

TWN4 PALON COMPACT LEGIC WALL LIGHT

RFID READER/WRITER SUPPORTING LF, HF AND NFC FOR IN-WALL MOUNT



(exemplary illustration)

TWN4 Palon Compact LEGIC Wall Light is a versatile in-wall mount reader for integration into wall flush mount installation boxes. It supports enhanced interfaces, especially RS-485, and inherits all advantages and integrated tool support of the ELATEC TWN4 family. The IP54 protected housing is easy to install. The standard electric frame design elements make a unique look and feel.

TWN4 Palon Compact LEGIC Wall Light is a multi-technology reader/writer family supporting almost all 125 kHz and 13.56 MHz contactless technologies, including NFC. Integrated antennas for HF and LF allow excellent contactless performance.

Special features:

- + Optimized housing design for easy and fast installation
- + Flexible adoption to 3rd party design frames with 55x55 mm opening, easy to customize
- + Integrated LF and HF antennas
- + One on-board SAM socket (Secure Access Module)
- + Interfaces: RS-485, Wiegand or Clock/Data. OSDP protocol optionally, USB
- + Supports quick (re)configuration over network and over wireless interface with TWN4 CONFIG Card
- + Direct chip-commands support
- + Firmware update in the field possible
- + Powerful SDK for writing apps which are executed directly on the reader
- + On-board 18 kB flash storage, e.g. for storing user accessible non-volatile data
- + TWN4 Upgrade Card for P option available on request
- + 3D construction data (STEP) available on request
- + Individual kits on request



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

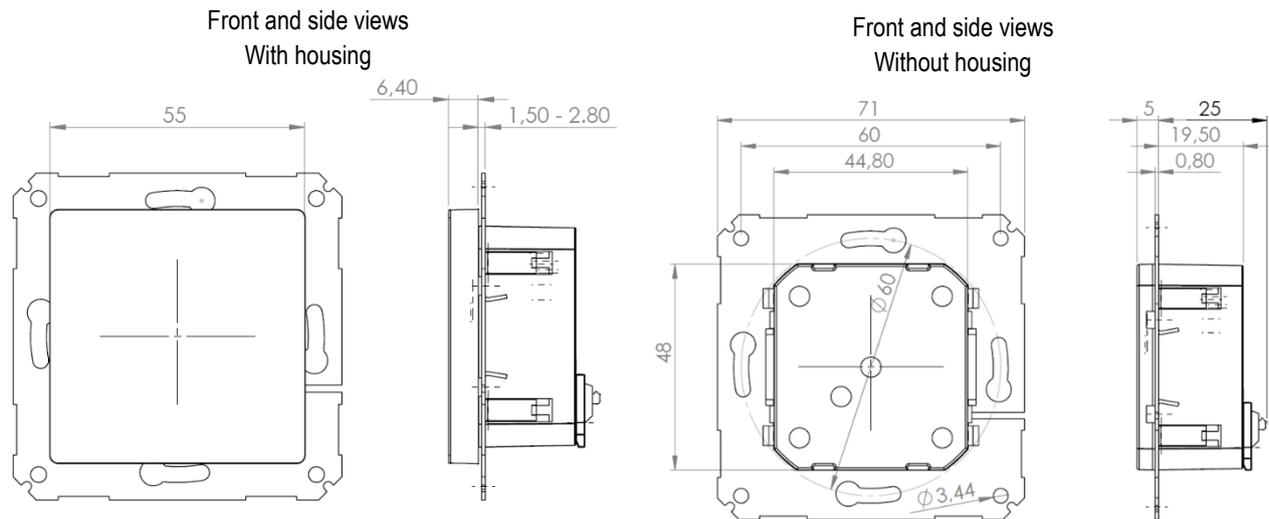
TECHNICAL DATA

FREQUENCY	125 kHz (LF) / 13.56 MHz (HF)
ANTENNA(S)	Integrated
HOUSING	Transparent Polycarbonate (PC) housing; rear protection lid; front lid for 55 x 55 mm (2.17 x 2.17 inch) design frames (3 rd party), including standard inlay white or black, core unit IP54 protected; mounting ring for DIN 49073 flush mount wall boxes
DIMENSIONS (L X W X H)	TWN4 Palon Compact LEGIC Wall Light with front lid and white standard frame: 80.5 mm x 80.5 mm x 36.5 mm (3.17 inch x 3.17 inch x 1.44 inch) TWN4 Palon Compact LEGIC Wall Light with front lid and without frame 71 mm x 71 mm x 32.9 mm (2.80 inch x 2.80 inch x 1.30 inch) TWN4 Palon Compact LEGIC Wall Light without front lid and without frame 71 mm x 71 mm x 30.8 mm (2.80 inch x 2.80 inch x 1.22 inch)
POWER SUPPLY	9.0 V - 30 V via connector X1; 4.3 V - 5.5 V via micro USB Limited power source according to the safety norms listed in the respective declaration of conformity, short-circuit current < 8 A
CURRENT CONSUMPTION	Operating: typ. 160 mA @12 V; Idle: typ. 50 mA @12 V; Peak typ. 250 mA @12 V
TEMPERATURE RANGE	Operating: -25 °C up to +70 °C (-13 °F up to +158 °F) Storage: -40 °C up to +85 °C (-40 °F up to +185 °F)
RELATIVE HUMIDITY	IP54 protected housing (frontside, when mounted) 5% to 95% non-condensing (electronic components)
READ- / WRITE DISTANCE	Up to 100 mm / 4 inch, depending on OEM environment and transponder
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
MTBF	500,000 hours
WEIGHT	Approx. 61.2 g / 2.16 oz
SABOTAGE DETECTION	Infrared tamper detector, front facing
WIRE CONNECTOR	PCB terminal block, 8 positions, push-in spring connection for wires 0.2 to 0.5 mm ² / AWG 24 to 20, tool-free cable wiring
DIP SWITCH	8 position DIP switch for RS-485: addressing, speed settings, line termination
SIGNALING	Center RGB LED; acoustic loudspeaker
SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	<u>ISO14443A:</u> LEGIC Advant, MIFARE Classic EV1 ¹⁾ , MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2 ²⁾ , MIFARE DESFire Light ³⁾ , MIFARE Plus S, X, MIFARE Pro X ⁴⁾ , MIFARE Smart MX ⁴⁾ , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 ¹⁾ , NTAG2xx, SLE44R35 ⁴⁾ , SLE66Rxx (my-d move) ⁴⁾ <u>ISO18092 ECMA-340:</u> NFC Forum Tag 1-5 ⁵⁾ , Sony FeliCa ⁶⁾ , NFC Active and passive communication mode, Passive peer-to-peer mode - initiator, NFC Tag 2, 3, 4 <u>ISO14443B:</u> Calypso ⁴⁾ , CEPAS ⁴⁾ , HID iCLASS ⁷⁾ , Moneo ⁴⁾ , Pico Pass ⁷⁾ <u>ISO15693:</u> EM4x33 ⁴⁾ , EM4x35 ⁴⁾ , HID iCLASS ⁷⁾ , HID iCLASS SE/SR ⁷⁾ , ICODE SLI, LEGIC Advant, M24LR16/64, SRF55Vxx (my-d vicinity) ⁴⁾ , Tag-it, PicoPass ⁷⁾ <u>LEGIC Prime:</u> LEGIC Prime
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ ⁸⁾	AWID, Cardax, CASI-RUSCO, Deister ⁹⁾ , EM4100, 4102, 4200 ¹⁰⁾ , EM4050, 4150, 4450, 4550, EM4305 ¹¹⁾ , FDX-B ¹²⁾ , EM4105 ¹²⁾ , UltraProx ¹²⁾ , HITAG 1 ¹³⁾ , HITAG 2 ¹³⁾ , HITAG S ¹³⁾ , ICT ³⁾ , IDTECK, Isonas, Keri, Miro, Nedap ⁹⁾ , PAC ³⁾ , Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX ¹²⁾ , TITAN (EM4050), UNIQUE, ZODIAC
SUPPORTED TRANSPONDERS (OPTION P)	All Standard Transponders, Cotag, G-Prox ⁹⁾ , HID DuoProx II, HID ISO Prox II, HID Micro Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch
OS SUPPORT	Windows Embedded CE ³⁾ , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android ³⁾ , iOS ³⁾ , MAC OS X ³⁾
PERIPHERAL INTERFACES	USB, RS-485, OSDP ³⁾ , Output 5V: Wiegand (D0/D1), or Clock/Data
TRANSMISSION SPEED	HF Air: up to 848 kbit/s, USB Full speed (12 Mbit/s), Host RS-485: up to 38,400 baud

EXTENSION SLOT	One SAM socket for ID-000 cards or modules
CERTIFICATION NAME	TWN4 Palon Compact LEGIC Wall Light
CERTIFICATION(S)	CE/RED, FCC, IC, REACH and RoHS-III compliant
ORDER CODE(S)	<p>Box kit: TWN4 Palon Compact LEGIC Wall Light reader in transparent housing, rear protection lid, white standard frame, white front lid, white inlay standard inlay, installation instruction, mounting screws, cardboard box</p> <p>T4WK-B01EU6 TWN4 Palon Compact LEGIC Wall Light kit, as described T4WK-B01EU6-P same, option P</p> <p>*Individual kits available on request</p>
ACCESSORIES	<p>MECH-DFW21 Palon Wall design frame white MECH-DFW22 Palon Wall design frame anthracite MECH-DFW23 Palon Wall design frame silver HOWL-YC1TR Palon Wall transparent housing HOWL-RL1TR Palon Wall rear lid MECH-MRW1EU Palon Wall EU mounting ring HOWL-FL1BL Palon Wall front lid black HOWL-FL1WH Palon Wall front lid white CAB-B9 USB A / USB micro cable</p>

¹r/w enhanced security features on request ²EV2/EV3 supported as part of the EV1 downward compatibility ³On request ⁴r/w in direct chip command mode
⁵NFC Forum Tag 1 not supported ⁶UID + r/w public area ⁷UID only ⁸125 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 ⁹Hash value only ¹⁰Only emulation of 4100, 4102 ¹¹From FW V4.05 ¹²134.2 kHz only ¹³Without encryption

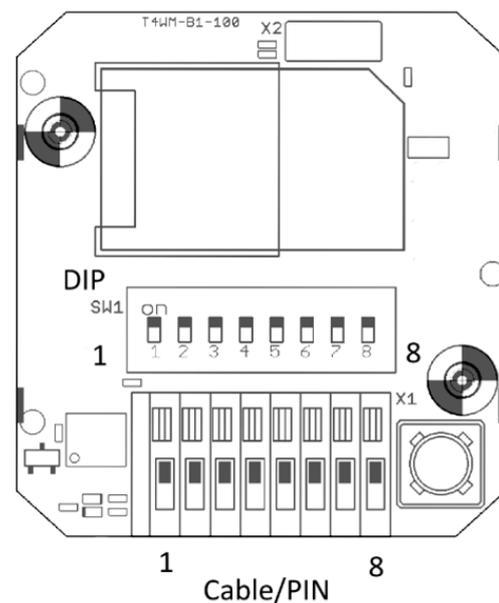
DRAWING / CONNECTOR ASSIGNMENT



(All measures in mm)

DIP	ASSIGNMENT
1	RS-485 address 0 LSB
2	RS-485 address 1
3	RS-485 address 2
4	RS-485 address 3 MSB
5	RS-485 BIAS on/off
6	RS-485 speed 0
7	RS-485 speed 1
8	RS-485 termination 120 Ohm on/off

PIN	ASSIGNMENT
1	(unused)
2	(unused)
3	RS-485 A
4	RS-485 B
5	TTL Wiegand D0 or DATA
6	TTL Wiegand D1 or CLOCK
7	VIN 9 – 30 Volt
8	GND



Drawing / rear view PCB

Firmware may change the assignment of the DIP switch. Please refer to the TWN4 Palon manual.

For Wiegand, Clock/Data the DIP switch is not used.

ELATEC GmbH
 Zeppelinstr. 1
 82178 Puchheim
 Germany
 P +49 89 552 9961 0
 F +49 89 552 9961 129
 E-Mail: info-rfid@elatec.com
 Website: elatec.com

ELATEC Systems GmbH
 Schwieberdinger Str. 44
 71636 Ludwigsburg
 Germany
 P +49 7141 309736 0
 E-Mail: info-rfid@elatec.com
 Website: elatec.com

ELATEC Inc.
 1995 SW Martin Hwy
 Palm City • FL 34990
 USA
 P +1 772 210 2263
 F +1 772 382 3749
 E-Mail: americas-info@elatec.com
 Website: elatec.com

ELATEC Technology (Shenzhen) LLC
 918, Main Building, Tian An Cyber Times
 Tower, No. 6, Tairan Fourth Road, Tian'an
 Community, Shatou Neighborhood
 Futian District • Shenzhen • China
 P/F +86 755 2394 6014
 E-Mail: apac-info@elatec.com
 Website: elatec.com

ELATEC reserves the right to change any information or data in this document without prior notice. ELATEC declines all responsibility for the use of this product with any other specification but the one mentioned above. Any additional requirement for a specific customer application has to be validated by the customer himself at his own responsibility. Where application information is given, it is only advisory and does not form part of the specification. Disclaimer: All names used in this document are registered trademarks of their respective owners.