Robust Data Comm

Making Industrial Data Flow Like Water ... Safely, Silently, & Sanely

CO. & GST REG. NO: 19-9600 372-Z

ISO 9001:2008 CERT NO.: 158206

Model: rdcZBK

ZigBee to RS-232 / RS-485 Converter

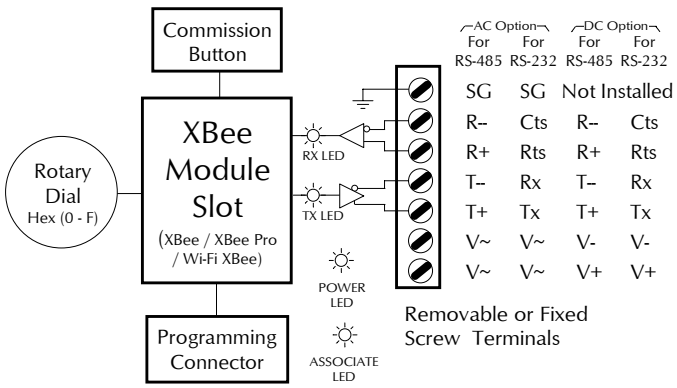
The rdcZBK is an OEM-friendly, easy to deploy platform for using Digi's Xbee wireless modules to retrofit serial devices. It supports Digi XBee with 802.15.4, Zigbee, DigiMesh 2.4 and 900, Point-to-MultiPoint 868 and 900Mhz and the new WiFi XBee.

On the serial side, there is a choice of either a RS-232 or RS-485 port. Its small form factor makes the rdcZBK easy to encase or mount. For ease of use, a commissioning button is provided and an optional rotary dial caters for remote detection.

The power terminals are protected against reverse wiring and 600-W industrial surge diodes (industrial grade option only) have been installed on the serial lines.

A XBee module can be programmed directly on the rdcZBK by using the rdcUSBTool. For OEM users, a special jig is available for mass programming and testing. Contact us at www.robustdc.com for more information.

Block Diagram



Order Information

rdcZBK-□-□-□-□-□

Biasing Options (RS-485 Only)
- x — No pull-ups installed
- b — 470-ohm pull-ups installed

Rotary Dial Options
- x — Rotary Dial not included
- d — Rotary Dial included

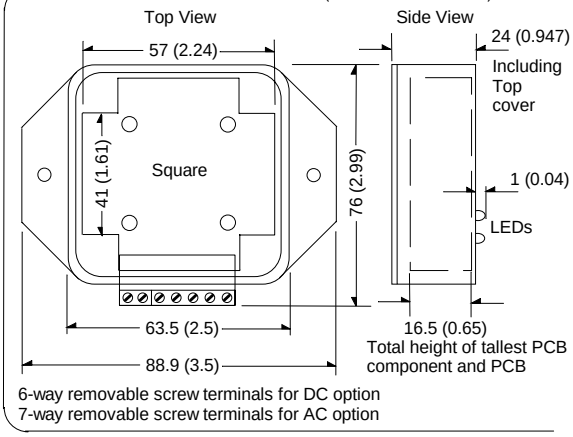
Casing Options
- h — Harpoon spacers included, casing not included
- t — Threaded spacers included, casing not included
- c — Casing included, rdcZBK pre-mounted in case

Serial Options
- 2 — RS-232
- 4 — RS-485 (Selectable 2 or 4 wire mode)

Power Supply Options
- ac — 16 to 28 Vac
- dc — 7 to 30 Vdc

Note : Boxes in bold denote factory default options
When the casing option is selected, a right-angled rotary dial and commission button, LED spacers and removable screw terminals will be included. Otherwise, a straight (facing up) rotary dial, commission button and fixed screw terminals will be provided instead.

Dimensions in mm (and inches)



6-way removable screw terminals for DC option
7-way removable screw terminals for AC option

Specification

Ports — RS-232 — RS-485

Signal Type ..... : EIA/RS-232E .....: EIA/RS-422A & RS-485A
Voltage Level .....: +/- 9 vDC .....: –7 to +12vDC
Permitted Surge .: +/- 15 vDC .....: +/- 15 vDC

Power Supply:

7 to 30 vDC.....: 30 mA @ 24 vDC (DC option)
16 to 28 vAC.....: 30 mA @ 16 vAC (AC option)

Blue LED indicates power status

Communication:

Max Speed .....: Up to 115 Kbps
Character Setting ...: Transparent, no configuration required
User Indications .....: Yellow LED for Transmit and Receive
Green LED for Association
RS-232 Distance .... : Standard - 8 m, practical - 15m
RS-485 Distance .... : Standard - 1000m, practical - 2000m
(Practical distance requires quality, low-cap cable < 50 pf/m)

Certifications:

UL 60950 *(dc option only)*
FCC 15B *(dc option only)*
RoHS

Mechanical / Environment:

Operating Range ..: -20 to + 65C
Storage Range .....: -40C to +85C
Relative Humidity .: 10 to 90% RH, non-condensing
Terminals .....: wire up to 2.5mm (12 AWG)
Case Material .....: ABS
Weight .....: approx 100g (inc casing, XBee and RPSMA Ant)

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(Version 1.3) Specifications subject to change without notice.

Robust DataComm Pte Ltd (USA) 16415 Addison Rd, Suite 550, Addison, TX 75001, Phone: +972-248-7466, Fax: +972-248-9533
(International) 18 Kaki Bukit Road 3 #02-08 Entrepreneur Business Centre Singapore 415978, +65,6487-5624