |
| 3 | GND | GROUND |
| 4 | GND | GROUND |
| 5 | GND | GROUND |
| 6 | HVCC | DC IN (10~30V) |
| 7 | HVCC | DC IN (10~30V) |
| 8 | HVCC | DC IN (10~30V) |

* PIN 1 : LOWER SIDE , PIN 8 : UPPER SIDE

* CASCADE IN/OUT PORTS ARE SWAPPABLE (FULLY EQUAL)

DC-IN Jack config. (2P DC JACK)

| | NAME | DESCRIPTION |
|---|---------------------|-------------|
| 1 | 10~30V (500mA max.) | OUTSIDE |
| 2 | GND | CENTER PIN |

PORT3 (loop head interface) pin config.**(6P-non screw Terminal Block)**

| | NAME | DESCRIPTION |
|---|----------|-------------------|
| 1 | HD_CH1 A | LOOP HEAD CH1 - A |
| 2 | HD_CH1 B | LOOP HEAD CH1 - B |
| 3 | HD_CH2 A | LOOP HEAD CH2 - A |
| 4 | HD_CH2 B | LOOP HEAD CH2 - B |
| 5 | N.C. | - |
| 6 | FGND | FRAME GROUND |

* PIN 1 : UPPER SIDE , PIN 6 : LOWER SIDE

* LOOP HEAD CONNECTION PIN [A - B] CAN BE SWAPPABLE
(NO POLARITY)

DIP Switch config. (8Pt.(upper)+8Pt.(lower))

| | NAME | DESCRIPTION |
|---|----------|--------------------------------|
| 1 | ID4(MSB) | LOCAL ID 00000B ~ 11111B |
| 2 | ID3 | MAX 32 LOCAL ID |
| 3 | ID2 | (ON:1 , OFF:0) |
| 4 | ID1 | |
| 5 | ID0(LSB) | |
| 6 | DEBUG | OFF : NORMAL , ON : DEBUG MODE |
| 7 | SENS | OFF: TYPICAL , ON : HIGH |
| 8 | RESET | OFF: NORMAL , ON : RESET |

* PIN 1 : LEFT SIDE , PIN 8 : RIGHT SIDE

LED display function (4EA ; dual color LED)

| | NAME | DESCRIPTION |
|---|----------|------------------------|
| 1 | PWR | R HVCC INPUT STATUS |
| | | G INTERNAL +5V STATUS |
| 2 | CH1 STAT | R CH1 VEHICLE STATUS |
| | | G CH1 LOOP HEAD STATUS |
| 3 | CH2 STAT | R CH2 VEHICLE STATUS |
| | | G CH2 LOOP HEAD STATUS |
| 4 | COMM | R RXD STATUS |
| | | G TXD STATUS |

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* 성능 향상을 위하여, 예고 없이 제품 사양이 변경될 수 있습니다.