

# TWN4 PALON COMPACT LEGIC PANEL LIGHT

## RFID READER/WRITER SUPPORTING LF, HF AND NFC FOR PANEL MOUNT



(exemplary illustration)

TWN4 Palon Compact LEGIC Panel Light is a versatile panel mount reader for integration into third-party products and devices. It supports enhanced interfaces, especially RS-485, and inherits all advantages and integrated tool support of the ELATEC TWN4 family. The IP65 protected housing is easy to install.

TWN4 Palon Compact LEGIC Panel 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, fast and secure installation
- + 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







































#### TECHNICAL DATA

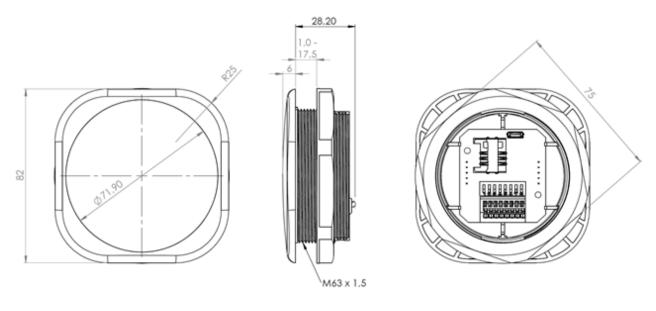
| TECHNICAL DATA   |  |  |  |
|--|--|--|--|
| FREQUENCY  | 125 kHz (LF) / 13.56 MHz (HF)  |  |  |
| ANTENNA(S)   | Integrated   |  |  |
| HOUSING  | Transparent Polycarbonate (PC) housing, black PC outer mounting ring. TWN4 Palon Compact LEGIC M Light reader module pre-installed. ABS locknut M63 x 1.5, black or grey, pre-installed design inlay (customizable). For mounting hole diameter 63.2 mm with anti-twist protection   |  |  |
| DIMENSIONS (L X W X H)                                     | 82 mm x 82 mm x 34.2 mm / 3.23 inch x 3.23 inch x 1.35 inch  |  |  |
| POWER  | 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 +80 °C (-13 °F up to +176 °F) Storage: -40 °C up to +85 °C (-40 °F up to +185 °F)  |  |  |
| RELATIVE HUMIDITY  | IP65 protected housing (frontside, when mounted) 5% to 95% non-condensing (inner 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 (electronic components)  |  |  |
| WEIGHT   | Approx. 77 g / 2.72 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 mm² / 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<br>(STANDARD) 13.56 MHZ             | ISO14443A: LEGIC Advant, MIFARE Classic EV1¹), MIFARE Classic, MIFARE Mini, MIFARE DESFire EV1, MIFARE DESFire EV2²), MIFARE DESFire Light³), MIFARE Plus S, X, MIFARE Pro X⁴), MIFARE Smart MX⁴), MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1¹), NTAG2xx, SLE44R35⁴), SLE66Rxx (my-d move)⁴) ISO18092 ECMA-340: NFC Forum Tag 1-5⁵), Sony FeliCa⁶), NFC Active and passive communication mode, Passive peer-to-peer mode - initiator, NFC Tag 2, 3, 4 ISO14443B: Calypso⁴), CEPAS⁴), HID iCLASS⁻), Moneo⁴), Pico Pass⁻) ISO15693: EM4x33⁴), EM4x35⁴), HID iCLASS⁻), HID iCLASS SE/SR⁻), ICODE SLI, LEGIC Advant, M24LR16/64, SRF55Vxx (my-d vicinity)⁴), Tag-it, PicoPass⁻) LEGIC Prime: LEGIC Prime  AWID, Cardax, CASI-RUSCO, Deisterց), EM4100, 4102, 4200¹⁰), EM4050, 4150, 4450, |  |  |
| SUPPORTED TRANSPONDERS<br>(STANDARD) 125 KHZ <sup>8)</sup> | 4550, EM4305 <sup>11</sup> ), FDX-B <sup>12</sup> ), EM4105 <sup>12</sup> ), UltraProx <sup>12</sup> ), HITAG 1 <sup>13</sup> ), HITAG 2 <sup>13</sup> ), HITAG S <sup>13</sup> ), ICT <sup>3</sup> ), IDTECK, Isonas, Keri, Miro, Nedap <sup>9</sup> ), PAC <sup>3</sup> ), Pyramid, Q5, T5557, T5567, T5577, TIRIS/HDX <sup>12</sup> ), TITAN (EM4050), UNIQUE, ZODIAC   |  |  |
| SUPPORTED TRANSPONDERS                                     | All Standard Transponders, Cotag, G-Prox <sup>9</sup> ), HID DuoProx II, HID ISO Prox II, HID Micro  |  |  |
| (OPTION P)   | Prox, HID ProxKey III, HID Prox, HID Prox II, Indala, ioProx, Nexwatch   |  |  |
| OS SUPPORT   | Windows Embedded CE <sup>3)</sup> , 7 (32-/64-bit), 8, 8.1, 10, Linux, Android <sup>3)</sup> , iOS <sup>3)</sup> , MAC OS X <sup>3)</sup>  |  |  |
| PERIPHERAL INTERFACES TRANSMISSION SPEED                   | USB, RS-485, OSDP <sup>3</sup> ), Output 5V: Wiegand (D0/D1), or Clock/Data  HF Air: up to 848 kbit/s,  USB Full speed (12 Mbit/s),  |  |  |
| TO ANOMICOION OF ELD                                       | RS-485: up to 38,400 baud  |  |  |
| EXTENSION SLOT   |  |  |  |



| CERTIFICATION(S)   | CE/RED, FCC, IC, REACH and RoHS-III compliant, and many more  |   |  |  |
|--|---|---|--|--|
| ORDER CODE(S)  | Box kit:  TWN4 Palon Compact LEGIC M Light reader module in transparent housing, black outer mounting ring, locknut, O ring seal, standard inlay, installation instruction, cardboard box |   |  |  |
|  | T4PK-B02TR6<br>T4PK-B02TR6-P  | TWN4 Palon Compact LEGIC Panel Light kit, as described same, option P |  |  |
| PACKAGE CONTENTS MECH-LNB01 Locknut MECH-ORB01 O-ring seal |   |   |  |  |

¹¹r/w enhanced security features on request ²¹EV2/EV3 supported as part of the EV1 downward compatibility ³¹On request ⁴¹r/w in direct chip command mode ⁵¹NFC Forum Tag 1 not supported ⁵¹UID + r/w public area ¹¹UID only ³¹125 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 ¹³⟩Hash value only ¹¹³⟩Only emulation of 4100, 4102 ¹¹⟩From FW V4.05 ¹²⟩134.2 kHz only ¹³⟩Without encryption

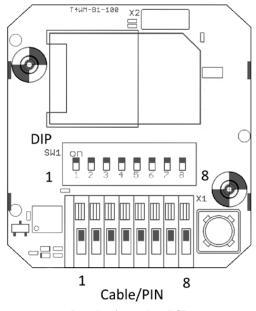




(All measures in mm)

| 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.

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