22Km Range DIN Rail RF Receiver

- 4 Channel RF Receiver
- Range
  - LORA Mode up to **22km**
  - FSK Mode up to **4km**
- 4 x Relay Contacts 5A @ 230Vac
- Supply 6-32Vdc
- Slim 23mm wide Enclosure
- LED Signal Strength Indication
- SMA Antenna Connection
- Outputs Mom / Latching / Timed
- Any Switch Map to Any Relay
- Watchdog Option
- Systems supplied 'ready to Go'
- Antenna included
- Available as either:
- 868MHz for us in (Europe)
- 918MHz for use in (USA & Australia)



Applications

- Industrial, Conveyors, Machinery, Pumps
- General Purpose Telemetry
- M2M Control Switching

Description

A versatile Remote Control Receiver System for many different applications.

This slim DIN Rail Receiver is ideally suited to many industrial systems. Installation is by screw terminals and the unit can be powered from a wide dc supply voltage.

The outputs can easily be configured to operate in many different modes of operation including; Momentary, Timed or Latching functions with programmable Watchdog.

Part Number	Description
SLIMDIN-8R4	DIN Rail Receiver 868MHz 4 Channels inc Antenna
SLIMDIN-9R4	DIN Rail Receiver 918MHz 4 Channels inc Antenna

SLIMDIN Receiver

What's in the Box?

1. DIN Receiver Unit
2. Whip Antenna

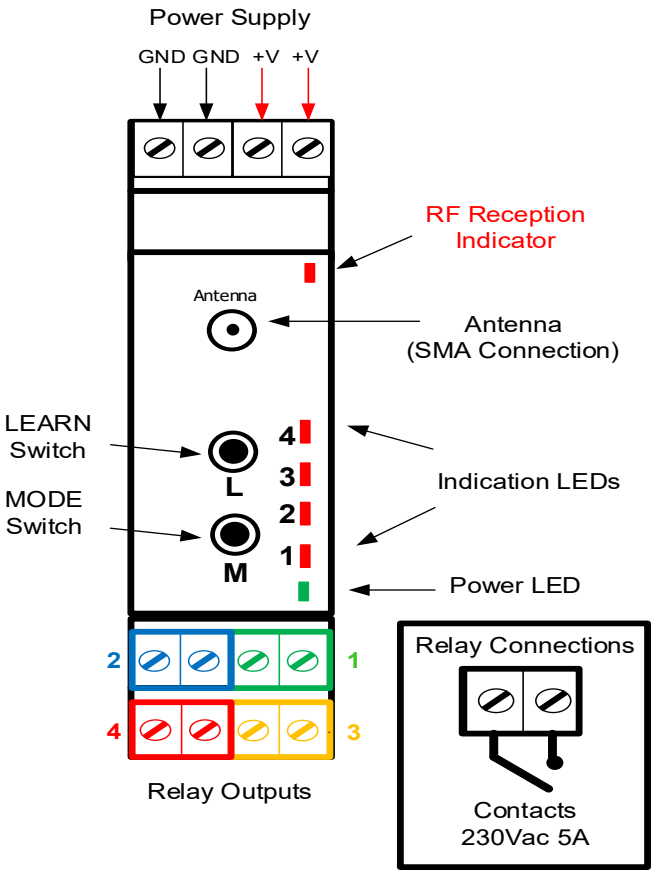




Front Panel Connections







RF Reception Indicator

Flashes when a compatible RF signal is received (even when transmitter is unpaired).

Indication LEDs

In Normal Operation: Indicates the output relay status.

In Self Test Mode: indicate Received RF Signal Strength.

To 'LEARN' a new transmitter

1. Press and hold Learn Switch for a couple of seconds until LED 1 illuminates
2. This indicates relay output 1 is selected
3. Repeat press the Learn Switch until the LED indicates the chosen relay output to be paired.
4. When Chosen Relay number is selected operate the transmitter that you want to pair with it
5. The learn LED will flash to indicate pairing is complete

Erasing ALL Transmitters

1. Press and hold the Learn switch for approx. 10 seconds.
2. When All LEDS Flash all memory is erased

NOTE: You cannot erase individual Tx encoders

To Configure Receiver Operation

There are 4 Menus to configure;

Menu 1: Relay outputs Operation according to the **Table** below

Menu 2: Time Delays on the Relay Outputs

Menu 3: RF MODE

Menu 4: Watchdog / Power on Relay Status

Menu 1 Output Relay Operation

To enter Menu 1 press and hold the M switch until LED 1 flashes (about 2 seconds).

Press L Switch to confirm selection

You are now in Relay Outputs Operation mode

Repeat press the M switch to select the Relay Operation from the table below

Press L Switch to confirm selection and exit

	Relay Outputs Operation			
LED	RLY 1	RLY 2	RLY 3	RLY 4
1 (Default)	**Momentary**	**Momentary**	**Momentary**	**Momentary**
2	Latching	Latching	Momentary	Momentary
3	Latching	Latching	Latching	Latching
4	Timed	Timed	Timed	Timed

Definition of Terms

Momentary Output is active for as long as the Transmitter input is pressed

Latching Output changes state each time the transmitter is operated

Timed Output will operate for the set time, Each operation of transmitter will start the timer.

Default mode in **Bold**

Menu 2 Set Relay Timed Output

This menus is used to set individual time delays for the relay outputs.

Each relay output can have a time delay of up to 9,999 seconds. Each digit of the time delay (in seconds) is programmed into the Receiver. If no time setting is set the receiver will default to 5 secs Momentary operation.

Enter Time Delay Setting Menu

To enter Menu 2 press and hold the M switch until LED 1 flashes (about 2 secs).

Repeat Press M switch again so that LED 2 is flashing.

Press L Switch to confirm selection. You are now in Time Delay setting.

Select Relay Output

LED is flashing slowly to indicate the chosen Relay output.

Repeat Press the M switch to step through to the relay output you want to set a time delay on.

When chosen output Relay is selected press L to confirm.

Set Time Delay

All LEDs stay Illuminated (to show you are setting the time delay) apart from the LED indicating the digit you are setting.

starting with the thousands digit, (LED 1) ending with the "units" digit (LED4).

Starting With LED1 extinguished:

Pressing M switch increments the digit by 1 (so to set a four thousand Seconds press the M Switch 4 times).

Pressing L switch confirms and moves to the next digit.

Step through each digit setting the time delay increment by pressing the M switch and then L switch to confirm.

After the units digit has been set and confirmed the Receiver will display a summary of time delay setting digit by digit on each LED.

LED1 will flash to display the Thousands of seconds delay that has been set.

LED2 will flash to display the hundred of seconds delay that has been set.

And so on…

Display Current Time Delay Setting

You can check to see what pre-set time delay is programmed by the following;

Enter Time Delay Setting Menu (as above)

Select Output Relay (as above)

Wait for 10 secs, the receiver display a summary of time delay setting digit by digit on each LED.

Note:

During normal operation If the user presses the Transmitter Button during a Timed Delay Output, the output Time Delay is started again

Menu 3 RF Mode

Note: On initial power up, the Receiver unit will flash all LEDs indicate which RF Mode is currently set!

To enter Menu 3 press the M switch until LED 1 flashes (about 2 secs).

Repeat Press M switch so that LED 3 is flashing

Press L Switch to confirm selection

LED 1 will flash slowly.

Repeat press the M switch to select the RF Mode from the table below

Press L Switch to confirm selection

ALL LEDs will Flash to confirm the RF Modes selected and exit.

LED	868MHz	918MHz
1	**FSK (default)**	LORA Mode 2
2	LORA Mode 1	**LORA Mode 3 (default)**
3	LORA Mode 3	LORA Mode 5
4	LORA Mode 7	LORA Mode 7

Menu 4 Watchdog / Power on Relay Status

When Watchdog is enabled Relay Output 4 is a "Watchdog" Output.

Relay Output 4 is held 'ON' as long as a valid transmitted signal is received within the "watchdog time period". If the receiver fails to receive a single valid transmission within the "watchdog time period" then Relay Output 4 will dropout.

The "watchdog time period" is set to 30mins by default. This time can be changed by setting the Time Delay (Menu 2) specifically for Output Relay 4.

We recommend that the "watchdog time period" on the receiver be set to at least three times the regular transmission interval from the transmitter to prevent false drop outs.

To enter Menu 4 press the M switch until LED 1 flashes (about 2 secs).

Repeat Press M switch so that LED 4 is flashing.

Press L Switch to confirm selection.

LED 1 will illuminate.

Press the M switch to select Watchdog from table below

LED 4	RF Mode
ON	Watchdog is ENABLED
OFF	**Watchdog is DISABLED (default)**

Press L Switch to confirm selection

LED 2 will illuminate

Repeat press the M switch to select the Relay Power on Status from the table below

LED 2	Relay Status After Power-up
ON	**Relays will be relaxed / open Circuit (default)**
OFF	Relays will be restored to the status prior to power being removed

Press L Switch to confirm selection

Menu 4 Watchdog / Power on Relay Status

When Watchdog is enabled Relay Output 4 is a "Watchdog" Output.

Relay Output 4 is held 'ON' as long as a valid transmitted signal is received within the "watchdog time period". If the receiver fails to receive a single valid transmission within the "watchdog time period" then Relay Output 4 will dropout.

The "watchdog time period" is set to 10secs by default. This time can be changed by setting the Time Delay (Menu 2) specifically for Output Relay 4.

We recommend that the "watchdog time period" on the receiver be set to at least three times the regular transmission interval from the transmitter to prevent false drop outs

To enter Menu 4 press the M switch until LED 1 flashes (about 2 secs).

Repeat Press M switch so that LED 4 is flashing, Press L Switch to confirm selection

LED 1 will flash slowly (setting Watchdog). Press L Switch to confirm selection

Repeat press the M switch to select the Watchdog Mode from the table below

Press L Switch to confirm selection

LED 4	RF Mode
ON	Watchdog is ENABLED
OFF	**Watchdog is DISABLED (default)**

Power on Relay Status

Is Power on Relay Status is enabled, the status of the relay outputs are recovered in the event of a power cut.

To enter Menu 4 press the M switch until LED 1 flashes (about 2 secs).

Repeat Press M switch so that LED 4 is flashing, Press L Switch to confirm selection

LED 1 will flash slowly (setting Watchdog).

Press M switch so that LED 2 is flashing slowly, Press L Switch to confirm selection

Repeat press the M switch to select the Power on Mode from the table below

Press L Switch to confirm selection

LED 4	Relay Status After Power-up
ON	**Relays will be relaxed / open Circuit (default)**
OFF	Relays will be restored to the status prior to power being removed

SLIMDIN Receiver

Technical Specifications

Enclosure Rating	IP40
Dimensions	88.4 x 56.4 x 22.5 mm (not including antenna)
Storage Temperature:	-10 to +90° Celsius.
Operating Temperature:	-10 to +60° Celsius.
Absolute max voltage :	+34V.

Electrical Characteristics		MIN	TYP	MAX	Dimension
Supply Voltage		6		32	Vdc
Supply Current :	Quiescent		26		mA
	All relays operating*		85		mA
Frequency			869.500 918.000		MHz
Relay Rating* (230Vac) RLY1-4				5	A
Time from Tx 'ON' Switch to Rx Relay operation					
	FSK		30		mS
	LORA		30-1500		
Time from Tx 'OFF' Switch to Rx Relay operation					
	FSK		30		mS
	LORA		30-1500		

*The relay contacts in this unit are for functional use only and must not be used for isolation purposes.

Self Test

Press and hold Learn and Mode Switch together then apply power. When ALL indication LEDs illuminate, you can release the Learn and Mode Switches.

Self Test now performs the following functions

1. Operate Relay's 1-4 , (Await user press M Switch)
2. Momentarily Operate all LEDs 1-4, then RF Signal LED (Await user press M Switch)
3. Transmit RF Test Signal (All LEDS flash together)

Restore to Factory Default Settings

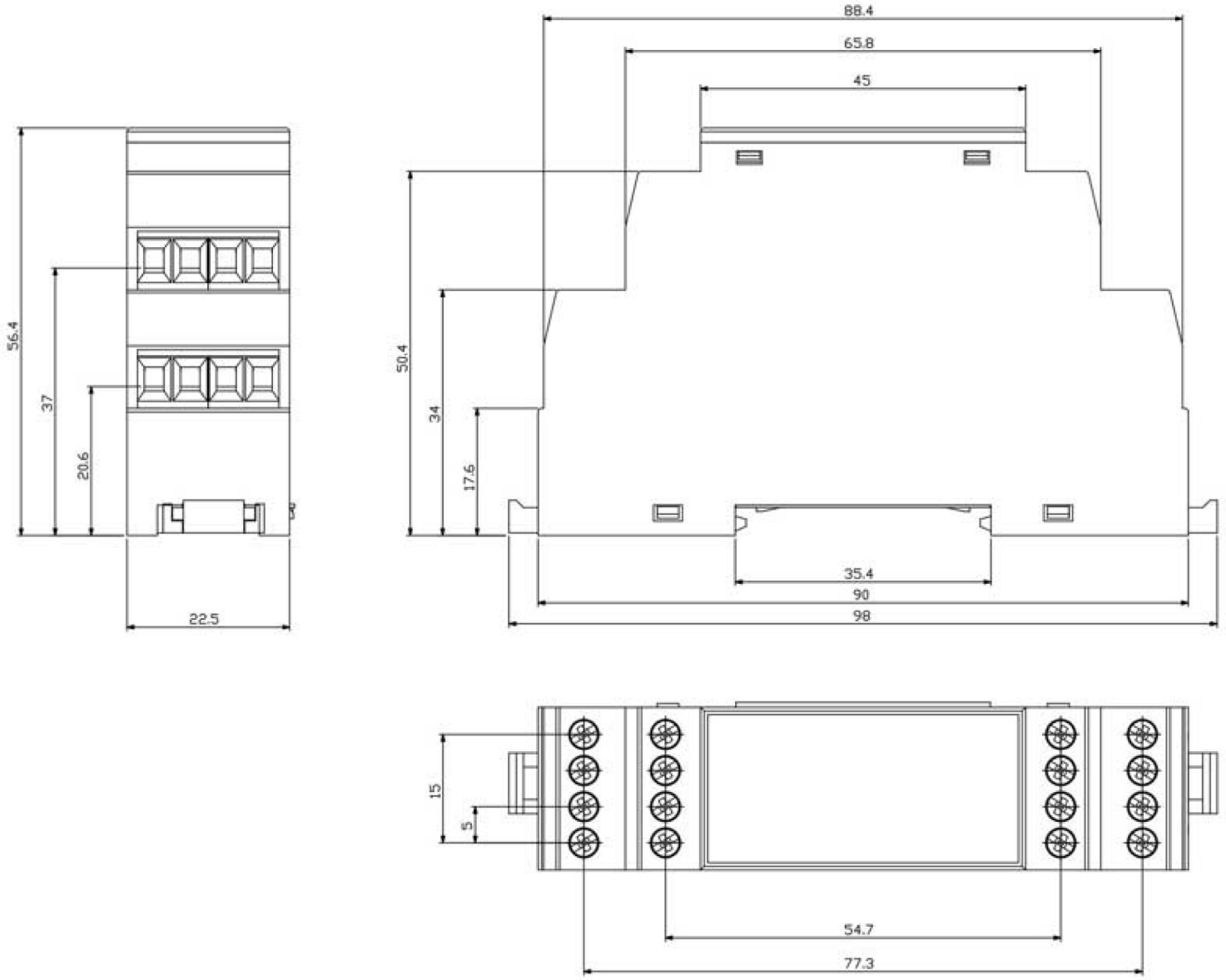
This completely erases, timers modes, Watchdog and resets the Module to Factory Defaults;

1. Press and hold Mode Switch for approx. 10 seconds.
2. When All LEDS Fast Flash together al user configuration is reset

Note: This does not Erase Paired Transmitters.

To erase all Transmitter Pairings and you must also "Erase all Transmitters"

Mechanical Details



SLIMDIN Receiver

Simplified Declaration of Conformity (RED)

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