

PASSERBELL

Marine intelligence | Elegant design | Precision engineering



DATASHEET: PASSERBELL TRANSMITTER

FEATURES

- RF transmitter
- 2 x No-Volt switch inputs
- Operating range: 868/918MHz version 1KM (+20dBm)
- Latching & momentary switch Input
- Ultra low power Standby Mode
- Integral CR2032 battery
- IP67 vandal resistant stainless-steel button
- 316 Marine grade stainless steel
- Compatible with Passerbell 868/918Mhz Receivers

MECHANICAL DIMENSIONS

- Tube Length: 100mm
- Tube Diameter: 36mm
- Button Diameter: 24mm
- Clamp Size: custom
- Weight: 385g

INTENDED APPLICATIONS

- Passerelle visitor alert
- Side gangway/Side boarding ladder visitor alert
- Crew call on vessel beach or on deck

TECHNICAL SPECIFICATIONS

Operating temperature: 0 - 55°C, Storage Temperature: -10 – 70°C
Supplied Battery Li-ion CR2032

Electrical Characteristics		Min	Typical	Max	Units
Internal Supply Voltage (CR2032)		1.8	3	3.3	Vdc
External Supply Voltage		4.5		24	Vdc
Antenna Output Lead Impedance			50		
Time from Input Active to Receiver Output Active			25		
Time from Input Active to Receiver Output Active					
Supply Current:	Deep Sleep: all inputs open		0.5		uA
	Transmitting RF Signal		85	110	mA
	Sleep: input Closed but after RF Transmission*			20	uA
Transmit Power 868 & 918MHz Version			+20		dBm
RF Transmit Packet Time			22		mSec

TRANSMIT TYPE

Latching Switch Operation

Jumper Link Fitted

Passerbell transmits a brief RF signal only when the input is activated or relaxed (State Change). Using this mode only consumes Transmit power when switch changes state. If the No-volt switch input is left open or closed Passerbell will return to “Deep Sleep”. This is the as factory delivered state of Passerbell.

Momentary Switch Operation

Jumper Link Open

Passerbell will continuously send an RF signal for as long as the switch input is activated. Using this mode consumes Transmit power for as long as the switch is active.

PAIRING TO A RECEIVER

In any Remote Control the Receiver “learns” the transmitted signal from the Passerbell, please follow the Receiver instructions for pairing. All Passerbell systems will come pre-paired.

BATTERY LIFE EXPECTANCY

Calculation for CR2032

- CR2032 provides 220mAH of capacity which provides ~300K Transmissions
- At 10 transmissions per day equates to 84 years
- At 100 transmissions per day equates to 8years!
(The CR2032 shelf life is about 10yrs)

OPERATION

The Passerbell will remain in ‘Deep Sleep’ mode at all times when no inputs are active.

When any of the No-Volt inputs change state, (Closes or Opens) Passerbell will wake up and Transmit an RF signal (within 22mSecs), four times in succession.

PART NUMBER

PBTX-01: 868MHz transmitter with internal Battery +20dBm

FEATURES

- Up to 200m Range
- 868MHz FM radio frequency
- 1 – 4 Channels each 1000W
- Waterproof Receiver (IP68)
- High Security RF Protocol
- 4 Changeover Relays Contacts Rated 5A @ 230Vac
- 6-32Vac/dc, 110V or 230Vac versions Available
- Outputs Momentary or Latching
- Any Switch Map to Any Relay
- Systems supplied 'Ready to Go'
- FCC Certified and CE Compliant

DATASHEET: CLEARSPHERE RX RECEIVER

TECHNICAL SPECIFICATIONS

Enclosure Rating: IP68

Dimensions: 130 x 112 x 42 mm (without antenna)

Operating Temperature: -10 to +50°C

Electrical Characteristics		Min	Typical	Max	Units
Supply Voltage for Low Voltage version		6		32	Vdc or Ac
Supply Voltage for High Voltage version			230		Vac
Relay Rating*			5	12	A
Supply Current:	Quiescent		25		mA
	All (4) relays operating*		140		
Time delay from Tx on Switch to Rx Relay operation			30		mS
Time delay from Tx sw relax to Rx Relay release			30		mS

DESCRIPTION

A versatile general-purpose Remote-Control Receiver. Housed in a rugged IP68 weatherproof enclosure, The ClearSphere RX receiver is ideally suited to any remote switch requirement. With up to 4 changeover relay switch outputs each output can be controlled from any connected switch, Passerbell or ClearSphere Crew Call transmitter. Additional transmitters may be added to the system using the same 'easy-learn' process without opening the enclosure.

Installation is by screw terminals to the power supply and the output relay contacts. The output relays are activated by the button press on the transmitter encoder.

INTENDED USE

The ClearSphere RX Receiver is an industrial product intended for installation by a qualified professional person

RELAY OUTPUTS

The receiver provides 4 changeover relay switches each capable of switching up to 1.2KW (5A @ 230V). Each relay is independent and separately controlled and can therefore be used to switch most voltages either ac or dc.

Each output relay provides an isolated switch. Connections are Common (COM), Normally Open (NO) and Normally Closed (NC).

APPLICATIONS

- Passerbell RX receiver
- ClearSphere Crew Call receiver

PART NUMBERS

Part Numbers and power supply

CSRX-01-DC	4 Channel System	6-32Vac/dc
CSRX-01-AC	2 Channel System	230Vac