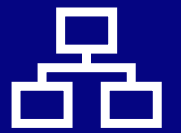


R-IDENT

RECEIVER READERS: RX1 AND RX2



COLTER GROUP

19/07/2005 Ver 2.1

DETAILS:

R-IDENT is a low cost, low power radio tagging system with a range of up to 200m.

Any type of **R-IDENT** receiver can be used with any type of **R-IDENT** transmitter. There are several different types of receiver available. Types: **RX1** and **RX2** are described in this datasheet.

The **RX1** receiver is designed for short range AUTO-ID applications. The **RX1** analyses all of the data packets (transmissions from tags) that it receives in a one minute time period and identifies the closest transmitter, this is deemed to be the transmitter with the strongest signal.

The data packet that is received from the closest transmitter is sent out of the **RX1**'s RS232 serial port at the end of each one minute period.

The **RX2** receiver sends all the data packets (transmissions from tags) that it receives to a host system (generally a PC) via it's serial port. This data can be analysed by a host system and used as required for instance: to compile a database of transmitters within the range of the **RX2**.

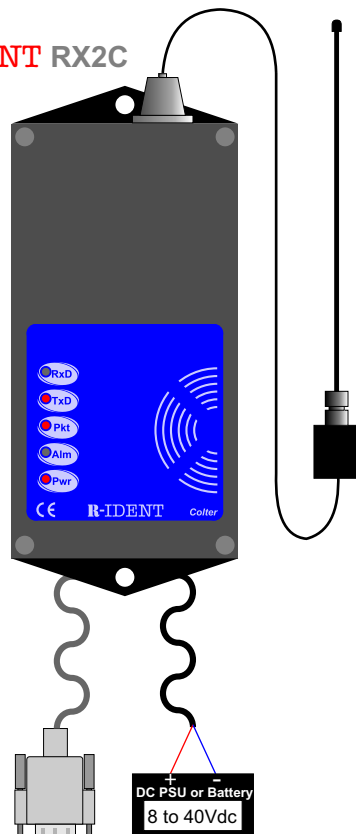
For more information about the structure of the data packets please see the R-IDENT Protocol Details datasheet.

RECEIVER TYPES:

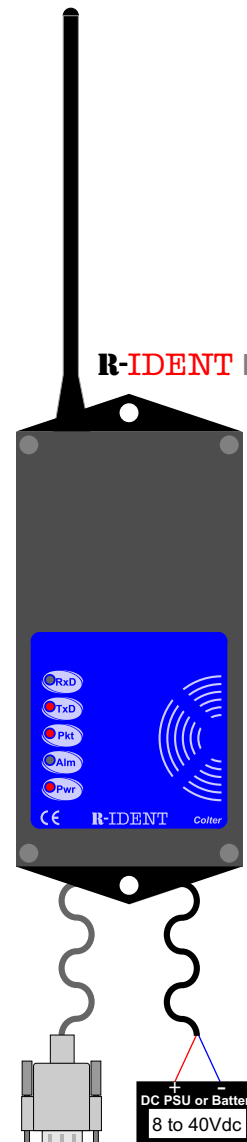
R-IDENT RX1A



R-IDENT RX2C



R-IDENT RX2B



LED DESCRIPTIONS:

The functions of the LEDs on the front panel are described below:

RxD: Illuminates when receiving data on the RS232 cable (not actually used on RX1 and RX2).

TxD: Illuminates when R-IDENT receiver is sending data out of the RS232 cable to the host system.

Pkt: Illuminates briefly every time a packet of data is received from a transmitter.

Alm: Illuminates when there is continuous background 433MHz radio data from other 3rd party sources which are interrupting the operation of the R-IDENT system.

Pwr: Illuminates when power is applied to the R-IDENT receiver.

SPECIFICATIONS:

	Receiver Type	
	RX1n	RX2n
RF Characteristics	Low Power 433MHz (license exempt in UK and Europe)	Low Power 433MHz (license exempt in UK and Europe)
Operating Temperature	-20°C to +85°C	-20° to +85°C
Weight	370g (excluding aerial)	370g (excluding aerial)
Dimensions	76mm wide, 176mm high, 47.5mm deep	76mm wide, 176mm high, 47.5mm deep
Ingress Protection	I.P. 67	I.P. 67 (I.P. 60 if RX2C due to aerial connector)
Power Requirements	8Vdc to 40V dc	8Vdc to 40V dc
Current Consumption @ 12Vdc	25mA	25mA
Current Consumption @ 24Vdc	14mA	14mA
Host Communications	RS232, Baud Rate 9600, 8 data bits, 1 stop bit, no parity	RS232, Baud Rate 9600, 8 data bits, 1 stop bit, no parity
Alarm Contact	N/A	N/A

AERIAL TYPES / PART NUMBERS:

The receives are available with various aerial types. The types and part numbers are shown below:

RX1A: Internal Aerial - Shortest Range.

RX2A: Internal Aerial - Shortest Range

RX2B: External Aerial - Medium Range

RX2C: Remote External Aerial -Longest Range (aerial is connected to cable which plugs into connector on unit - for remote mounting away from the unit)

CONNECTION DETAILS:

Grey Communication Cable (Individual cores described below) :

YELLOW core: **RxD** Received data from host system eg. PC Not used on RX1 and RX2.
GREEN core: **TxD** Transmitted data from R-IDENT receiver to host system eg. PC
WHITE core: **0V (comms)** Communications 0V connection.

NOTE: As standard the communication cable is supplied with bare wires. A connector to suit your application may be fitted by Colter at your request. Please contact Colter for further information.

Black Power and Alarm Cable (Individual cores described below):

RED core: Connect to power supply +8Vdc to +40Vdc.
BLUE core: Connect to power supply 0V

Standard cable lengths are 3m. Longer cables may be supplied at customer request in multiples of 1m. Please contact Colter for further information.

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