





**Reading from your hand:
INTUS 1600PS palm vein reader**

- Highly secure for your access control system.
- Simple in operation, easy to use.
- Attractive in design.
- Supports integration with your existing infrastructure.

INTUS

With remarkable features like this, the INTUS 1600PS palm vein reader presents itself as a state-of-the-art solution in the distinctive styling of the INTUS product range.

- It provides highest security based on PalmSecure palm vein recognition technology and can be combined with advanced RFID readers as well as PIN code entry.
- The new MagicEye ensures simple and intuitive operation. The user briefly presents his or her hand to the sensor. The system then decides who will be granted, or refused, access. With the utmost precision.
- As the latest member of the award-winning INTUS family, the INTUS 1600PS perfectly supplements RFID and fingerprint readers for high-security applications.
- The INTUS 1600PS is fully integrated with the INTUS range and can be incorporated into other infrastructures via standard interfaces.



Palm vein authentication is a user-friendly and robust process. Complexion, soiled skin, impurities, pigmented moles, or superficial injuries have no effect on the recognition result. The palm vein pattern remains the same whether it's warm or cold. And the contactless identification process ensures maximum hygiene. The INTUS 1600PS can be used in conjunction with conventional RFID access readers or PIN keypads to set up an access control system for high-security areas.

Maximized security.

FAR* = 0.000 08%. An impressive level of security comparable to that of iris recognition, based on the highly complex vein pattern in the palm of the hand. Excellently suited for the unique identification of persons, this internal biometric feature provides optimum protection against tampering.



1600 PS

Palm vein authentication is based on the absorption of infrared radiation (heat radiation) in venous blood. A sensor illuminates the palm with infrared light. Oxygen-reduced blood in the veins absorbs the infrared rays. The sensor camera captures an image of the individual's vein pattern and converts it to a template. The template is encrypted by the sensor and then saved to a database (for identification) or to a card or tag (for verification using "template on card").

For high-security applications at data processing centers, power plants, boardrooms or at financial service providers, the INTUS 1600PS reader is equipped with state-of-the-art RFID technology such as Mifare DESFire EV1 for verification and additionally provides a PIN keypad for users who don't want to invest in card management.

*FAR = False Acceptance Rate: a measure of the likelihood of access being granted to unauthorized persons



Sensor transmits infrared radiation to the hand, venous blood absorbs infrared rays



Sensor camera captures image (5 MB)



Software generates template (0.8/3 kB)



Template is stored (database/card/tag)

Comfort and ergonomics for high user acceptance.

As all INTUS terminals, the INTUS 1600PS reader is designed for maximum user comfort. Just hold your hand in front of the reader – the MagicEye will turn “Green”, signal “Identification OK”, and the door will open. Ease of use makes for high user acceptance. And access control cannot be any easier than that.

The MagicEye has received a distinctive new styling in the INTUS 1600PS and clearly signals the system status: “Reading template on access card”, “Identification OK, but currently no access authorization”, “Access granted”, “Hand too close to reader”, etc.

The scanning process is fully hygienic as the sensor never comes into contact with the biometric feature. Optionally, the reader can be equipped with a handrest. This is particularly recommended for the enrollment process at a training station.



Connectivity for INTUS and many other systems.

The INTUS 1600PS palm vein reader is equipped with three interfaces for easy integration with an access control system:

- The LBus is used to connect the device to INTUS installations (similar as with all other INTUS readers). In this case, the download of templates is handled via an Ethernet interface.
- Third-party access control managers can connect to the INTUS 1600PS via the widely used Wiegand interface. INTUS 1600PS behaves just like a standard Wiegand reader.
- OEM partners have the option to connect the palm vein authentication system directly via Ethernet.

An INTUS 1600PS reader in an unsecured area connects to the INTUS PS Controller via a Cat 5 cable with a maximum length of 100 m providing sufficient leeway even under difficult installation conditions. A Cat 5 cable also supplies the INTUS 1600PS reader with power so that there is no need for complicated additional power cabling.



1600 PS



Technical data

INTUS 1600PS palm vein reader

Sensor

- Fujitsu PalmSecure™ sensor
(BSI certified for Common Criteria Level 2)
- Extremely high precision and security:
FAR (False Acceptance Rate): 0.000 08%,
FRR (False Rejection Rate): 0.01%
- Distance from sensor to hand: 3...8 cm
- Template size 0.8/3 kB

INTUS 1600PS reader

- Polycarbonate dome
protecting the PalmSecure sensor
- MagicEye indicator (RGB LED's)
- PIN keypad and RFID reader
(Mifare DESFire EV1, Legic advant)
- Connection to INTUS PS Controller via Cat-5
(up to 100 m) or USB (up to 5 m)*
(Two INTUS PS reader to one INTUS PS controller
as an option.)
- Connection to access control manager via LBus,
Wiegand, clock/data or Ethernet*
- Power supply through INTUS PS Controller
via USB or Cat-5 ("Power over Cat-5")
- Degree of protection: IP30, as option IP54
- Tamper contact, lock
- Temperature range: +5°C to +40°
- Surface-mounted housing
(300 mm high x 140 mm wide x 71 mm deep)
- Color: white aluminum frame (similar to RAL 9006),
film and back NCS 8005-R80B

*depending on the model

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PCS Systemtechnik GmbH
Pfaelzer-Wald-Str. 36
81539 Munich
Fon +49-89-68004-550
intus@pcs.com

Ruhrallee 311
45136 Essen
Fon +49-201-89416-0

Hofzeile 24
1190 Vienna
Fon +43-1-3670-302

www.pcs.com



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