

室内型一氧化碳传感器
Room CO Sensor

安装说明 / Installation Instructions

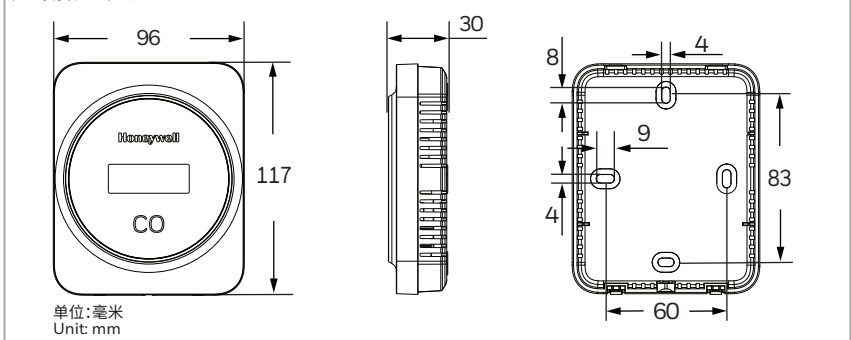
安全使用说明 / Safety Instructions

- 本节列出了用户使用本产品时，必须遵循的一些安全指导和提示。
This section lists the few security guidelines and tips that you must follow for the Honeywell sensors.
- 安装在合理的高度，且满足相关规范要求。不可安装在门、窗户、出风口或其它已知的空气干扰处附近。避免安装在有振动或温度快速变化的区域。
Install the product at a reasonable height and meet the relevant compliance requirements. Do not install the product nearby doors, windows, air vents or other known airflow interference. Avoid areas with vibration or rapid temperature changes.
- 通信线采用屏蔽线，最长允许长度为1200米。通信线与电缆不可置于同一管道中。在进行任何连接之前，请断开电源，以防止发生电气故障、触电或设备损坏。按照国家和地方规范进行所有连接。连接多个设备需注意电源的极性，以免造成设备损坏。
Communication lines need to be shielded type. The maximum allowed length is 1200 meters. Do not place communication lines and power cables in the same conduit. Disconnect the power supply before wiring to prevent electrical failure, shock, or equipment damage. Wiring shall be in accordance with national and local codes. Wiring multiple devices requires attention to the polarity of the power supply to avoid damage to the device.
- 禁止在爆炸性或危险环境中使用本设备。禁止在可燃或易燃气体环境中使用本设备。禁止将本设备作为安全紧急停止装置使用，不当的使用可能会导致人身伤害和损失。
Do not use the device in explosive or hazardous environments. Do not use it in flammable or combustible atmospheres. It is not permitted to use the device as a safety emergency stop device. Improper use may cause physical injury and damage.
- 确保设备处于隔离的内部网络中。
Ensure that the device is on an isolated internal network.
- 确保设备的物理安全。只有授权人员才能访问设备和总线。确保设备安装、运行、维护管理的安全性。安装过程中注意防静电。
Ensure the physical security of the device. Only authorized personnel can access the device and bus. Ensure the security of device installation, operation and maintenance management. Attention to anti-static during installation.
- 请勿打开设备或损坏设备外观，导致设备内部暴露。确保设备远离挥发性化学物质，强酸、强碱、清洁剂等会永久性损坏电路板。
Do not open the device or damage the appearance, resulting in internal exposure. Keep the device away from volatile chemicals. Strong acids, strong alkalis, detergents and so on will permanently damage the circuit board.
- 以下气体会干扰设备传感器并影响测量精度。
The following gases interfere with device sensors and accuracy.

干扰气体 / Interfering Gas	实验浓度 / Concentration (ppm)	等效读数 / Equivalent Reading
一氧化碳 / Carbon Monoxide	100	100
氢气 / Hydrogen	500	200
丙烷 / Propane	5000	0
异丁烷 / Isobutane	2500	0
二氧化碳 / Carbon Dioxide	5000	0
二氧化硫 / Sulfur Dioxide	25	0
硫化氢 / Hydrogen Sulfide	10	0
一氧化氮 / Nitric Oxide	30	0
二氧化氮 / Nitrogen Dioxide	30	<30
氨气 / Ammonia	100	0
醋酸乙基 / Ethyl Acetic Acid	200	0
庚烷 / Heptane	500	0
乙醇 / Ethanol	2000	<30 (暴露时间为30分钟/30 mins Exposure)
环乙硅氧烷 / Cyclohexisiloxane	10	0 (暴露时间为40分钟/40 mins Exposure)

注意：上述是霍尼韦尔推荐的操作及安全管理，但不局限于此。如果您发现任何安全漏洞，请报告 security@honeywell.com / Note: The above is the operation and safety management, recommended by Honeywell, but it is not limited to this. If you find any security vulnerabilities, please report to security@honeywell.com.

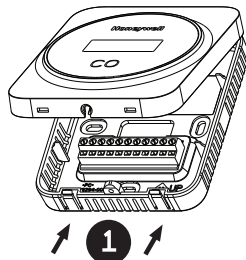
产品安装 / Product Installation



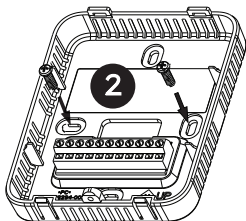
单位：毫米
Unit: mm

1 拆分产品上下壳。
Disassemble the top and bottom housings.

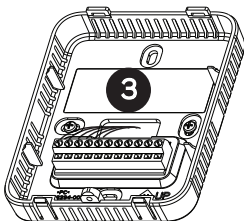
⚠ 安装前请务必切断电源。
Be sure to power off before installation.



2 选择安装位置，用螺丝将产品下壳固定。
Fix the bottom housing to installation position by screws.

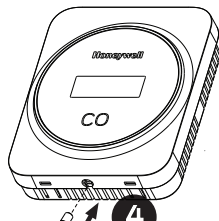


3 连接电线到相应的端子接口上。
Wire to terminals.



注意：最大安装扭矩为1Nm / Note: The maximal installation torque is 1Nm.

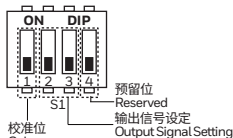
4 将产品上壳与下壳卡合好。
Assemble the top and bottom housings.



注意：底部螺丝为可选件，用户可根据实际需求安装；如安装，建议扭矩为0.2Nm / Note: Bottom screws are optional, users can install according to actual needs; If installed, 0.2Nm torque is recommended.

基本款拨码开关说明 / CO DIP Switch Instructions

- 型号 / SKU: HSCM-R100U, HSCM-R100UL, HSCM-R400U, HSCM-R400UL.
- 拨码数量 / Number of Switches: 4
- 拨码开关状态 / DIP Switch Setting



- 校准位仅供工厂生产时使用。产品出厂默认校准位关闭状态。
Cal is for factory production only. OFF is factory defaulted.
- 用户使用产品时，校准位保持关闭状态。
Keep Cal in OFF state when users use the product.
- 正确校准位拨码位置图例。
Correct Cal position.

输出信号设定 / Output Signal Setting

设定输出信号 (拨码第S1-2至S1-3位) / Set Output Signal (Switch S1-2 and S1-3)			
拨码位置图例 / DIP Switches			
输出信号 / Output Signal	4 ~ 20 mA (出厂默认 / Defaulted)	0 ~ 10 V	2 ~ 10 V

通讯款拨码开关说明 / CO RS485 DIP Switch Instructions

• 型号 / SKU: HSCM-R100M, HSCM-R100ML, HSCM-R400M, HSCM-R400ML.

• 拨码位数量 / Number of Switches: 12

• 拨码开关状态 / DIP Switch Setting

校准位
Cal

波特率设置
Baud Rate Setting

地址位设置
Address Setting

预留位
Reserved

• 校准位仅供工厂生产时使用。产品出厂默认校准位关闭状态。
Cal is for factory production only. OFF is factory defaulted.

• 用户使用时,校准位保持关闭状态。
Keep Cal in OFF state when users use the product.

• 正确校准位拨码位置图例。
Correct Cal position.

RS485终端电阻
RS485 Terminating Resistor

RS485终端电阻位拨码位置图例。
RS485 Terminating Resistor positions.

• 产品出厂默认RS485终端电阻位关闭状态。
OFF is defaulted for RS485 Terminating Resistor.

• RS485终端电阻位拨码位置图例。
RS485 Terminating Resistor positions.

• Modbus通讯波特率设置 / Modbus Baud Rate Setting

设定波特率 (拨码第S1-2至S1-3位) / Set Baud Rate (Switch S1-2 and S1-3)

拨码位置图例 / DIP Switches

波特率 / Baud Rate

(出厂默认 / Defaulted)

4800

19200

38400

• Modbus地址位设置 / Modbus Address Setting

左图示例的通讯地址 / Communication address of example at the left

16 + 32 = 48

• 端子S2-4, S3-1上拨有效 / Switch S2-4 and S3-1 are up valid.

• 端子S2-4, S3-1分别代表地址位16, 32 / Switch S2-4 and S3-1 represent address bits 16 and 32.

• 通讯地址是端子S2-4, S3-1的地址累加之和 / The communication address is the sum of Switch S2-4 and S3-1 address bits.

报警款拨码开关说明 / CO Alarm DIP Switch Instructions

• 型号 / SKU: HSCM-R100US, HSCM-R100ULS, HSCM-R400US, HSCM-R400ULS.

• 拨码位数量 / Number of Switches: 8

• 拨码开关状态 / DIP Switch Setting

校准位
Cal

报警浓度值设定
Alarm Value Setting

预留位
Reserved

• 校准位仅供工厂生产时使用。产品出厂默认校准位关闭状态。
Cal is for factory production only. OFF is factory defaulted.

• 用户使用时,校准位保持关闭状态。
Keep Cal in OFF state when users use the product.

• 正确校准位拨码位置图例。
Correct Cal position.

输出信号设定
Output Signal Setting

预留位
Reserved

• 校准位仅供工厂生产时使用。产品出厂默认校准位关闭状态。
Cal is for factory production only. OFF is factory defaulted.

• 用户使用时,校准位保持关闭状态。
Keep Cal in OFF state when users use the product.

• 正确校准位拨码位置图例。
Correct Cal position.

• 输出信号设定 / Output Signal Setting

设定输出信号 (拨码第S1-2至S1-3位) / Set Output Signal (Switch S1-2 and S1-3)

拨码位置图例 / DIP Switches

输出信号 / Output Signal

(出厂默认 / Defaulted)

0 ~ 10 V

2 ~ 10 V

• 报警浓度值设定 / Alarm Value Setting

设定报警浓度值 (拨码第S1-4至S2-1位) / Set Alarm Value (Switch S1-4 and S2-1)

拨码位置图例 / DIP Switches

0-100ppm
量程型号

(出厂默认 / Defaulted)

25 ppm

60 ppm

80 ppm

0-400ppm
量程型号

(出厂默认 / Defaulted)

25 ppm

60 ppm

150 ppm

Modbus通讯协议说明 / Modbus Protocol

• 寄存器地址信息表 / Register Address Information

寄存器地址 ID	参数描述 Description	寄存器数量 Quantity	数据类型 Data Type	读写 Writable (R, W)	详细说明 Detailed Information
0x01	气体浓度 Gas Concentration	1	Short	R	
0x02	预留 Reserved	1	Short	R	当前气体浓度, 单位: PPM Current gas concentration. Unit: PPM
0x03	预留 Reserved	1	Short	R	
0x04	预留 Reserved	1	Short	R	
0x05	预留 Reserved	1	Short	R	
0x06	预留 Reserved	1	Short	R	
0x07	预留 Reserved	1	Short	R	
0x08	总运行时长 Total Running Time	1	Short	R	单位: 天 Unit: Day
0x09	报错代码 Error Code	1	Short	R	0-正常; 2-系统报错 0-Normal; 2-System Error

• 功能代码信息表 / Function Code Information

功能码 Code	功能名称 Function	报错代码 Error Code	异常代码 Exception Code
0x03	读取保持寄存器 Read holding register	0x83	01 or 02 or 03
0x06	写入单个寄存器 Write Single Register	0x86	01 or 02 or 03
0x10	写入多个寄存器 Write Multiple Registers	0x90	01 or 02 or 03

LCD LED状态说明 / LCD LED Status

适配器型号 SKUs Applied	LCD显示状态 LCD Display Status	LED显示状态 LED Display Status	传感器状态 Sensor Status
HSCM-R100U HSCM-R400U	/ XXXppm	常亮 Always ON 不亮 Always OFF	启动中 Starting 正常工作 Working Normally
HSCM-R100US HSCM-R400US	CAL CAL Slow Flash - 1 sec ON, 1 sec OFF	超慢闪 - 2秒亮, 2秒灭 Ultralow Flash - 2 sec ON, 2 sec OFF	等待校准 Waiting for Calibration
HSCM-R100M HSCM-R400M	CAL CAL Slow Flash - 1 sec ON, 1 sec OFF	慢闪 - 1秒亮, 1秒灭 Slow Flash - 1 sec ON, 1 sec OFF	校准中 Calibrating
	CAL超快闪 - 0.25秒亮, 0.25秒灭 CAL Ultrafast Flash - 0.25 sec ON, 0.25 sec OFF	超快闪 - 0.25秒亮, 0.25秒灭 Ultrafast Flash - 0.25 sec ON, 0.25 sec OFF	清除用户校准参数中 Clear User Calibration Parameters
	Err2	快闪 - 0.5秒亮, 0.5秒灭 Fast Flash - 0.5 sec ON, 0.5 sec OFF	系统错误 System Error

声明 / Declaration

• 所有图例仅供参考, 请以实物为准。
All illustrations are for reference only. Please refer to the real products.

• 保修期限请参考实际合同。
Please refer to sales contracts for warranty period information.

• 说明书如有变动, 恕不另行通知。
Subject to change without notice.

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• 输出信号设定 / Output Signal Setting

设定输出信号 (拨码第S1-2至S1-3位) / Set Output Signal (Switch S1-2 and S1-3)

拨码位置图例 / DIP Switches

输出信号 / Output Signal

(出厂默认 / Defaulted)

0 ~ 10 V

2 ~ 10 V

• 报警浓度值设定 / Alarm Value Setting

设定报警浓度值 (拨码第S1-4至S2-1位) / Set Alarm Value (Switch S1-4 and S2-1)

拨码位置图例 / DIP Switches

0-100ppm
量程型号

(出厂默认 / Defaulted)

25 ppm

60 ppm

80 ppm

0-400ppm
量程型号

(出厂默认 / Defaulted)

25 ppm

60 ppm

150 ppm

底壳接线说明 / Bottom Housing Wiring

• 允许接线线径 / Acceptable Wire Diameter: 15 ~ 22 AWG

• 端子螺丝允许最大扭矩 / Acceptable Maximal Torque of Screw: 1 Nm

• 端子接线说明 / Terminal Wiring Instructions

CO 1 信号输出
Signal Output

GND 2 电源 (-)
Power (-)

V+ 3 24V DC/AC

NO 4 常开
Normally Open

COM 5 公共
Common

NC 6 常闭
Normally Close

GND 7 电源 (-)
Power (-)

V+ 8 24V DC/AC

485- 9 485 (-)

485+ 10 485 (+)

SHD 11 屏蔽端
Shield

CO 1 信号输出
Signal Output

GND 2 电源 (-)
Power (-)

V+ 3 24V DC/AC

HSCM - R100U
HSCM - R100UL
HSCM - R400U
HSCM - R400UL

HSCM - R100M
HSCM - R100ML
HSCM - R400M
HSCM - R400ML

• 导线允许的最长长度说明 / Maximum Allowed length of Wires

线型 Wire Type	AWG15	AWG16	AWG17	AWG18	AWG20	AWG22
允许长度 Maximum Length	300米/m	300米/m	150米/m	150米/m	150米/m	50米/m

• 其它技术数据 / Other Technical Data

• 电源 / Power Supply: SELV (Safety Extra-Low Voltage).

• 工作电压 / Operating Voltage: AC 24V ±20% or DC 19.2 ~ 35V or AC / DC 24V Class 2 (US).

• 频率 / Frequency: 50/60 Hz at AC 24V.

	有害物质 / Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑料外壳 Plastics Housing	0	0	0	0	0	0
螺丝 Screw	0	0	0	0	0	0
电路板组件 PWBA	X	0	0	0	0	0

本表格依据 SJ/T 11364 的规定编制。
This table is prepared in accordance with the provisions of SJ/T 11364.

0: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
Indicates that the hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。
Indicates that the hazardous substance contained in at least one of the homogeneous materials for this part is above the limit requirement of GB/T 26572.

未列入表内的其它部件, 皆不含任何超出限量要求的限制使用物质。
All other components, not listed in the table, do not contain restricted substances above the threshold level.

WEEE 指令 2012/19/EC 废弃电气和电子设备指令
WEEE 2012/19/EC Waste Electrical and Electronic Equipment Directive

在产品寿命结束时, 在相应的回收中心处理包装和产品。请勿使用通常的生活垃圾处理方式处理该产品。请勿焚烧该产品。
This product and package should be disposed of, at the end of its useful life, at the appropriate recycling center. Do not dispose of this product with common domestic waste disposal methods. Do not burn this product.

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