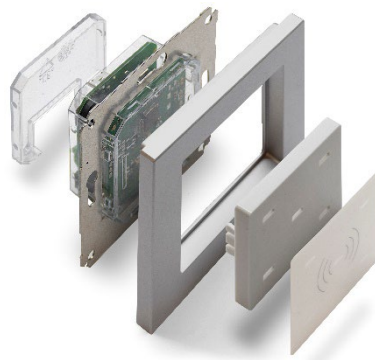


TWN4 Palon Compact Wall

Multi-frequency RFID reader (LF/HF/NFC/BLE) for in-wall mounting



TWN4 Palon Compact Wall
(exemplary illustration)

The RFID readers and modules of the TWN4 Palon Compact family support two RFID frequencies (125 kHz / 13.56 MHz), NFC and Bluetooth Low Energy (BLE). All devices are available with an NXP or LEGIC SM-4200 frontend and support a wide range of interfaces, for instance USB, RS-485 and, optionally, the OSDP protocol. A cost-optimized “light” variant with fewer interfaces and without BLE is also available. Although the readers are general-purpose devices, they are particularly appropriate for time attendance and access control. Depending on the intended application, the readers are available as modules for integration into a host device, as panel mount readers with IP65 protection or as in-wall readers with an IP54 protected housing.

Key features of the TWN4 Palon Compact Wall reader include a customizable, easy-to-install housing with IP54 protection, flexible mounting options to 3rd party design frames (55 x 55 mm opening), the possibility to use many different interfaces, and an integrated 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
- + Supports many interfaces, like USB, RS-485 and RS-232 (OSDP protocol optionally)
- + Two RFID frequencies (125 kHz/13.56 MHz), NFC and BLE support
- + 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
- + Customizable and optimized housing design for easy and quick installation
- + IP54 protected housing for flexible adoption to 3rd party design frames with 55 x 55 mm opening



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

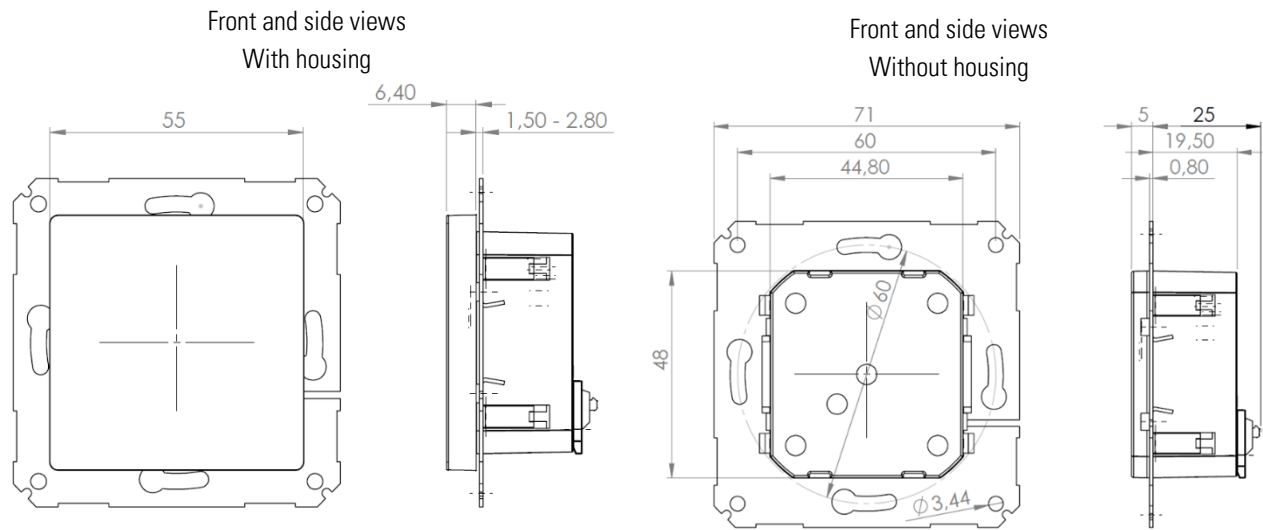
FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF) / 2.4 GHz (BLE)
ANTENNAS	Integrated
HOUSING	Transparent polycarbonate (PC) housing, rear protection lid, front lid for 55.00 x 55.00 mm (2.17 x 2.17 inch) design frames (3 rd party), including standard inlay white or black, core unit IP54 protected, mounting ring for DIN 49073 flush mount wall boxes
DIMENSIONS (L X W X H)	<p>Reader with front lid and white standard frame: Approx. 80.50 x 80.50 x 36.50 mm / 3.17 x 3.17 x 1.44 inch</p> <p>Reader with front lid and without frame: Approx. 71.00 x 71.00 x 32.90 mm / 2.80 x 2.80 x 1.30 inch</p> <p>Reader without front lid and without frame: Approx. 71.00 x 71.00 x 30.80 mm / 2.80 x 2.80 x 1.22 inch</p>
POWER	<p>Micro USB: 4.3 V – 5.5 V</p> <p>Connector X1: 9.0 V – 30 V</p> <p>ES1/PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A</p>
CURRENT CONSUMPTION	Operating: 160 mA @ 12 V typically / Idle: 50 mA @ 12 V typ. / Peak: 250 mA @ 12 V typ.
TEMPERATURE RANGE	<p>Operating: -25 °C up to +70 °C (-13 °F up to +158 °F)</p> <p>Storage: -40 °C up to +85 °C (-40 °F up to +185 °F)</p>
RELATIVE HUMIDITY	<p>IP54 protected housing (frontside, when mounted)</p> <p>5% to 95% non-condensing</p>
READ/WRITE DISTANCE	<p>LF and HF: up to 100 mm / 4 inch, depending on environment and transponder</p> <p>BLE: up to several meters/feet</p>
OPERATING MODES (USB)	USB keyboard emulation – USB virtual COM port – CCID / PC/SC 2.01
BLUETOOTH LOW ENERGY	BLE version 4.2 (upgradable)
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	<p>5 RGB LEDs, each individually programmable using the on-board Intelligent Peripheral Extension (IPE), for enhanced dynamic light concepts</p> <p>Acoustic loudspeaker</p>
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	Micro USB, RS-485, OSDP ¹⁾ , RS-232 (RX/TX), 1 SAM slot for ID-000 card format, output 5V: Wiegand D0/D1, Clock/Data
TRANSMISSION SPEED	<p>USB full speed (12 Mbit/s), RS-232: up to 115,200 baud, HF Air: up to 848 kbit/s,</p> <p>BLE Air: up to 100 kbit/s, RS-485: up to 38,400 baud</p>
CERTIFICATION NAME	TWN4 Palon Compact Wall
CERTIFICATIONS	<p>Non-exhaustive list²⁾:</p> <p>CE/RED, FCC, IC, TAA compliant, REACH and RoHS-III compliant</p>

¹⁾On request

²⁾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	Kits¹⁾ in cardboard box packaging	
	T4WK-F01EU7	Standard reader
	T4WK-F01EU7-P	Reader with P option
	T4WK-F01EU7-PI	Reader with PI options
	Individual kits are available on request.	
<p>¹⁾All standard TWN4 Palon Compact Wall kits are delivered with a reader module in a transparent housing, a rear protection lid, a white standard frame, a white front lid, a white standard inlay, installation instructions and mounting screws.</p>		
ACCESSORIES	HOWL-FL1BL	Palon Wall front lid black
	HOWL-FL1WH	Palon Wall front lid white
	HOWL-RL1TR	Palon Wall rear lid
	HOWL-YC1TR	Palon Wall transparent housing
	MECH-DFW21	Palon Wall design frame white
	MECH-DFW22	Palon Wall design frame anthracite
	MECH-DFW23	Palon Wall design frame silver
	MECH-MRW1EU	Palon Wall EU mounting ring
CABLES	ELATEC RFID modules can be delivered with additional cables. Refer to the data sheet <i>Cables for ELATEC devices</i> for detailed information.	

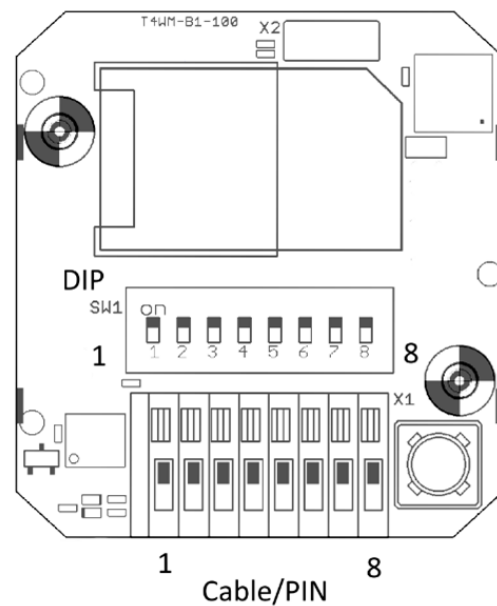
DRAWING / CONNECTOR ASSIGNMENT



(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	RS-232 RX
2	RS-232 TX
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 RS-232, Wiegand, Clock/Data the DIP switch is not used.

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