

WxSC800-355051

LTE Cat1 Uni-Call Button & RTU 2-in-1 Smart Terminal

Product Highlights

- ❖ LTE Cat1 Uni-Call Button & RTU 2-in-1 Smart Terminal
- ❖ 2-in-1 smart sensor(s) and RTU terminal product
- ❖ Optional DC 5V/DC 12V power supply
- ❖ Optional Battery power supply (ER34615H 19,000mAh/ER34615M 13,500mAh)
- ❖ Self reset switch, used for calling service scenarios
- ❖ Expandable with 2 of 14 types PSS gas sensors with aluminum sleeve enclosure
- ❖ Up to 8 working simultaneously including sensors and controllers; Customization needed if more than 8 working at the same time
- ❖ RTU controlling signal and interfaces OD/PWR triggered by sensor(s) data or OTA command for solenoid valve or other devices
- ❖ Optional (Public/Private) IoT cloud platform PolySuite iView

Products includes following parts:

- ❖ WxSC800 LTE Cat1 Smart IoT and RTU 2-in-1 Terminal
- ❖ ENC-102001 WxS Series 4.0 Enclosure(ϕ 145x90x55mm, IP67)
- ❖ PSS-355051 Uni-Call Button & Controller

Configuration Tool

- ❖ iEdge4.0 WxS IoT Terminal products can be configured with PolySuite software-visual based Configuration Tool or CLI interface command or OTA via IoT platform, such as PolySuite PaaS platform iView.
- ❖ Download link <http://ota.polysense.online/wincc/ConfigurationTool.rar>

Product Image

- ❖ The shell is WxS Series 4.0 Enclosure(ϕ 145x90x55mm, IP67) , as shown in the figure below
- ❖ The sensor is externally connected. See the following document PSS-355051 for the sensor picture



WxSC800

LTE Cat1 Smart IoT and RTU 2-in-1 Terminal

Related Products

Product .	Interf.	Descriptions
WxSC800	11MPI+RS485+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx00,PSB-BD01,&Enclosure)
WxSC801	RS485+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal (Inc.WxSC8xx,PSM-xx01,PSB-BD01,&Enclosure)
WxSC802	0-20mA*1+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx02,PSB-BD01,&Enclosure)
WxSC803	0-20mA*4+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx03,PSB-BD01,&Enclosure)
WxSC804	0-3.3V*2+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx04,PSB-BD01,&Enclosure)
WxSC805	0-3.3V*4+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx05,PSB-BD01,&Enclosure)
WxSC806	0-10V*2+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx06,PSB-BD01,&Enclosure)
WxSC807	0-10V*4+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx07,PSB-BD01,&Enclosure)
WxSC808	PT100*1+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx08,PSB-BD01,&Enclosure)
WxSC809	PT100*5+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx09,PSB-BD01,&Enclosure)
WxSC80A	Switch*1+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0A,PSB-BD01,&Enclosure)
WxSC80B	Switch*5+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0B,PSB-BD01,&Enclosure)
WxSC80C	Unibus*1+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0C,PSB-BD01,&Enclosure)
WxSC80D	Unibus*18+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0D,PSB-BD01,&Enclosure)
WxSC80E	IIC*1+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0E,PSB-BD01,&Enclosure)
WxSC80F	SPI*1+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0F,PSB-BD01,&Enclosure)
WxSC80G	Uart*2+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0G,PSB-BD01,&Enclosure)
WxSC80H	Uart*3+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0H,PSB-BD01,&Enclosure)
WxSC80J	Uart*1+RS485+OD*2+PWR*2	LTECat1 Smart IoT and RTU 2-in-1 Terminal(Inc.WxSC8xx,PSM-xx0J,PSB-BD01,&Enclosure)
WxSC850	Ai/Ao/Di/Pi/Ro/IIC/SPI/Ci + RS232/485/Ro/RJ45	LTE Cat1 Smart RTU

Product Highlights

- ❖ Interfaces supported:
 - MPI:(AIN(0-20mA)*2, PT100*1, VIN(0-10V/0-3.3V)*2, Switch*1 ,Unibus*1, IIC *1, SPI*1, Uart(3.3V TTL)*2), RS485*1
 - RTU interfaces
 - OD*2 output for external devices controlling
 - PWR*2 output for external devices/sensors power supply or customization usage
- ❖ 2-in-1 DC(5V/12V)+Battery(3.6V Li-SOCl2 ER34615H/M) Power Supply, DC in priority
- ❖ Up to 8 working simultaneously including sensors and controllers; Customization needed if more than 8 working at the same time
- ❖ Built-in sensor options including:
 - PSS-403011 IIC Temperature and Humidity Sensor (Indoor)
 - PSS-403012 RS485 Temperature and Humidity Sensor (Indoor)
 - PSS-403013 IIC Temperature and Humidity Sensor (IP67,Outdoor)
 - PSS-403014 RS485 Temperature and Humidity Sensor (IP67,Outdoor)
 - PSS-403015 IIC Temperature and Humidity Sensors (Indoor)

- PSS-403016 RS485 Temperature and Humidity Sensors (Indoor)
- PSS-403017 IIC Temperature and Humidity Sensors (IP67,Outdoor)
- PSS-403018 RS485 Temperature and Humidity Sensors (IP67,Outdoor)
- PSS-403019 IIC Temperature and Humidity Sensors (Indoor)
- PSS-40301A RS485 Temperature and Humidity Sensors (Indoor)
- PSS-40301B IIC Temperature and Humidity Sensors (IP67,Outdoor)
- PSS-40301C RS485 Temperature and Humidity Sensors (IP67,Outdoor)
- PSS-33B011 RS485 illumination Sensor(Indoor)
- PSS-423011 Uart AQI(PM2.5/10, SO2,NO2, O3, CO,Temp,Humidity) PPM Level Sensors
- PSS-423031 Uart IAQ(PM2.5/10, CO2, HCHO, Temp,Humidity) Sensors
- PSS-423041 Uart IAQ(PM2.5/10, CO2, TVOC, Temp,Humidity) Sensors
- PSS-423051 Uart IAQ(PM2.5/10, CO2, HCHO, TVOC,Temp,Humidity)Sensors
- PSS-318711 Uart GPS/Beidou Positioning Sensor
- PSS-318712 RS485 GPS/Beidou Positioning Sensor
- PSS-319311 0-3.3V Tilt / Inclination Sensor (SHM- Structure Health Monitoring)
- PSS-333051 0-3.3V PIR Sensor (3-4 Meters)
- PSS-333052 0-3.3V PIR Sensor (up to 20 Meters)
- PSS-334061 0-3.3V UV Sensor (Range:0-15 grade, outdoor)
- PSS-355051 Switch Uni-Call Button&Controller
- PSS-362011 Uart Sound/Noise Sensor (30~130dB range, Indoor)
- All Gas Sensors with Product No. PSS-21xxxx

❖ Support 1-8 enclosure externally connected sensors

- All enclosure external PSS sensors w/o separate power supply

❖ RTU OD&PWR(PWM) output control inferences

- OD output control interface for controlling external devices such as electric relay,AC contactor, beeper, draught fan, lamps and lantern etc.
- PWR*2 output, one default for external devices/sensors power supply voltage output, one with 3.3V voltage; or customization usage,such as for PWM port
- PWR port signal can be used as PWM output to control stepper moter or lamp
- Sensor(s) data or OTA Command triggered OD/PWR controlling signal&interfaces

❖ Power supply options:

- PSB-BT01 WxS Terminal Battery Power (3.6VDC Output) (3.6V Li-SOCI2 ER34615H/M)
- PSB-BT02 WxS Terminal Battery Power Board (3/5/9/12VDC Output) (3.6V Li-SOCI2 ER34615H/M)
- PSB-DC01 WxS Terminal DC Power Board (Inc.PSP-DC012V)
- PSB-BD01 WxS Terminal Battery (3.6V Li-SOCI2 ER34615H/M)&DC Power Board(Inc.PSP-DC012V)
- Battery capacity ER34615H: 19000mAh/ER34615M: 13500mAh

❖ iEdge 4.0 terminal enclosure options

- ENC-102001 WxS Series 4.0 Enclosure(ϕ 145x90x55mm, IP67)
- ENC-102002 WxS Series 4.0 Poromeric Enclosure(ϕ 145x90x59mm)

- ENC-102003 WxS Series 4.0 High Poromeric Enclosure(ϕ 145x90x70mm)
- ❖ Terminal and sensor parameters configurable with Configuration Tool running on PC
 - LTE Cat1 Bands Supported and SW Configurable
 - LTE Cat1 Uplink Transmission Cycle Configurable
 - Sensor Parameters Configurable
 - Sensor Data Report Cycle Configurable
- ❖ FOTA (Over The Air) firmware upgrade, including to upgrade loader and application images
- ❖ OTA (Over The Air) terminal running parameters supported including output signal
- ❖ Low power consumption, years of battery operational life with 3.6V Li-SOCl₂ ER34615H/M Battery with various scenarios
- ❖ Integrated internal antenna, or optional external SMA/IPEX antenna
- ❖ LTE Cat1 Compliance

Specifications

Parameters	Value
Smart Terminal	
Interfaces	MPI Interfaces-Any Mixture of Following: MPI:(AIN(0-20mA) *2, PT100 *1, VIN(0-10V/0-3.3V) *2, Switch *1 ,Unibus*1, IIC *1, SPI*1, Uart(3.3V TTL)*2), RS485*1 Output Control: OD*2&PWR*2
Data Report	Cross-threshold report, plus periodic report (the threshold and the periodic report cycle are both user-configurable)
Intensive data sampling and averaging	Support intensive data sampling and averaging to improve data accuracy
Wireless	
Regional Parameters	LTE-TDD:B34/B38/B39/B40/B41 LTE-FDD:B1/B3/B5/B8
Data	LTE-TDD: Up and down matching 2 8Mbps (DL) max/2Mbps (UL) max Up and down matching 1 6Mbps (DL) max/4Mbps (UL) max LTE-FDD: Max 10Mbps (DL)/Max 5Mbps (UL)
Sensitivity	FDD B1: -99dBm (10M) FDD B3: -99dBm (10M) FDD B5: -99dBm (10M) FDD B8: -99dBm (10M) TDD B34: -100dBm (10M) TDD B38: -100dBm (10M) TDD B39: -100dBm (10M) TDD B40: -100dBm (10M) TDD B41: -100dBm (10M)
Bandwidth	1.4/3/5/10/15/20MHz

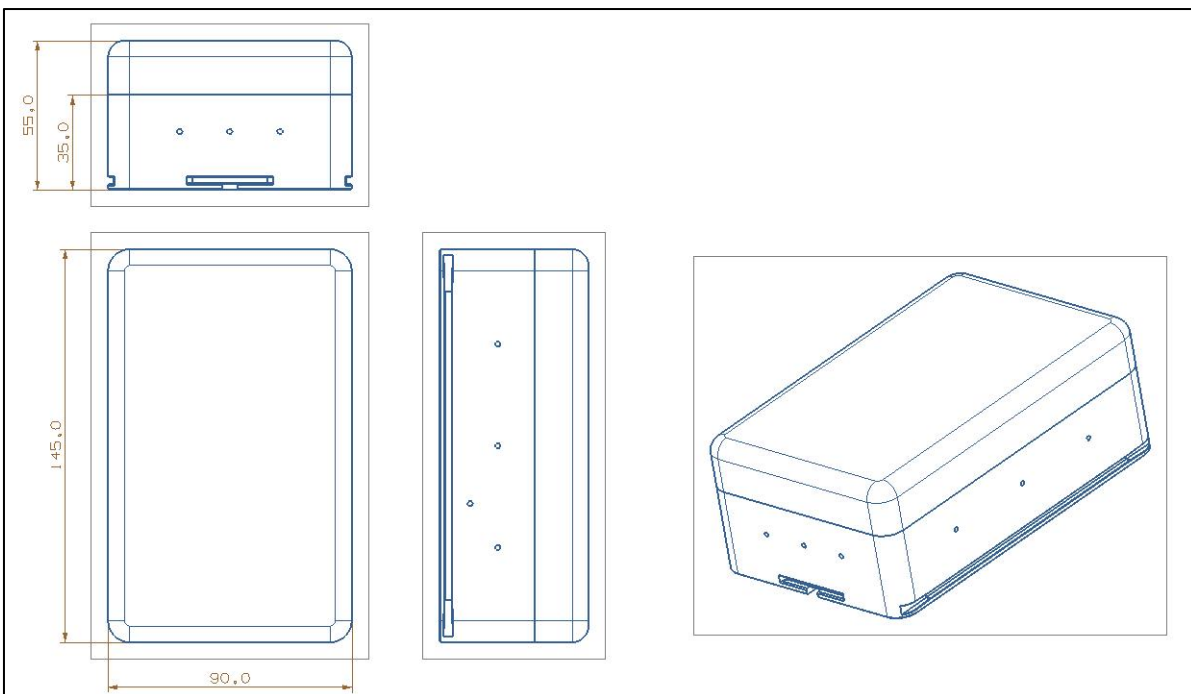
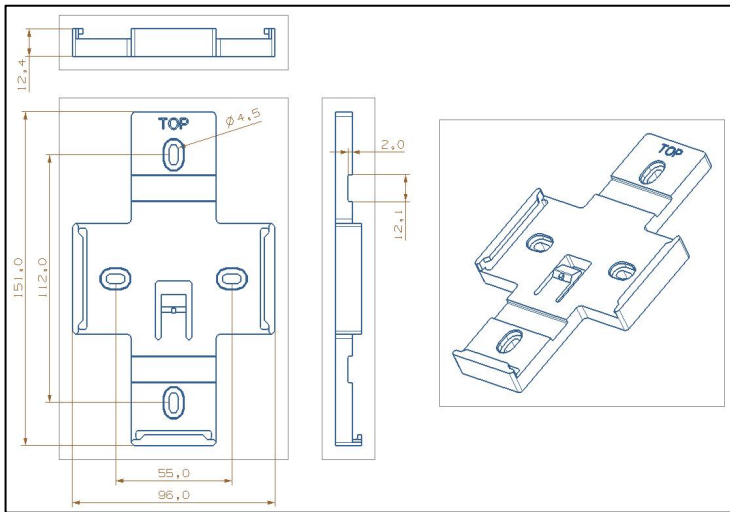
Output power	LTE-TDD: Class3 (23dBm+1/- 3dB) LTE-FDD: Class3(23dBm+-2dB)
Power consumption	1uA @ power off 0.6mA @ Sleep, typical
Interface	1 USB 2.0 high-speed interface (up to 480Mbps); Dual 1.8V/3.0V (U) SIM card interface 2 NETLIGHT interfaces (NET_STATUS and STATUS) 1 channel digital I2S interface, supporting external codec 3 UART interfaces (main serial port, universal serial port, debugging serial port) 1 SPI LCD interface 1 SPI Camera interface PWRKEY (valid at low level) 1 channel ADC interface
Antenna	Integrated internal antenna or external 1/2 wavelength whip antenna (SMA)
Mechanical	
Dimension	3 Enclosure options with different size WxS Series 4.0 Enclosure(φ145x90x55mm, IP67) WxS Series 4.0 Poromeric Enclosure(φ145x90x59mm) WxS Series 4.0 High Poromeric Enclosure(φ145x90x70mm)
IP rating	IP65&IP67
Operating Temperature	-40C to +85C
Total Weight	150 g
Electrical	
Supply Voltage	3.6VDC
Power Type	Replaceable 1 ER34615H/M 3.6V Li-SOCI2 Battery (H/M); DC 4.5V – 12V optional

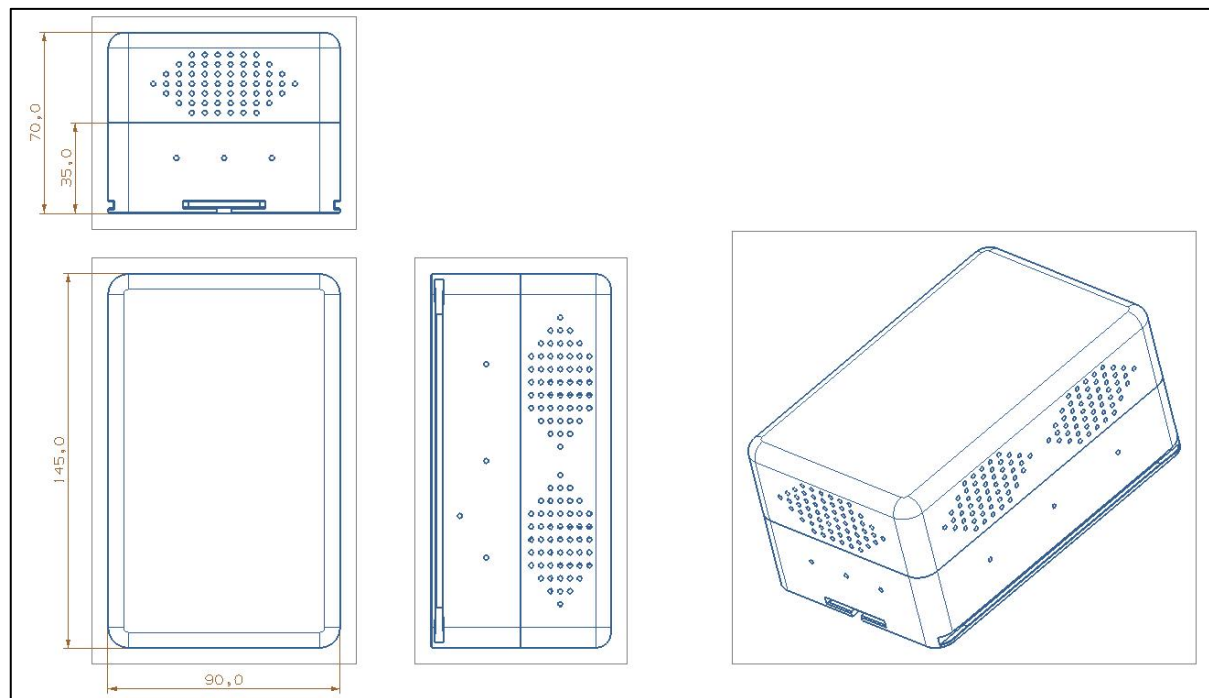
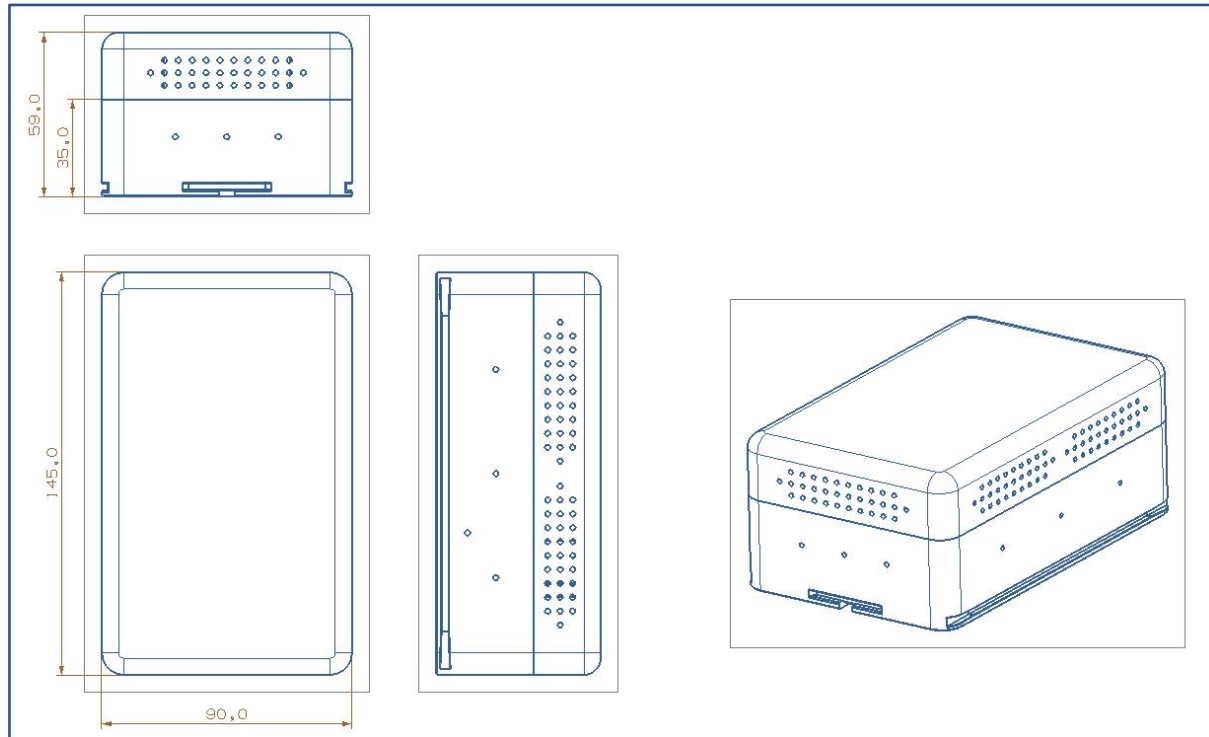
Configuration Tool

- ❖ iEdge4.0 WxS IoT Terminal products can be configured with PolySuite software-visual based Configuration Tool or CLI interface command or OTA via IoT platform, such as PolySuite PaaS platform iView.
- ❖ Download link <http://ota.polysense.online/wincc/ConfigurationTool.rar>

Installation Guide

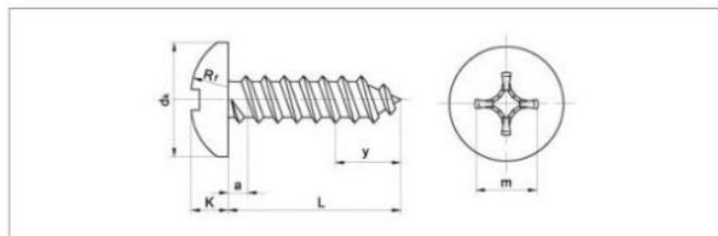
- ❖ Below diagram shows the general installation guide for WxSC800, it can be installed on any flat and solid surface:





❖ Below is the recommendation of the self-tapping screw and its sizes:

螺纹规格		ST2.2	ST2.9	ST3.5	ST4.2	ST4.8	ST5.5	ST6.3
dk	min	3.7	5.3	6.64	7.64	9.14	10.57	11.57
K	min	1.4	2.15	2.35	2.8	3.4	3.7	4.3
m		1.9	3	3.9	4.4	4.9	6.4	6.9
L		4.5mm~100mm						



Product Images

❖ WxS Series 4.0 Enclosure(φ145x90x55mm, IP67)



❖ WxS Series 4.0 Poromeric Enclosure(φ145x90x59mm)



❖ WxS Series 4.0 High Poromeric Enclosure(φ145x90x70mm)



PSS-355051

Uni-Call Button & Controller

Related Products

Product.	Interf.	Descriptions
PSS-355051	Switch	Uni-Call Button & Controller
PSS-355062	Switch	Dual Call button & Controller

Product introduction

PSS-355051 The call button is a metal push button self-reset switch. Press and pass, convenient and quick trigger state.

Detection principle

Self-reset switch, compatible with 0~250V voltage, power on when pressed, change state; After letting go, it can be reset and the state is restored.

Product features

- ❖ Self-resetting push button switch
- ❖ Metal protective case, high hardness, strong protection
- ❖ Built-in waterproof leather ring in the button head, IP65 waterproof rating
- ❖ Compatible with 0~250V voltage



Product parameters

Parameters	
Size	Default diameter 12mm (customizable 16/19/22mm)
Action stroke	≈1.6~1.8mm
Operation type	Self-resetting
Contact resistance	≤50mΩ
Insulation resistance	≥500mΩ
Mechanical life	≥1,000,000 times
Electrical life	≥50,000 times
Switch rating	2A/36VDC (12mm)
Interface	
Output signal	Switch/RS485
Warranty	
Warranty period	1year
Mechanics	
Size	12/16/19/22mm
Working temperature	-25℃~65℃
Power	
Supply Voltage	3.6 VDC
Power type	Low power consumption, 3.6V; 1or2 Li-SOCI2 Battery; 5~12VDC optional.

Application

It can be used for electric light button, call button, dining service and other application scenarios.

Ordering Guide

- ❖ PSS-355051 sensor is a sensor only, it needs to use with WxS terminals to combine to different product series; On the basis of the combination, multiple PSS sensors can be loaded through the Multiple Purpose Interface (MPI) of the intelligent IoT terminal.
- ❖ According to the specific scenario of use case, the enclosure and antenna of intelligent IoT terminal will be replaced to ensure the product quality and performance.
- ❖ PSS sensors can be integrated with the WxS terminal via the MPI interface to form different product series.
- ❖ Example of products are as follows:
 - WxS7800-355051 WiFi Series Uni-Call Button & RTU 2-in-1 Smart Terminal
 - WxS8800-355051 LoRaWAN Series Uni-Call Button & RTU 2-in-1 Smart Terminal
 - WxS9800-355051 NB-IoT (China) Series Uni-Call Button & RTU 2-in-1 Smart Terminal
 - WxS9900-355051 NB-IoT (Global) Series Uni-Call Button & RTU 2-in-1 Smart Terminal
 - WxSC800-355051 LTE Cat1 Series Uni-Call Button & RTU 2-in-1 Smart Terminal
 - WxSC900-355051 LTE Cat1 w/GPS Series Uni-Call Button & RTU 2-in-1 Smart Terminal
 - WxSD800-355051 LTE Cat4 Series Uni-Call Button & RTU 2-in-1 Smart Terminal
 - CxS1800-355051 Ethernet (RJ45) Series Uni-Call Button & RTU 2-in-1 Smart Terminal