

- Recorder
- Flow
- Pressure
- Temp
- Analyzer
- Level

Datasheet Universal Controller GOT-MDA-U2



SENSTEX

Committed to process automation solution

<https://gotcorp.co.th>

Universal Controller GOT-MDA-U2

This product is a general-purpose controller for water quality, suitable for use with various water quality series digital sensors of our company. It is used to monitor water quality parameters including pH, ORP, conductivity, dissolved oxygen, turbidity, MLSS, inductive conductivity, free chlorine, ammonium, nitrate, COD and other water quality parameters. Through RS485 or current transmission output to the monitoring room for record keeping.

Applications

- pH/ORP sensor
- Conductivity sensor
- Inductive conductivity
- sensor Dissolved oxygen
- sensor Turbidity/MLSS
- sensor Chlorine sensor
- Ammonium sensor
- Nitrate sensor
- COD sensor



Features

- The isolated transmission output is adopted, which is less affected by interference
- Adopt isolated RS485 communication technology With high and low alarm output function.
- With sound and light alarm function, improve the adaptability of ambient light.

Universal controller

Principle

This universal controller is designed to work in conjunction with our range of digital water quality sensors, enabling continuous monitoring of water quality parameters such as pH, ORP, conductivity, dissolved oxygen, turbidity, sludge concentration, inductive conductivity, residual chlorine, ammonia nitrogen, nitrate nitrogen, COD, and more in solutions. The continuous monitoring data can be remotely transmitted and recorded through a transmission output connected to a recorder. Alternatively, it can be connected to an RS485 interface and communicate with a computer via the Modbus-RTU protocol, allowing the computer to monitor and record the instrument's data.

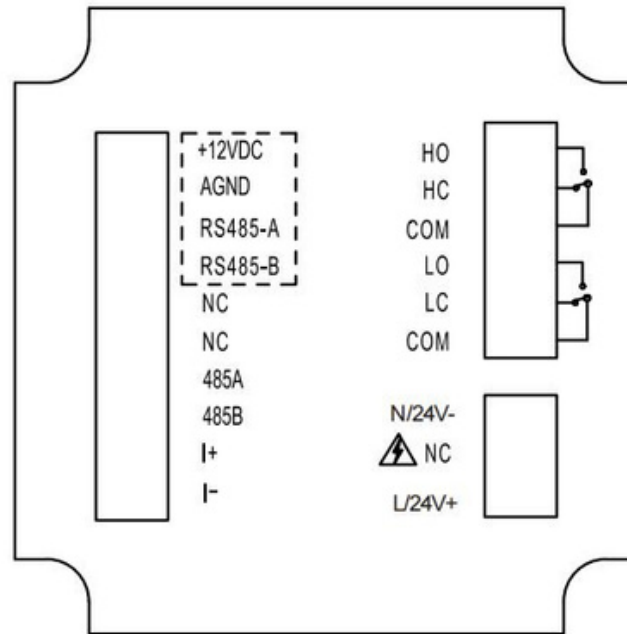
| Parameters | |
|----------------------------------|--|
| Display | 2.8-inch monochrome LCD screen, resolution 128*64 |
| Dimension | 100mm×100mm×150mm |
| Hole size | 92.5mm×92.5mm |
| Monitoring parameters | pH/ORP/Conductivity/Dissolved oxygen/Turbidity/MLSS/ Inductive conductivity/Free chlorine/NH ₄ -N/NO ₃ -N/COD |
| Display range | pH: (0~14)pH |
| | ORP: (-2000~2000)mV |
| | DO: (0~40)mg/L |
| | Saturation: (0~200)% |
| | Conductivity:(0~600)mS/cm |
| | Turbidity:(0~4000)NTU |
| | MLSS:(0~120000)mg/L |
| | Inductive conductivity: (0~2000)mS/cm |
| | Free chlorine: (0~5000)ug/L |
| | NH ₄ -N: (0~1000)mg/L |
| NO ₃ -N: (0~1000)mg/L | |
| COD: (0~1500)mg/L | |
| Current output | Note: The actual measurement range refers to the documentation of the connected sensor (4~20)mA load capacity 500Ω, output accuracy ±0.2%FS |
| RS485 output | Isolated, Modbus-RTU communication |
| Alarm | 2 channels, capacity AC250V/3A |
| Distribution output | 12V/125mA |
| Relative humidity | (10 ~ 85)% (no condensation) |
| Working temperature | (0 ~ 60)°C |
| Input | AC: (100~240)VAC |
| | DC: 24VDC(Optional) |
| Power consumption | ≤6W |
| Cable entries | M12*1.5 suitable gland *1 |
| | M16*1.5 suitable gland *2 |
| Operating temperature | (0 ~ 60)°C |

Storage conditions

Temperature:(-15 ~ 65)°C

Humidity(5 ~ 95)% (no
condensation) Height:<2000M

Wiring

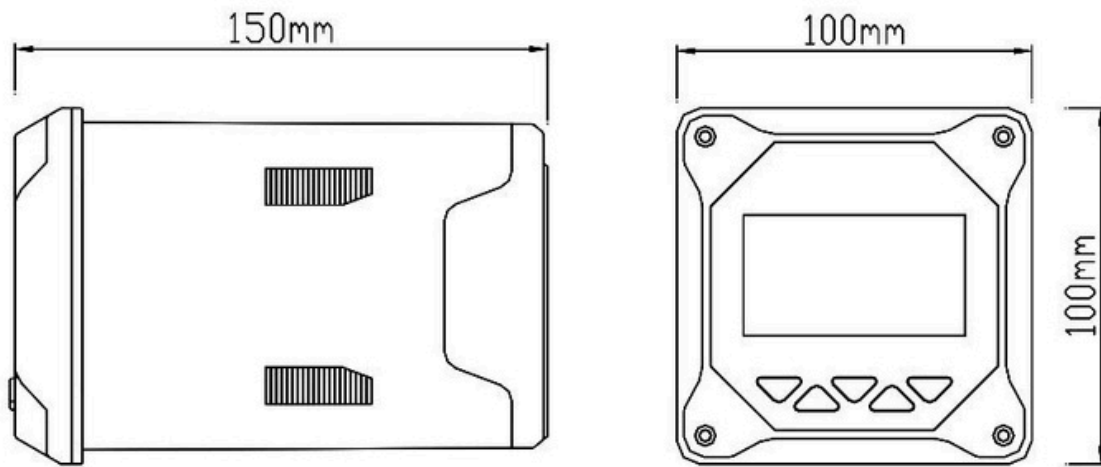


- +12VDC: 12V positive power supply
- AGND: 12V power supply negative pole
- RS485-A: sensor RS485 communication terminal A
- RS485-B: sensor RS485 communication terminal B
- NC: empty
- 485A: RS485 communication terminal A
- 485B: RS485 communication terminal B
- I+: (4~20)mA output terminal positive
- I-: (4~20)mA output terminal negative
- HO: High alarm normally open relay
- HC: High alarm normally closed relay

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Notice

- To prevent electric shock, please confirm the meter is not powered on before connecting the signal cable.
- To prevent fire, please use double insulated wire.
- Please do not place live products close to the signal terminals, which may cause malfunction.

Dimension

Unit: mm

Weight: 0.65kg.

Installation

■ Installation

4.1 Installation Conditions

Instructions for the installation location and method of this product are provided here. Please read this section carefully during installation.

Relevant Installation Precautions:

- The installation method of this product is panel-mounted.
- Install indoors, away from exposure to rain, wind, and direct sunlight.
- To prevent internal temperature rise of this product, install it in a well-ventilated area.
- During installation, avoid tilting the product left or right, and try to install it horizontally (with a backward tilt of $<30^\circ$ acceptable).

Avoid Installing in the Following Locations:

- Areas where the ambient temperature during operation exceeds 60°C .
- Areas where the ambient humidity during operation exceeds 85%RH.
- Vicinity of electromagnetic sources.
- Areas with strong mechanical vibrations.
- Areas prone to condensation due to significant temperature changes.
- Areas with heavy exposure to oil smoke, steam, moisture, dust, or corrosive gases.

4.2 Controller Installation

Cut a $92.5\text{mm} \times 92.5\text{mm}$ installation hole on the instrument cabinet or mounting panel, with a panel thickness ranging from 1.5mm to 13mm. Insert the instrument directly through the panel of the instrument cabinet, and then secure the butterfly latch accessory provided with the instrument from the rear of the instrument into the fixing slot, as shown in Figure 3.

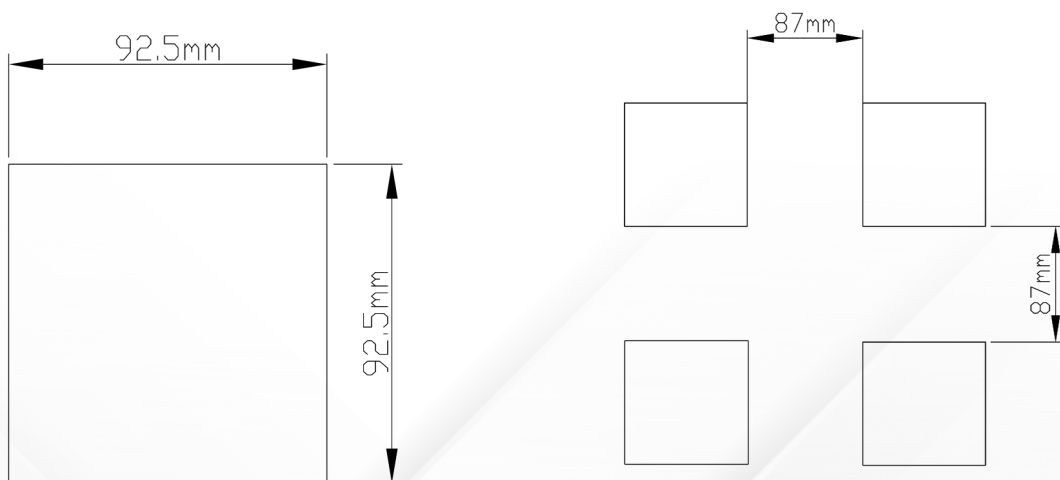


Fig. 2 Dimensions of disk-mounted openings and minimum distance between square holes in instrument cabinets

Insert the meter into the mounting hole then fasten the butterfly clasp as shown in Figure 3:

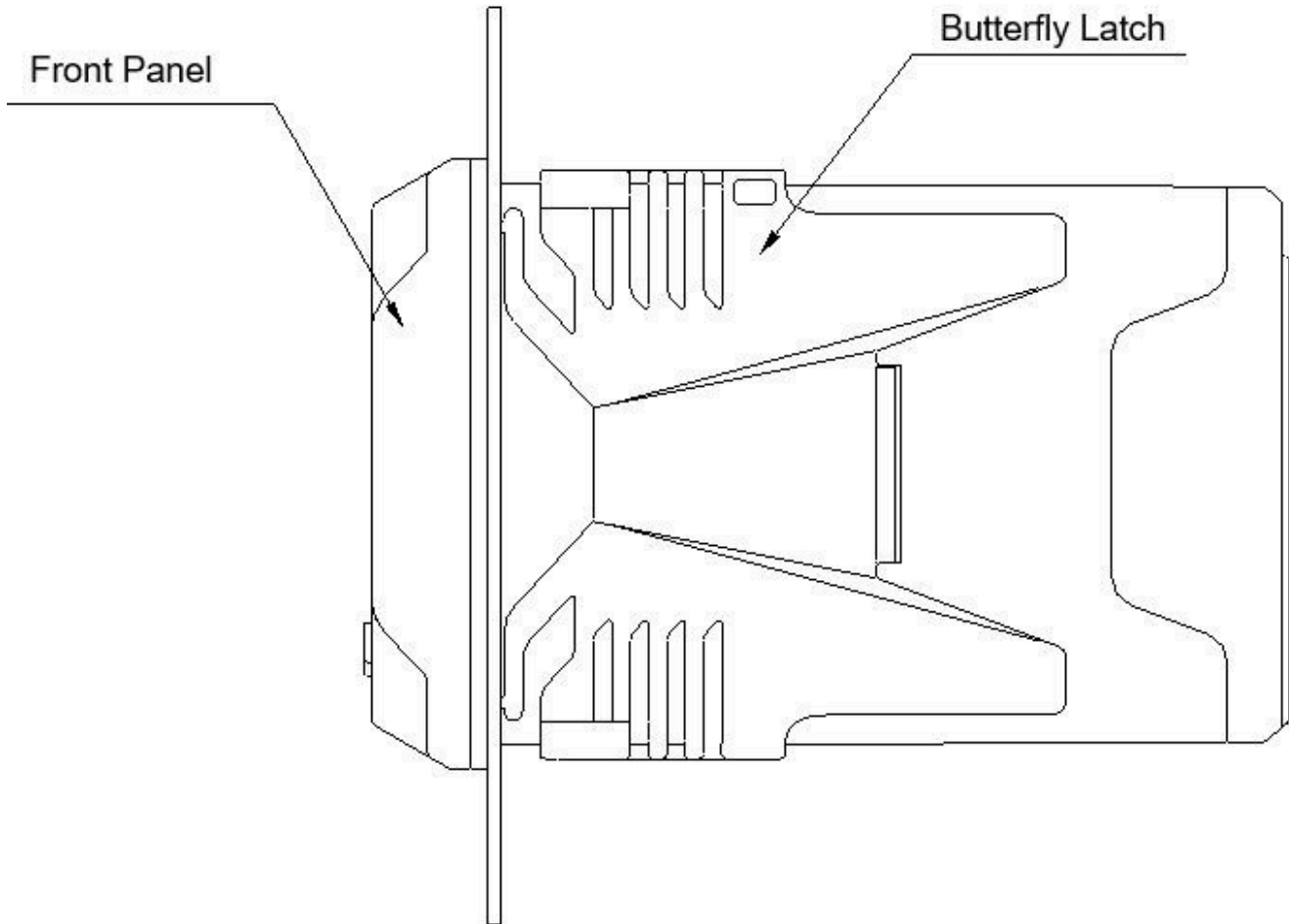


Fig. 3 Schematic diagram of controller disk mounting method

Ordering code

GOT-MDA-U2--A-B-4-1-4-E-P1

Description

| | | | | | | | |
|----------------------|---|---|---|---|---|---|----|
| GOT-MDA-U2 | - | - | - | - | - | - | - |
| Input | A | | | | | | |
| Output | B | | | | | | |
| Alarm Output | | 4 | | | | | |
| Electrical Interface | | | 1 | | | | |
| Level of Protection | | | | 4 | | | |
| | | | | 5 | | | |
| Power Supply | | | | | E | | |
| | | | | | C | | |
| Accessories | | | | | | | P1 |

RS485
 4-20mA+RS485
 2-channel SPDT
 M16×1.5 cable gland×2+M12×1.5 cable gland
 IP54
 IP65
 220VAC
 24VDC
 304SS Back Panel Mounting Bracket



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