

# RFID Readers -TWN3 Family

## 125kHz or 13.56MHz Contactless Readers/Writers



The family of TWN3 RFID transponder readers is designed for easy integration into various applications. It supports all major transponders from various suppliers like ATMEL, EM, ST, NXP, TI, HID, LEGIC, INSIDE etc. and ISO standards like ISO14443A including ISO14443A-4 (T=CL), ISO14443B including ISO14443B-4 (T=CL), ISO15693, ISO18092 / ECMA-340 (NFC), ISO18000-3.

In order to achieve a maximum of flexibility, it is based on a modular design and combines a state-of-the-art reading performance. The device supports either USB or RS232 communication just in dependence on the connection cable. The family of TWN3 transponder readers is available in seven different versions: Each version as ready-to-connect desktop reader in a slim line black or white housing or as a OEM board (PCB) without housing for direct integration into embedded applications.

Secure Access Module (SAM) is supported to enhance the security and cryptography performance in some readers to perform secure transactions, e.g. for paying terminals etc.

Readers can be programmed with a script language for autonomous execution of even complex commands like login procedures, credit/debit functions and many more.

Worldwide certifications for worldwide sales:


WEEE, RoHS, R&TTE, CE (Europe),

FCC (USA), IC (Canada), ACA (Australia / New Zealand), VCCI (Japan), SRRC (China)

Technical Data							
	TWN3 HID Prox	TWN3 Multi125	TWN3 Inditag	TWN3 Mifare	TWN3 Multi ISO	TWN3 HID iClass	TWN3 Legic
Housing	Material ABS UL94-V0, colour black or white						
Frequency	125 kHz			13.56 MHz			
Dimensions	Desktop Reader: 88mm x 56mm x 18mm / 3.5inch x 2.2inch x 0.7inch OEM Board: 76mm x 49mm x 14mm / 3.0inch x 1.9inch x 0.6inch						
Power Supply	5V ± 10% via communication cable (USB); serial version requires external power supply						
Supply Current	50mA typ. 140mA max.	130mA typ. 220mA max.	160mA typ. 220mA max.	55mA typ. 120mA max.	110mA typ. 180mA max.	220mA typ. 250mA max.	75mA typ. 280mA max.
Temperature Range	Storage: -45°C up to +85°C (-49°F up to 185°F) Operating: -25°C up to +80°C (-13°F up to 176°F) <sup>1)</sup>						
Antenna	Aircoil			PCB Aircoil			
R/W Distance	up to 100mm / 4inch (depending on transponder)						
Host Interface	USB or RS232, the OEM board supports both interfaces						
OS Support	Windows Vista, XP, 7 (32-/64-bit) and Linux						
Communication Parameters	USB: Full speed (12 MBit) RS232: 9600 Baud, 8N1 (Default)						
Modes of Operation	USB keyboard emulation USB virtual COM port (bi-directional communication) Direct access to built-in RFID module (transparent mode)						
Special Features	The TWN3 family of transponder readers supports standalone operation, which can be widely influenced by Elatec's versatile scripting language. Multi ISO includes socket for SAM Module.						
Supported Transponders	HID Prox	EM4102 EM4105 EM4200 EM4150 EM4350 EM4450 FDX-B HITAG 1 HITAG 2 HITAG S MIRO Q5 T5557 T5567 T5577 TITAN UNIQUE ZOODIAC	Indala Flexpass	ISO14443A Mifare - Classic 1k, 4k - DESfire EV1 <sup>3)</sup> - Mini - Plus S <sup>2)</sup> , X <sup>2)</sup> - Pro X <sup>3)</sup> - SmartMX <sup>3)</sup> - Ultralight - Ultralight C <sup>4)</sup> Legic Advant <sup>3)</sup> SLE44R35 SLE66Rxx	ISO14443A Mifare - Classic 1k, 4k - DESfire EV1 - Mini - Plus S, X - Pro X - SmartMX - Ultralight, Ultralight C Legic Advant <sup>3)</sup> SLE44R35, SLE66Rxx my-d move ISO14443B Calypso, CEPAS Moneo SRI512, SRT512 SRI4K, SRIX4K ISO15693 EM4033, EM4233 EM4135, ICODE SLI Inside Picopass <sup>3)</sup> HID iClass <sup>3)</sup> , Tag-it Legic Advant <sup>3)</sup> , my-d	HID iClass ISO14443A <sup>3)</sup> ISO14443B <sup>3)</sup> ISO15693 <sup>3)</sup>	Legic Advant Legic Prime ISO14443A <sup>3)</sup> ISO15693 <sup>3)</sup>
Order Code	ART11048	ART11046	ART12154	ART11050	ART12441	ART11047	ART11049
OEM board							
Desktop reader							
USB black	ART11229	ART11241	ART12469	ART11223	ART12442	ART11235	ART11247
USB white	ART11230	ART11242	ART12161	ART11224	ART12443	ART11236	ART11248
Serial black	ART12457	ART12455	ART12459	ART12461	ART12463	ART12465	ART12467
Serial white	ART12458	ART12456	ART12460	ART12462	ART12464	ART12466	ART12468

<sup>1)</sup> Operating temperature TWN3 HID Prox and TWN3 HID iClass: -25°C up to +65°C (-13°F up to 150°F)

<sup>2)</sup> Support of security level 1 <sup>3)</sup> UID only <sup>4)</sup> without crypto

Accessories				
Order Code	ART13512	ART11493	ART12240	ART13456
Description	Snap-in holder with double sided adhesive pads for easy fixation of TWN3 desktop readers 	USB Type A Cable for TWN3 OEM PCB, 2.0m ART13891: Multi ISO	RS232 DSUB 9 DC cable for TWN3 OEM PCB, 2.0m ART13892: Multi ISO	5V Power Supply, 6W wall adapter for TWN3 (RS232)

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