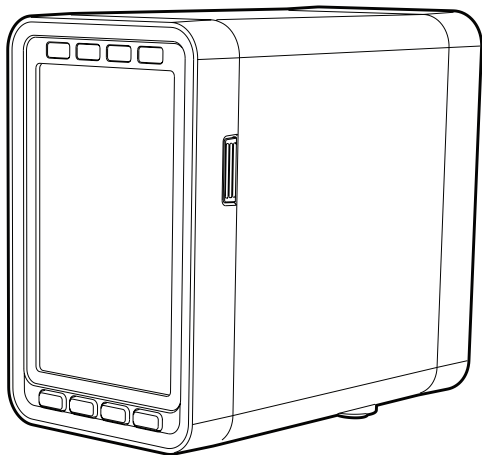


QUICK REFERENCE GUIDE



MIDAS-M MULTI GAS TRANSMITTER

Fixed Single Point Extractive
Multi Gas Transmitter

Introduction

The **Midas-M®** is a Fixed Extractive Single Point with 4-in-1 Multi Gas Detector that draws a sample locally or from a remote point to a sensor cartridge that is located inside the detector's chassis. A wide range of toxic, flammable and oxygen gas sensor cartridges are available that enable detection of gases used or generated in the Semiconductor and other manufacturing industries.

NOTE: Midas-M is shipped from the factory with the security function disabled. We strongly recommend enabling this function for safe use of the detector. To enable it, select **Set up > Security** and type an 8 character password.

Safety



CAUTION

Failure to observe the following precautions can cause injury to persons or damage to property:

- To minimize the risk of electrostatic charging, provide a suitable ground connection, and install the equipment in such a way that no accidental discharges occur.
- When Midas-M reaches the end of its life, it should be disposed of by local regulations.
- Do not use cleaning solvents or abrasives to clean the gas detector.
- Do not attempt to modify the product in any way from the manufacturer's design or specification. Warranty will be void and malfunction of the gas detector may result.
- Use only genuine spare parts and accessories with Midas-M. Malfunction may result if non-standard parts are used.
- Midas-M is suitable for ordinary locations only and must not be installed in hazardous locations.
- Installation must be by the recognized standards of the appropriate authority in the country concerned. For Europe, see EN60079-14, EN60079-29-2, and EN61241-14. For installations in North America, the National Electrical Code (NFPA 70) should be strictly observed. All the appropriate local and national regulations should be observed.

Sécurité



MISE EN GARDE

Le non-respect des précautions suivantes peut causer des blessures corporelles ou des dégâts matériels:

- Pour minimiser les risques de charge électrostatique, veillez à ce que la mise à la terre soit adéquate et installez l'équipement de manière à éviter toute décharge accidentelle.
- Lorsque le Midas-M arrive en fin de vie, il doit être éliminé conformément à la réglementation locale.
- N'utilisez pas de solvants de nettoyage ou d'abrasifs pour nettoyer le détecteur de gaz.
- Ne tentez en aucun cas de modifier le produit à partir de la conception ou des spécifications du fabricant. La garantie sera annulée et un dysfonctionnement du détecteur de gaz pourrait en résulter.
- Utilisez uniquement des pièces de rechange et des accessoires d'origine avec Midas-M. Un dysfonctionnement peut survenir si des pièces non standard sont utilisées.
- Midas-M ne convient qu'aux emplacements ordinaires et ne doit pas être installé dans des endroits dangereux.
- L'installation doit être conforme aux normes reconnues par l'autorité compétente du pays concerné. Pour l'Europe, voir EN60079-14, EN60079-29-2 et EN61241-14. Pour les installations en Amérique du Nord, le code national de l'électricité (NFPA 70) doit être strictement observé. Toutes les réglementations locales et nationales appropriées doivent être observées.

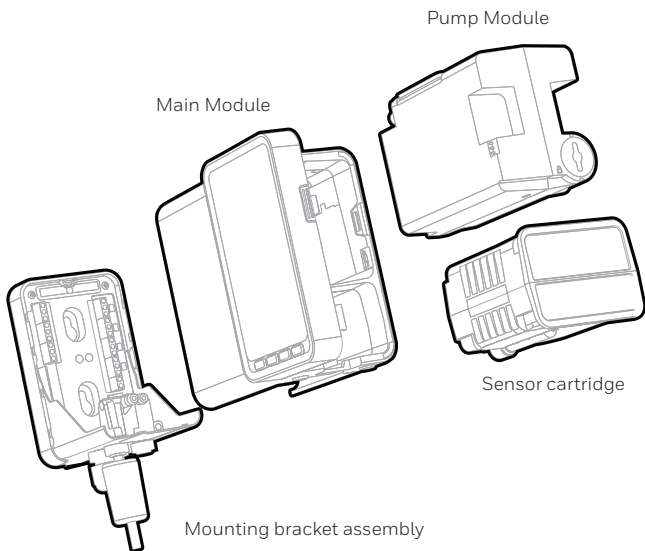
Approvals

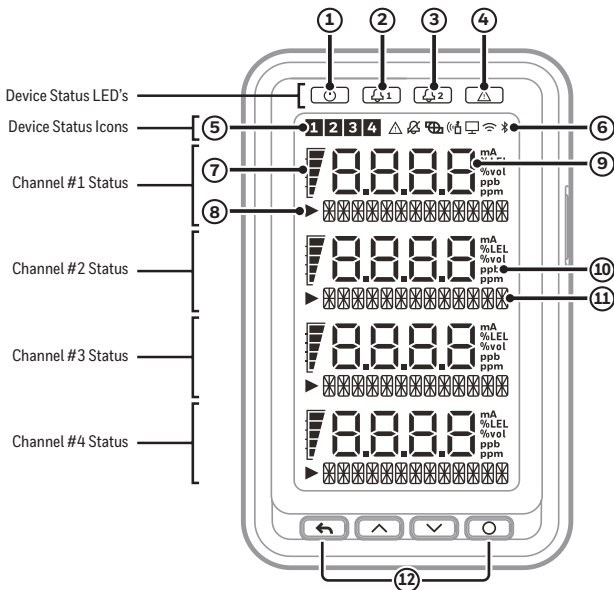
- | | |
|--------------|-----------------------|
| • Electrical | UL/CSA/IEC/EN 61010-1 |
| • EMC | EN 50270 |
| • ROHS | |

What's in the Box

- 1 Transmitter device
- 2 Tubes (Large box only)
- 1 Quick Reference Guide

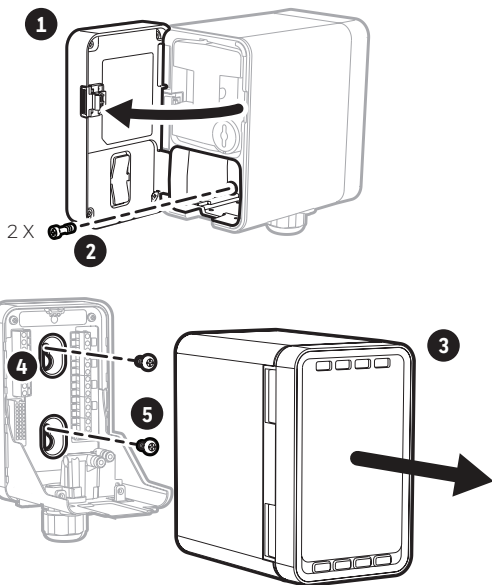
Overview





- | | |
|---|--|
| 1 Power LED | 7 Bar graph for gas concentration display |
| 2 Alarm 1 LED | 8 Entry indicator for menu operation |
| 3 Alarm 2 LED | 9 Gas concentration |
| 4 Fault LED | 10 Unit |
| 5 Selected channel number indicator for menu operation | 11 Gas name, menu, fault message |
| 6 Device status icons | 12 Buttons |
-
- | | |
|-----------------------|-----------------------------|
| Wireless Connected | Fault |
| Bluetooth Connected | Inhibit |
| Internal pump running | Gas Calibration in progress |
-
- | | |
|--|--------|
| | Cancel |
| | Accept |
| | Up |
| | Down |

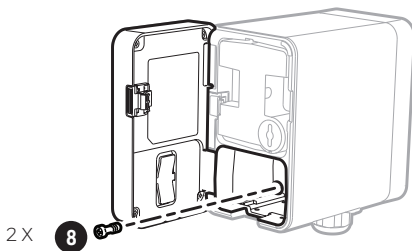
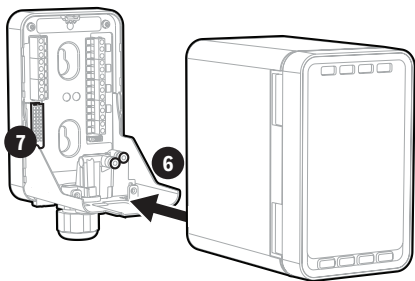
Mounting the Transmitter Device



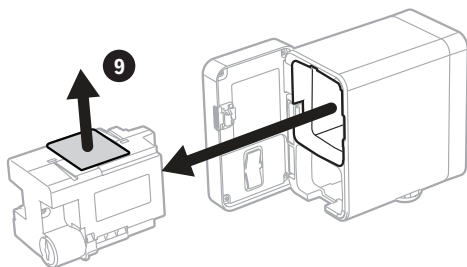
- 1** Open the door
- 2** Remove two screws
- 3** Carefully pull main chassis forward
- 4** Drill two holes 2.2 in
- 5**
 - Partially screw the fixings into the mounting surface.
 - Place the mounting bracket assembly over the screws, so they pass through the mounting holes and then slide down to locate in the slots.
 - Tighten the screws to secure the mounting bracket assembly.

Mounting the Transmitter Device

- 6 • Align the rounded corner at the lower of the main module with the similar rounded corner at the bottom of the mounting bracket assembly
 - Slide the main module backward while pushing the main module up after connecting with a mounting bracket so that the PCB and connector and tubes engage simultaneously.
- 7 • Ensure the PCB, connector, and tubes are fully engaged by firmly pushing the main chassis horizontally backward on the mounting bracket assembly. **DO NOT PUSH ON THE LCD AS THIS MAY DAMAGE IT.**
- 8 • Align the two fixing screws located at the bottom of the chassis with the screw threads on the mounting bracket assembly.
 - Tighten the screws to secure the chassis to the mounting bracket assembly.



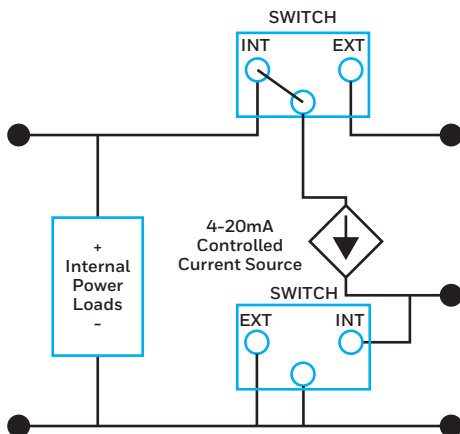
Mounting the Transmitter Device

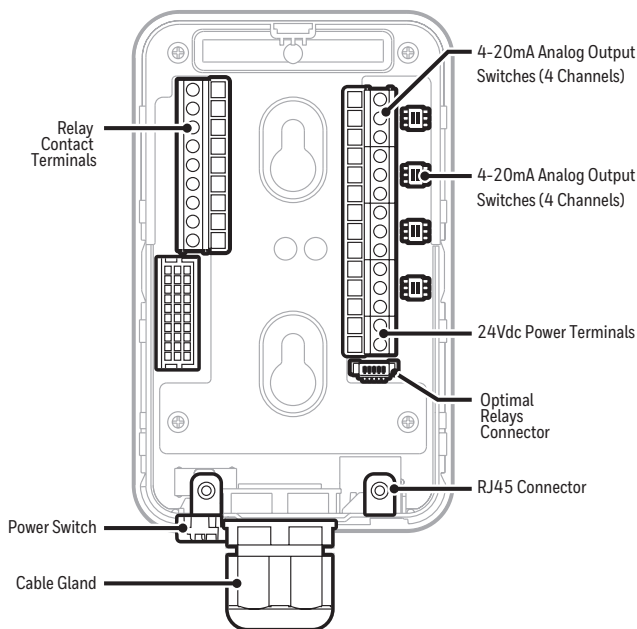


- 9** Remove the internal packing card securing the pump. Failure to remove this packing will result in damage to the Midas-M detector.

Electrical Installation

Access for the electrical wires to the terminal module is made via the PG16 cable gland located at the bottom of the mounting bracket assembly. The cable gland can be removed and replaced with a suitable conduit fitting if required. The wire routing of a typical installation is shown in the following diagram.





The terminals used are suitable for conductors of 24 to 14 AWG (0.5 to 1.8mm Dia.). We recommend using the 16 AWG (1.5 mm Dia.) conductors.

If Power over Ethernet (PoE) is used to power the device, then 24 VDC power must not also be connected to the device, (or conversely if 24 VDC is used to power the Midas-M, then electrical power via the Ethernet port must not be applied). Failure to observe this requirement may cause damage to the gas detection system and will not be covered by the standard warranty.

When connecting the wires, ensure that the power switch is in the off position.

Comissioning



WARNING

Before carrying out any work, ensure local and site procedures are followed. Ensure that the associated control panel is inhibited to prevent false alarms.

The following procedure should be followed carefully and only performed by suitably trained personnel.

1. Ensure the detector is wired correctly.
2. Ensure that the correct sensor cartridge is fitted. (If the cartridge has not been stored at room temperature, allow one hour for equilibration.)
3. Ensure the on/off switch on the bottom of the mounting bracket assembly is in the on position.
4. Apply power to the system.
5. After the startup routine, the detector will display the normal operating mode.
6. Perform a leak test to ensure all connections are secure.
7. 'Waiting...' will be displayed on booting time.
8. Allow the detector to stabilize until the 'Warm-up' message is no longer displayed after booting. The maximum warm-up time is dependent on sensor type. Refer to individual cartridge datasheets. Warm-up times are typically much faster.
9. Ensure the correct ID code is selected in Set-up -> alarm menu
10. If this is a first-time startup, the "Detect New Cartridge ~" message could be displayed. Press the 'O' button to clear the message.

Mise en service



ATTENTION

Avant de réaliser tout travail, s'assurer que les procédures locales et de chantier sont suivies. Assurez-vous que le panneau de commande associé est empêché de prévenir les fausses alarmes.

La procédure suivante doit être suivie attentivement et ne doit être effectuée que par personnel convenablement formé.

1. Assurez-vous que le détecteur est câblé correctement.
2. Assurez-vous que la bonne cartouche de capteur est installée. (Si la cartouche n'a pas été conservée à la température ambiante, laissez-la une heure d'équilibration.)

3. Assurez-vous que l'interrupteur marche / arrêt est situé au bas de la fixation. le support est en position de marche.
4. Mettez le système sous tension.
5. Après la routine de démarrage, le détecteur affichera le message normal mode de fonctionnement.
6. Effectuez un test d'étanchéité pour vous assurer que toutes les connexions sont sécurisées.
7. 'Waiting...' sera affiché au moment du démarrage.
8. Laissez le détecteur se stabiliser jusqu'à ce que le message «Préchauffage» n'est plus affiché après le démarrage. L'échauffement maximum le temps dépend du type de capteur. Voir la cartouche individuelle feuilles de données. Les temps de réchauffement sont généralement beaucoup plus rapides.
9. Assurez-vous que le bon code d'identification est sélectionné dans Configuration -> Alarme menu
10. S'il s'agit d'un premier démarrage, le message "Détecter nouvelle cartouche ~" le message pourrait être affiché. Appuyez sur le bouton 'O' pour effacer le message.

Specifications

Part Numbers:	MM-T-001: Transmitter (Main unit) of TCP/IP MM-T-002: Transmitter (Main unit) of 4-20mA output MM-C-001: Midas-M Sensor cartridge
Operating Temperature:	0°C~40°C
Physical:	
Size (unit with Sensor cartridge)	136 mm(H) x 83 mm(W) x 152 mm (D) (5.35 x 3.27 x 5.98 in)
Weight – Transmitter	1.3 kg (2.87 lb)
Weight – Sensor cartridge	0.17 ~ 0.22 kg (0.38 ~ 0.49 lb) dependent on sensor type
Optional Relay Dimensions:	
Size	137 mm (H) X 84 mm (W) X 41 mm (D) (5.39 X 3.31 X 1.61 in)

Weight	0.31 kg (0.68 lb)
Power Requirements:	
Operating Voltage	24 VDC Nominal -15 to +10% (20.4 to 26.4 VDC)
Operating Voltage with Power over Ethernet (PoE)	48 VDC PoE (IEEE 802.3af compliant)
Power Consumption:	
Transmitter unit (normal condition) ¹	Typ. 5W
Transmitter unit (full load condition) ²	< 11.45W
Transmitter with optional relay	< 12.9 W
Outputs:	
Visual	Alarm, power, fault LEDs, and LCD with all the gas readings and events. LEDs: Power(Green), Alarm 1 (Red), Alarm 2 (Red), Fault (Yellow)
Relays	Alarm1, Alarm2, Fault Relays (3) rated 1.0 A @ 30VDC or 1.0A @ 30Vdc or 0.5A @ 125Vac Max 10 uA @ 10 mV minimum, configurable as normally open or closed, latched or unlatched.
Analog	3 wire sink, 3 wire source, or 4 wire fully isolated; 0 to 21 mA. for each channel.
Digital Communications	Modbus / TCP Ethernet / Power over Ethernet (PoE)
¹ Normal condition: (1) No gas alarm (2) Without tube and pressure/vacuum ² Full load condition: (1) 4-ch gas alarms are on (2) Maximum tubing length and pressure/vacuum on the inlet/exhaust line	

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Manuals and other information about this product are available at:
www.honeywellanalytics.com/en/products/Midas-M