



## Stainless Steel Housing

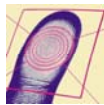
ตัวถังและปุ่มกดทำจากสแตนเลสสตีล แข็งแรงทนทานสูง สามารถใช้ได้ทั้งลายนิ้วมือ บัตรทาบบัตรบาร์โค้ด และรหัสผ่าน ได้รับการสนับสนุนจากกรมส่งเสริมอุตสาหกรรม

### M05-F Series Fingerprint Time Attendance

- 1:1 Verification and 1: N Identification
- Stainless Steel (304) Housing
- Stainless Steel Key pad
- Heavy Duty Designed
- Water splash proof designed
- Barcode and Proximity (option)

### Key Features

#### Fingerprint



#### ID + Password



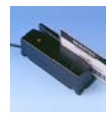
#### Key Tag



#### Proximity



#### Barcode



- 1:1 Verification and 1: N Identification
- Identification Method: by PIN Key (default)
- 125KHz Proximity (EM, HID option) / PIN and Fingerprint Recognition
- Options: 500 / 1,000 / 2,000 / 4,000 / 9,000 Fingerprint Users, Supervisory Signal
- ID only Function for Fingerprint Unregisterable Person (Password require)
- Network Communication via RS232 / RS422 / RS485
- TCP/IP (by External LAN Converter TC-L)
- 26bit Wiegand (26 bit standard, custom, and passthrough format ) for other Access Control
- Current Time Display on the LCD
- High Protection from Scratch and ESD (Electro Static Discharge)
- High Quality Optical Sensor and Fingerprint Processor
- 1 Tamper Switch (Dry contact C, NO, NC)
- 1 Exit Switch input port and 1 Relay output for Access Control Application (non time zone)
- Water splash proof designed
- Software Fingerprint user management and attendance Report
- Attendance data can be export to text for other Time attendance and payroll software

### Applications

- Time attendance and access control for offices
- Integrated payroll and HR management
- Networked security for IBS buildings, financial and research institutes
- Data collection terminal for customer reward management



### Comparison Table

Model	Sensor Type	Operation Mode
M04-FO	Optical	Fingerprint only / ID + Fingerprint / ID NO. + Password (4 digit)
M04-FO-B		Fingerprint only / Barcode + Fingerprint / ID NO. + Fingerprint / Barcode + Password / ID NO. + Password (Password = 4 digit)
M04-FO-P		Fingerprint only / RF + Fingerprint / ID NO. + Fingerprint / RF + Password / ID NO. + Password (Password = 4 digit)
M04-FS	Atmel Thermal Swipe Type	Fingerprint only / ID NO. + Fingerprint / ID NO. + Password (4 digit)
M04-FS-B		Fingerprint only / Barcode + Fingerprint / ID NO. + Fingerprint / Barcode + Password / ID NO. + Password (Password = 4 digit)
M04-FS-P		Fingerprint only / RF + Fingerprint / ID NO. + Fingerprint / RF + Password / ID NO. + Password (Password = 4 digit)

**Specifications**

Model		M04-FO	M04-FO-B	M04-FO-P	M04-FS	M04-FS-B	M04-FS-P
CPU		32bit 400 MHz DSP and 16bit 18MHz MCU					
Memory	Fingerprint Data Memory	4MB Flash Memory (8MB Option)					
	Record / log event	12,800 record					
Fingerprint User		500 / 1,000 / 2,000 / 4,000 / 9,000					
Fingerprint Templates Size		384 Bytes / Fingerprint Templates					
RF Reader	EM or HID compatible			5-15 CM			5-15 CM
Barcode Reader	3of9 numeric barcode		Yes			Yes	
1: 1 Verification Time		800 ms					
1 : 1,000 Identification Time*		970 ms					
Power / Current		DC 7.5 - 12V / Max.300mA					
Communication		RS232 / RS422 / RS485 (Max.255ch), TCP/IP (By Ethernet to serial)					
Baud Rate		9,600bps, 19,200bps and 38,400bps, 57600bps, 115,000bps					
Input Port		1 ea Push button exit switch					
Output Port		2ea Door relay and Tamper output					
Output Format		26bit Wiegand (26 bit standard, custom, and passthrough format )					
LCD		Character LCD (2 Lines x 16 Char)					
Keypad		12 Key Numeric Keypad Stainless steel /w weather proof					
LED Indicator / Beeper		2 Array LED Indicators (Red and Green) / Piezo Buzzer					
Operating Temperature	Fingerprint Module / LCD	0 to +60°C					
	Controller / RF Reader	0 to +70°C					
Operating Humidity		10% to 90% relative humidity non-condensing					
Material		Housing : Stainless Steel (Grade 304) / Sensor Housing : ABS plastics					
Dimension (W x H x T) / Weight		203 x 145 x 45.(mm) / 950g					
Fingerprint module Certification		FVC2004, FVC2006 No.1 Fingerprint recognition algorithm					

\* average 1:1,000 genuine identification time including feature extraction time

**Fingerprint Module Specifications**

Sensor Type	Optical	Atmel Swiping Thermal
CPU	400 MHz DSP	
Flash memory	4 MB for 9,000 template, 8MB for 19,000 template	
Resolution	500dpi	
Extraction Image Size	280 x 320 (pixel)	280 x 8 (pixel)
Fingerprint template size	384 byte	384 byte
Sensing Area	16.0 x 19.0 (mm)	14 x 0.4 (mm)
Scanner	High Quality Optical Sensor	Swipe type thermal fingerprint sensor
FAR (False Acceptance Ratio)	<0.01%	

**Dimensions**

