

## Hitachi M-1 Finger Vein Reader

### Technical Data

#### **Device Characteristics**

##### **Capture System**

Infra-red light transmission, side illumination

##### **Accuracy**

False Acceptance Rate (FAR): 0.0001%

False Rejection Rate (FRR): 0.01%

Failure to Enroll Rate (FTE): 0.08%

(FAR/FRR: JIS testing; FTE: IBG test)

##### **Templates**

Approx 500 bytes per template  
Internal flash storage (512kB)  
or external server or card

##### **Matching**

1:1 or 1:N (N up to 1000)

##### **Controller**

Rabbit 3000 8 bit Micro at 44.2 MHz  
1 MB SRAM, Expandable to 8MB

#### **Physical Specifications**

##### **Dimensions**

100(W) x 200(D) x 80(H) mm (approx)

##### **Weight**

0.5 Kg

##### **Power**

External 12V 1A input jack socket  
Mid-span and End-span PoE ready  
Fully isolated PoE power supply

##### **Environmental Conditions**

Ambient temperature: 5 – 45 °C  
Avoid direct sunlight

#### **System Interfaces**

##### **Ethernet**

10/100Base-T RJ45 connector

Multiple Web page capable

Security: SSL v.3 and TLS v.1

##### **Other ports**

1 x Wiegand 26 Bit

1 x RS 232 [screw terminal]

2 x open-collector output drives for low power relays or bezels

2 x protected 3-12 volt capable inputs for external switch detection

##### **Storage**

FAT filesystem in 8MB extended memory

#### **User Interface Options**

##### **Pin-pad**

Vandal/waterproof keypad

Variable matrix up to 16 keys

##### **Display**

Display: 128x22 pixels in orange

4 bit "grey-scale"

Optional sounder

##### **Contact-less Smartcard reader**

ISO 14443 type A or B

Can be fitted behind keypad

Range up to 15cm dep. on card antenna

Mifare or HID iClass 13.56MHz

64-bit RF encryption and authentication

##### **Contact Smartcard reader**

ISO 7816 [1,2,3,4]

Can be fitted in place of display