

WIEGAND - USB (HID) / UART(3V3) - USB (HID) CONVERTER

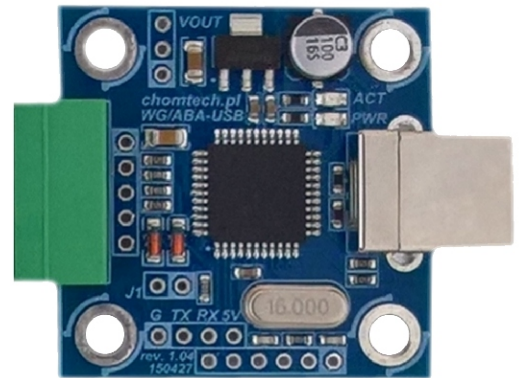
The converter with standard WIEGAND readers widely used in access control systems. The device allows you to convert the interface WIEGAND to the standard interface used by the USB HID (*Human Interface Device*). It is also possible to connect serial readers RS232 (TTL/3V6).

The converter allow to modernize and extend the functionality of the solutions – can be an alternative to costly replacement of the entire system. Device is used especially in systems: security, access control, time registration, logistics, warehouse, etc.

The use of universal interfaces allows to adjust or migrate different kinds of systems, readers, card.

In the case of special needs converter can be programmed by individually tailored and custom algorithms.

To be built in (OEM).

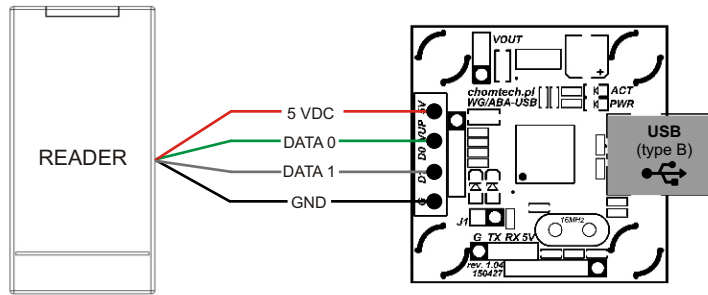


TECHNICAL SPECIFICATIONS

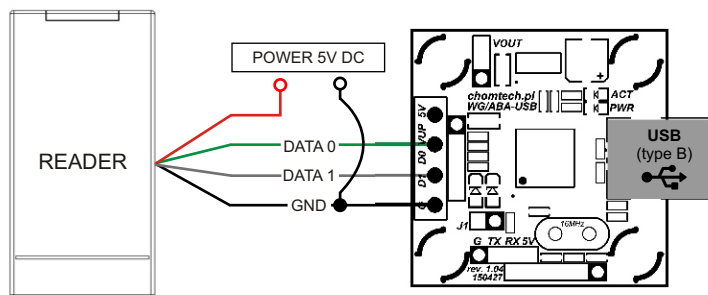
POWER SUPPLY	5V DC from USB port
POWER CONSUMPTION	~15mA (without readers)
POWER READER	USB port (5V DC, max. 100mA) ----- external power supply (in accordance with the reader of the parameters)
COMPLIES WITH USB	USB 1.1, USB 2.0
READER'S INTERFACE	WIEGAND and RS transmission parameters in accordance with serial RS-232 (TTL/3V6))
COMPATIBLE READERS	proximity, biometrics, barcodes, magnetic, OCR, ICR, OMR, RFID UHF
TYPES OF CARD	compatibility with the reader technology
YELLOW LED	indicates proper operation
RED LED	receiving data signals WIEGAND or RS interface
TRANSMISSION PARAMETERS OF THE RS	2400kbps, None, 8.1
DIMENSIONS [mm]	36 x 38,6 x 15
WEIGHT (g)	10 (PCB)
MOUNTING HOLES	4pcs - diameter 4mm
OPERATING TEMPERATURE	-10°C - +55°C
STORAGE TEMPERATURE	-20°C - +70°C
HUMIDITY RELATIVE	under 80%
OPTIONS	AC adapter 12V DC, 500mA; connection cables - 1m; housing (material - ABS)

EXAMPLE OF CONNECTION DIAGRAM

EXAMPLES OF CONNECTION TO THE READER (POWER FROM USB PORT)



EXAMPLES OF CONNECTION TO THE READER (EXTERNAL POWER SUPPLY)



MEANS OF COMMUNICATIONS

The device works as HID (*Human Device Interface*). Receives number in the standard WIEGAND or RS, generating on the port USB frame in pictured form below.

Frame construction (13B)

- B0 - star frame (0xE1), SOP
- B1 - interface (0x80 - WIEGAND, 0x90 - UART)
- B2 - bits of data
- B3, B10 - 8 bytes of data from the reader
- B11 - one byte XOR checksum
- B12 - end of the frame (0xE2), EOP

Example

Calculating the checksum of one byte (XOR) with bites B1...B10:
- 0xE1

- 0x80	10000000
- 0x32	00110010
- 0x00	00000000
- 0x00	00000000
- 0x00	00000000
- 0x06	00001010
- 0x00	00000000
- 0x32	00110010
- 0x00	00000000
- 0x00	00000000
- 0x86	10001010

XOR from all bytes above (0 - is even), there where add number number

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