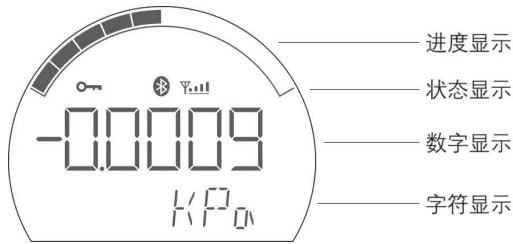


变送器操作手册

■ 操作界面



进度显示	表示当前菜单项位置
状态显示	锁屏指示: 锁屏状态无法操作菜单, 长按 M 键解锁 蓝牙指示: App 连接仪表后, 该图标闪烁 信号指示: 只有开启 LoRa 才会出现, 满格四格
数字显示	显示数字或简单枚举值, 修改时会闪烁显示
字符显示	显示字符串, 如菜单名, 枚举值, 修改时会闪烁显示

■ 按键说明

按键	功能	详细说明
M	切换菜单或确认修改	短按切换菜单, 长按返回上一级菜单 锁屏状态长按解锁, 主屏长按进入清零菜单
S	向上切换数值	修改时, 数值闪烁 短按 M 键确认修改, 长按 M 键取消修改
Z	向下切换数值或向右移位	修改时, 数值闪烁 短按 M 键确认修改, 长按 M 键取消修改

■ 错误码

当系统运行出错, 或用户操作出错, 界面会显示错误码, 并滚动显示错误信息

错误码	说明
Err01 INNER E	INNER ERROR 内部通讯错误
Err02 IN CALI	IN CALIBRATION 处于校准模式, 可能未正常结束校准, 重新进行校准并完成或用电脑软件退出校准模式
Err03 NO PRES	NO PRESSURE CAL 压力未校准, 需要对压力进行线性化或温补

■ 普通菜单

序号	显示样例	说明
1.1	0.245 KPa	主界面 显示当前测量值及单位。可通过菜单[1.5]改变显示内容
1.2	----- UN KPa	主变量单位 Pa, Kpa, MPa, psi, bar, mbar, Torr, atm, inH2O, inHg, ftH2O, mmH2O, mmHg, mH2O, mHg, g/cm ³ , kg/cm ² , m, cm, mm, g/cm ³ , kg/m ³
1.3	- 100.00 LRV KPa	测量下限 对应 4mA
1.4	100.00 URV KPa	测量上限 对应 20mA
1.5	88.888 DEC 3	小数点位数 0~4
1.6	----- BSP PV	测量界面显示 PV-主变量, mA-电流, Eg-工程量, %-百分比
1.7	0.8 DAMP S	阻尼时间 0.0~4.0 秒
1.8	----- OUT LIN	输出函数 LIN-线性, SQR-开方, Eng-工程量
1.9	3.8 ALM Lo	报警电流 Hi-22.5mA, Lo-3.8mA
1.10	0.245 OFS KPa	零点偏移 等同于[主量调零] 如实际值 1.016, 偏移值 0.006, 显示值 =1.016-0.006=1.010
1.11	----- MOD NUL	更多菜单 NUL-无, ADV-高级菜单, TRM-微调菜单, DEV-设备数据菜单

■ 高级菜单

序号	显示样例	说明
2.1	Sn 24618FB	用户序列号 同时作为蓝牙名称
2.2	4.000 FIX mA	固定电流输出 输入值为 0 表示退出固定电流输出模式
2.3	1.000 DENSITY	密度 g/cm ³ 测容器高度时, 必须设置该参数
2.4	10.0 HEIGHT M	高度 米 测液体密度时, 必须准确设置该参数
2.5	10 FILTER	滤波个数 0~30 个数越多, 测量值越平稳, 但反应速度越慢
2.6	10 FRST Pa	快速反应门限 压力变化超过门限时, 不滤波, 立即显示
2.7	64 CUT KPa	小信号切除 实测值 ≤ 该切除值时, 显示为 0
2.8	12345 PWD	蓝牙组态密码 默认 12345 通过蓝牙修改参数时, 需先输入该密码

2.9	0.00 LRL KPa	传感器量程下限
2.10	1000.00 URL KPa	传感器量程上限

■ 微调菜单

序号	显示样例	说明
3.1	0.0 IS PV: 0 NO	主量调零 处于零压力稳定状态下, S、Z 键切换操作, M 键确认操作: NO-退出, YES-执行调零, CLR-清除调零; 快捷键: 测量界面解锁状态, 长按 M 键进入
3.2	- 100. IS LTR NO	下限校准 处于量程下限压力稳定状态下, 操作: NO-退出, YES-执行校准, CLR-清除校准; 快捷键: 测量界面解锁状态, 长按 Z 键进入
3.3	- 100. IS UTR NO	上限校准 处于量程上限压力稳定状态下操作: NO-退出, YES-执行校准, CLR-清除校准; 快捷键: 测量界面解锁状态, 长按 S 键进入
3.4	----- REC NO	数据恢复 变送器参数恢复到最后一次备份的数据 NO-退出, YES-执行

■ 设备数据菜单

序号	显示样例	说明
4.1	84.5 MAX-T °C	设备使用过程中, 经历的最高温度;
4.2	84.5 MIN-T °C	设备使用过程中, 经历的最低温度;
4.3	98.4 IS MAX KPa	设备使用过程中, 经历的最高压力;
4.4	- 18.745 MIN KPa	设备使用过程中, 经历的最低压力;
4.5	Time 8888S	设备累计运行时间, 单位: 分钟;
4.6	CFG-t 887	设备参数最后一次修改时间;
4.7	8 CFG CNT	设备参数累计修改次数;



蓝牙小程序



安卓 APP

电脑软件
手册电子版

Transmitter Operation Manual

Screen



Progress Bar	Indicate current menu item position
State Icon	<ul style="list-style-type: none"> Lock: Long press M key to unlock Bluetooth: Flash when App connected LoRa: Signal: Only appears when LoRa is enabled
Digits	Display digits, Flash when modified

Button

Key	Function	Description
M	Switch menu or confirm modification	Short press to switch menu, long press to return to the previous menu. Unlock screen by long press when screen is locked, long press on main screen to enter zeroing menu.
S	Increase value	Value blinks when being modified. Short press M key to confirm modification, long press M key to cancel modification.
Z	Decrease value or shift right	Value blinks when being modified. Short press M key to confirm modification, long press M key to cancel modification.

Error Code

When the system runs into an error, the screen will display the error code and error code string

Error Code	Description
Err01 INNER E	INNER ERROR Internal Communication Error
Err02 IN CALI	IN CALIBRATION Calibration may not have ended properly. Re-calibrate and complete, or exit calibration mode using computer software.
Err03 NO PRES	NO PRESSURE CAL Linearization or temperature compensation for pressure sensor is required

Normal Menu

No.	Example	Description
1.1	0.245 KPa	Home Screen Display the measurement value and unit. The display content can be changed through menu [1.5]
1.2	----- UN KPa	PV Unit Pa, Kpa, MPa, psi, bar, mbar, Torr, atm, inH2O, inHg, ftH2O, mmH2O, mmHg, mH2O, mHg, g/cm ² , kg/cm ² , m, cm, mm, g/cm ³ , kg/m ³
1.3	- 100.00 LRV KPa	Lower Range Value Corresponding to 4mA
1.4	100.00 URV KPa	Upper Range Value Corresponding to 20mA
1.5	88.888 DEC 3	Decimal 0 ~ 4
1.6	----- DSP PV	Home Screen Display PV-Primary Value, mA- Output Current, Eg-Engineering, %-Percent
1.7	0.8 DAMP S	Damping 0 ~ 4 Seconds
1.8	----- OUT LIN	Transfer Function LIN-Linear, SQR-Square Root, Eng-Engineering Quantity
1.9	3.8 ALM Lo	Alarm Output Current Hi-22.5mA, Lo-3.8mA
1.10	0.245 OFS KPa	Zero Offset Equals to Menu-3.1, If the actual value is 1.016 and the offset value is 0.006, then the displayed value = 1.016 - 0.006 = 1.010
1.11	----- MOR NUL	More Menu NUL-Null, ADV-Advanced, TRM-Trim, DEV-Device Data

Advanced Menu

No.	Example	Description
2.1	Sr 24618FB	Serial Number Also shown in BLE advertisement name
2.2	4.000 FIX mA	Fixed Current Output Input 0 to exit fixed current output mode.
2.3	1.000 DENSITY	Density g/cm ³ Must be set when measuring container height
2.4	10.0 HEIGHT m	Height m Must be set when measuring liquid density.
2.5	10 FILTER	Filter Number 0 ~ 30 The bigger the number, the smoother the output, the slower the response
2.6	10 FAST Pa	Fast response threshold When PV change exceeds the threshold, display immediately without filter

2.7	64 CUT KPa	Small signal cut-off When PV ≤ this value, display 0
2.8	12345 PWD	BLE Password Default: 12345 When modifying parameters via Bluetooth, you need to enter this password first.
2.9	0.00 LRL KPa	Lower Range Limit
2.10	1000.00 URL KPa	Upper Range Limit

Trim Menu

No.	Example	Description
3.1	0.0 IS PV: 0 NO	PV Zeroing Under zero pressure stable state, press S or Z to switch operation, press M key to confirm operation: NO-Do Nothing, YES-Do zeroing, CLR-Clear zeroing. Shortcut: Long press M in Home Screen
3.2	- 100. IS LTR NO	Lower Trim Operation must be under lower range pressure stable state: NO-Do nothing, YES-Do trim, CLR-Clear trim. Shortcut: Long press Z in Home Screen
3.3	99.8 IS UTR NO	High Trim Operation must be under upper range pressure stable state: NO-Do nothing, YES-Do trim, CLR-Clear trim. Shortcut: Long press S in Home Screen
3.4	----- REC NO	Data Recovery Restore transmitter parameters to the last backup data: NO-Do nothing, YES-Do recovery.

Device Data Menu

No.	Example	Description
4.1	84.5 MAX-T °C	Highest temperature during device usage
4.2	84.5 MIN-T °C	Lowest temperature during device usage
4.3	98.4 IS MAX KPa	Highest pressure during device usage
4.4	- 18.745 MIN KPa	Lowest pressure during device usage
4.5	Time 88888	Cumulative running minutes
4.6	CFG-t 887	Last modification time
4.7	8 CFG CNT	Total modification times