![ELATEC RFID Systems logo]

TWN4 MultiTech 2 LEGIC

(LEGIC SM-4200/4500 frontend)

Multi-frequency RFID reader (LF/HF) with NFC and BLE support

TWN4 MultiTech 2 LEGIC
(exemplary illustration)

The contactless RFID readers and modules of the ELATEC TWN4 MultiTech 2 LEGIC family are a direct enhancement of the TWN4 MultiTech LEGIC readers with the same form factors (PCB modules and desktop readers with housing). During the development of the TWN4 MultiTech 2 LEGIC family, special emphasis has been placed on optimizing the HF performance (13.56 MHz). Compared to the predecessor TWN4 MultiTech LEGIC, the read range could be increased by more than 50% for LEGIC transponders and even doubled for some HF transponders.

TWN4 MultiTech 2 LEGIC key features include a powerful SDK for writing apps that are executed directly on the reader, the possibility to upgrade the firmware in the field, transparent data exchange with the RFID media, and a powerful BLE module. Additionally, the reader can read more than 60 RFID technologies from low (LF) and high frequency (HF) bands, including NFC. This gives the option to select as many of the technologies required instead of being forced to select just a few ones.

Special features:

+ Possibility to read more than 60 RFID technologies
+ Two RFID frequencies (125 kHz/13.56 MHz), NFC and BLE
+ Optimized HF and BLE read performance
+ Powerful SDK for writing apps which are executed directly on the reader
+ Firmware update in the field possible
+ On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
+ Supports transparent data exchange with RFID media
+ CCID and PC/SC 2.01
+ Support of segment initialization function (LEGIC SM-4500 frontend only)

| Elevator | EV Chargers | Access | Shop POS | Fitness Equipment | Ticket POS | PC Log-on | Document Management | Driver ID | Vending | Parking | Gaming | Locker Locks | Time Attendance | Industrial PC |

TECHNICAL DATA

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF) / 2.4 GHz (BLE)
ANTENNAS	Integrated
HOUSING	Material: ABS UL94-V0 Color: black or white
DIMENSIONS (L X W X H)	Approx. 88.00 x 56.00 x 18.50 mm / 3.46 x 2.20 x 0.73 inch
POWER	USB: 4.3 V - 5.5 V RS-232: requires 5 V external power supply ES1/PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 140 mA typically
TEMPERATURE RANGE	Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Storage: -40 °C up to +75 °C (-40 °F up to +167 °F)
RELATIVE HUMIDITY	5% to 95% non-condensing
READ/WRITE DISTANCE	LF and HF: up to 100 mm / 4 inch, depending on environment and transponder BLE: up to several meters/feet
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
BLUETOOTH LOW ENERGY	BLE version 5.x
MTBF	500,000 hours
WEIGHT	Approx. 120 g / 4.23 oz (with cable)
SUPPORTED OPTIONS AND TRANSPONDERS	Depending on the firmware version and installed options, ELATEC readers and modules can support a wide range of RFID technologies. Please refer to the relevant ELATEC transponder matrix (available at www.elatec-rfid.com/int/transponder-technology) for more information about the available options and RFID technologies supported by the product.
OS SUPPORT	Windows 7 (32-/64-bit) and higher versions, Linux, Android[1], iOS[1], MAC OS X[1]
PERIPHERAL INTERFACES	USB, RS-232, 1 free SAM slot[2] for ID-000 card format
TRANSMISSION SPEED	Host: USB full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s
CERTIFICATION NAME	TWN4 MultiTech 2 LEGIC
CERTIFICATIONS	Non-exhaustive list[3]: CE/RED, FCC, IC, TAA compliant, REACH and RoHS-III compliant

[1]On request

[2]The reader has one free SAM slot only, as one SAM slot is equipped ex-works with the BLE SAM card. It is strictly prohibited to take the BLE SAM card out of the SAM slot.
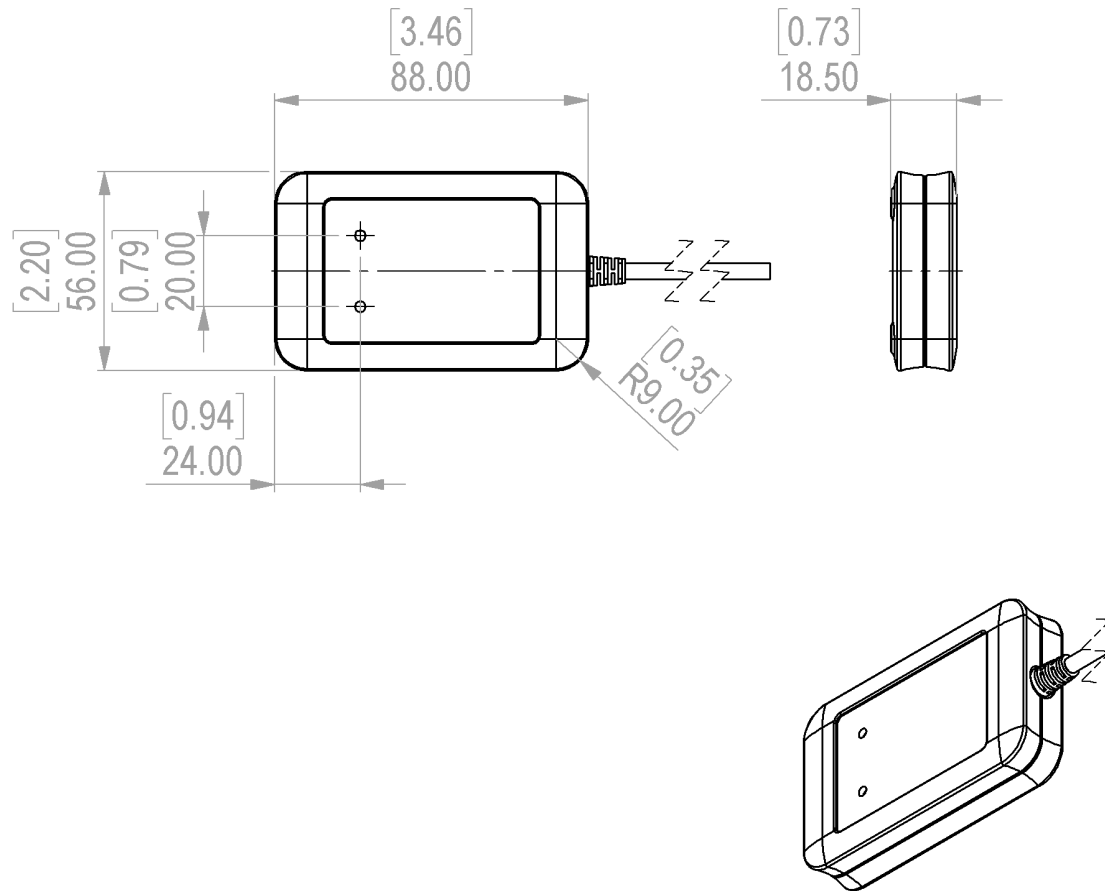
[3]The product has been certified for use in many countries and regions. Contact your Sales representative for detailed information about all certifications and approvals granted to the product.

ORDER CODES	**Readers with LEGIC SM-4200**	
	T4BT-BB2BEL7-XB	Standard reader, USB cable, black housing
	T4BT-BB2WEL7-XB	Standard reader, USB cable, white housing
	T4BT-BR2BEL7-XB	Standard reader, RS-232 cable, black housing
	T4BT-BR2WEL7-XB	Standard reader, RS-232 cable, white housing
	T4BT-BB2BEL7-XBP	Reader with P option, USB cable, black housing
	T4BT-BB2WEL7-XBP	Reader with P option, USB cable, white housing
	T4BT-BR2BEL7-XBP	Reader with P option, RS-232 cable, black housing
	T4BT-BR2WEL7-XBP	Reader with P option, RS-232 cable, white housing
	T4BT-BB2BEL7-XBPI	Reader with PI options, USB cable, black housing
	T4BT-BB2WEL7-XBPI	Reader with PI options, USB cable, white housing
	T4BT-BR2BEL7-XBPI	Reader with PI options, RS-232 cable, black housing
	T4BT-BR2WEL7-XBPI	Reader with PI options, RS-232 cable, white housing
	Readers with LEGIC SM-4500	
	T4BT-BB2BEL7-5XB	Standard reader, USB cable, black housing
	T4BT-BB2WEL7-5XB	Standard reader, USB cable, white housing
	T4BT-BR2BEL7-5XB	Standard reader, RS-232 cable, black housing
	T4BT-BR2WEL7-5XB	Standard reader, RS-232 cable, white housing
	T4BT-BB2BEL7-5XBP	Reader with P option, USB cable, black housing
	T4BT-BB2WEL7-5XBP	Reader with P option, USB cable, white housing
	T4BT-BR2BEL7-5XBP	Reader with P option, RS-232 cable, black housing
	T4BT-BR2WEL7-5XBP	Reader with P option, RS-232 cable, white housing
	The order codes above describe RFID readers equipped with a two-meter-long cable. Contact ELATEC for other cable lengths.	

ACCESSORIES

HOLDERS	HKSI-B	Snap-in holder, black
	HKSI-W	Snap-in holder, white
	HKBR-B	Bracket holder, black
	HKBR-W	Bracket holder, white
POWER SUPPLIES	ELATEC RFID readers and modules can be delivered with additional cables or external power supplies. Refer to the data sheet *Cables for ELATEC devices* for detailed information.	

TECHNICAL DRAWINGS

All measures in mm [inch]