

TWN4 MULTITECH

PROGRAMMABLE RFID READERS/ WRITERS FOR LF, HF, NFC



TWN4 MultiTech

ELATEC's TWN4 family of RFID readers and writers allows users to read and write to almost any 125 kHz and 13.56 MHz tags and/or labels. It supports all major transponders from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, etc. and ISO standards like ISO 14443A/B (T=CL), ISO 15693, ISO 18092 / ECMA-340 (NFC).

The new generation is a direct enhancement to the successful TWN3 family as it comes in the same dimensions. The reader supports host communication via USB.

Special features:

- + 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
- + Direct chip-commands support
- + Two on-board SAM sockets (Secure Access Module)
- + CCID and PC/SC 2.01
- + Dedicated expansion bus for connection of LCD, mass storage, etc.
- + 2 GPIOs
- + Supports Apple VAS and ECP 2.0⁸)
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + TWN4 Upgrade Card for P and PI options available on request
- + 3D construction data (STEP) available on request
- + Available as desktop version



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

FREQUENCY	125 kHz (LF) / 13.56 MHz (HF)
ANTENNA(S)	Integrated
HOUSING	Material: ABS UL94-V0
DIMENSIONS (L X W X H)	TWN4 MultiTech: 88 mm x 56 mm x 18 mm
POWER SUPPLY	4.3 V - 5.5 V via USB or RS-232; RS-232 requires 5 V external power supply; via connector CNB 3.3 V $\pm$ 5% Limited power source according to the safety norms listed in the respective declaration of conformity, short-circuit current < 8 A
CURRENT CONSUMPTION	RF field on: 120 mA typically / Sleep: 500 μ A typ. / Cyclic Operation: TBD
TEMPERATURE RANGE	TWN4 MultiTech, Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) TWN4 MultiTech, Storage: -40 °C up to +75 °C (-40 °F up to +167 °F) TWN4
RELATIVE HUMIDITY	5% to 95% non-condensing
READ- / WRITE DISTANCE	Up to 100 mm / 4 inch, depending on environment and transponder
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	TWN4 MultiTech: approx. 117 g / 4.13 oz (with cable)
SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<u>ISO14443A:</u> LEGIC Advant¹⁾, MIFARE Classic EV1²⁾, MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2³⁾, MIFARE DESFire Light⁴⁾, MIFARE Plus S, X, MIFARE Pro X⁵⁾, MIFARE Smart MX⁵⁾, MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1²⁾, NTAG2xx, SLE44R35⁵⁾, SLE66Rxx (my-d move)⁵⁾, Topaz <u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5, NFC Peer-to-Peer, Sony FeliCa⁶⁾, NFC Active and passive communication mode <u>ISO14443+B:</u> Calypso⁵⁾, Calypso Innovatron protocol⁵⁾, CEPAS⁵⁾, HID iCLASS¹⁾, Moneo⁵⁾, Pico Pass⁷⁾, SRI4K, SRIX4K, SRI512, SRT512 <u>ISO15693:</u> EM4x33⁵⁾, EM4x35⁵⁾, HID iCLASS¹⁾, HID iCLASS SE/SR¹⁾, ICODE SLI, LEGIC Advant¹⁾, M24LR16/64, SRF55Vxx (my-d vicinity)⁵⁾, Tag-it, PicoPass⁷⁾ <u>Mobile support:</u> Apple VAS⁸⁾, ECP 2.0⁸⁾
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ9)	AWID, Cardax, CASI-RUSCO, Deister ¹⁰⁾ , EM4100, 4102, 4200 ¹¹⁾ , EM4050, 4150, 4450, 4550, EM4305 ¹²⁾ , FDX-B13 ³⁾ , EM4105 ¹³⁾ , UltraProx ¹³⁾ , HITAG 1 ¹⁴⁾ , HITAG 2 ¹⁴⁾ , HITAG S ¹⁴⁾ , ICT ⁴⁾ , IDTECK, Isonas, Keri, Miro, Nedap ¹⁰⁾ , PAC ⁴⁾ , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX ¹³⁾ , TITAN (EM4050), UNIQUE, ZODIAC
SUPPORTED TRANSPONDERS (OPTION P)	All Standard Transponders, Cotag, G-Prox ¹⁰⁾ , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch
SUPPORTED TRANSPONDERS (OPTION PI)	Requires TWN4 SIO Card, All Standard Transponders, All Option P Transponders, HID iCLASS, HID iCLASS SE/SR/Elite, HID iCLASS SEOS (Facility Code/PAC) ¹⁵⁾
OS SUPPORT	Windows Embedded CE ⁴⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ⁴⁾ , iOS ⁴⁾ , MAC OS X ⁴⁾
PERIPHERAL INTERFACES	USB, RS-232, TTL serial (logic level 3.3 V, CMOS, 5 V tolerant), I ² C, 2 GPIOs, Clock/Data, Wiegand
TRANSMISSION SPEED	Host: USB Full speed (12 Mbit/s), RS-232: up to 115,200 baud, Air: up to 848 kbit/s
CERTIFICATION NAME	TWN4 MultiTech
CERTIFICATION(S)	TWN4 MultiTech: ACMA, CE/RED, FCC, IC, Apple VAS and ECP 2.0 certified, and many more. Readers are REACH and RoHS-III compliant.

ORDER CODE(S)	TWN4 MultiTech:	
	9500310	USB Option P Black
	9500320	USB Option PI Black

¹UID only ²r/w enhanced security features on request ³EV2/EV3 supported as part of the EV1 downward compatibility ⁴On request ⁵r/w in direct chip command mode ⁶UID + r/w public area ⁷UID only, read/write on request ⁸For Apple licensees only and eligible implementers. Please contact ELATEC for details. ⁹125 kHz technology requires a Russian local test and import license from the ministry of Trade and Industry (MINPROMTORC). This license has to be in place before Elatec can accept any order to be shipped to Russia ¹⁰Hash value only ¹¹Only emulation of 4100, 4102 ¹²From FW V4.05 ¹³134.2 kHz only ¹⁴Without encryption ¹⁵UID + PAC (Facility Code), r/w on request

ACCESSORIES

HOLDER(S)	9000400	Snap-In Holder black	
CABLES	9400134	USB cable type A 45 cm / 17.72 inch	
	9400142	USB cable mini 25 cm / 9.84 inch	