

# Reach DCS - BioReaderMPFQ

## All Weather Outdoor Multi-tech Smart Standalone Terminal



- Multi-Biometric technology combining palm and face recognition
- IP66 water & dustproof protection rating
- Slim design & form factor for a modern aesthetic design
- Supports 125 kHz and 13.56 MHz frequency credentials

### Slim Design & Mounting Options



The device's slim design with its backplate suits most architectural and interior designs. The BioReaderMPFQ supports multiple mount types to meet most scenarios worldwide. Mounting accessories for speedgates are also available.

### IP66 Water & Dustproof Protection Rating



Certified IP66 water & dustproof rating ensures the readers can withstand dust, dirt, sand, and are resistant to strong winds and rain.

### Advanced Security



Secure communication: OSDP(V2.1.7) over RS485 communication between the BioReaderMPFQ and access control panels. Using AES-128 encryption standards ensures the highest levels of data protection & security.

### Supports Multi-Card Types



Supports 125 kHz and 13.56 MHz frequency credentials. Supports various card types including EM, IC Card, HID Prox, HID iCLASS, DESFire and FeliCa.

### Multi-Factor Authentication Capability



Offering credential options of palm, face, physical cards and QR codes.

\*IC Card, Desfire, HID Prox, iClass, SEOS, etc.

\*Integrate advanced multiple biometric recognition methods such as palm and face.

\*QR code scanning for visitors & employees.

\*PIN code option.

### Video Intercom (Coming Soon)



The BioReaderMPFQ supports video intercom function suitable for most visitor scenarios. Two-way audio streaming with echo and noise cancellation lets you easily communicate with visitors.

### Installation Made Easy



Slim design & form factor makes this device easy to install. PoE option allows for minimal use of cabling and lowers the cost of installation. The BioReaderMPFQ is suited for mullion-mount door installations or any flat surface mounting. Mounting accessories for speedgates are also available.

### Modern Aesthetic Design



The build of the BioReaderMPFQ blends a high quality metal enclosure with a tempered glass panel. The elegant design fits perfectly into any usage scenario and its sleek design brings a practical and reliable experience to users.

### Industry-Leading Design and User Experience



The BioReaderMPFQ provides an improved user experience with a 2.4" high resolution touchscreen screen and intuitive UI design. Using our advanced algorithms, users can get the best verification experience.

-Palm recognition distance range: 7" - 15.7" (18cm - 40cm)

-Face recognition distance range: 15.7" - 47.2" (40cm - 120cm)

### Variable Input Voltage



The device is compatible with 12V-24V input voltages.

### Outdoor Rated for Variable Environments



IP66 Weatherproof rating - built to withstand freezing cold winters, heavy rains and dry/hot summers.

-20°C to 60°C/ -4°F - 140°F operating temperature enables operation even under the most severe weather conditions.

### Unrivalled Palm & Face Recognition Performance



Reach's Multi-Biometric technology combines palm and face recognition with our unique deep learning algorithm to give users an efficient authentication experience. Industry-leading combination of visible and NIR infrared recognition technology provides exceptional authentication accuracy and the industry's top-notch anti-spoofing protection.

### Touchless Solution for New standards of the Post-pandemic World



The BioReaderMPFQ meets the needs of the contactless world with features like remote user enrollment, palm, mask detection and face recognition for users with or without masks. Our Palm/ Face/ Card/ QR code recognition technology supports contactless authentication.

### Better Images, Faster Recognition



This device supports palm/ face tracking, which can more intelligently capture the user's biometrics and avoid the user's biometric from continuing to be compared after verifying. At the same time, the palm/ face AE function enables the device to obtain higher quality images which improves the recognition accuracy.

## #BRMPFQ: Bio-Reader, Mullion-Mount, Palm, Face & QR Code

### Dimensions



### General Information

|                             |   |
|-----------------------------|---|
| Primary Power               | 12 to 24 VDC (3A min @12V)  |
| RS485 connection            | Port 1: RS485 standard / OSDP V2.1.7  |
| CPU                         | 1.2 GHZ Quad Core ARM Processor   |
| NPU                         | 2.4 TOPS NPU  |
| Memory                      | 8 GB Flash + 1 GB RAM   |
| Camera                      | Face Automatic Exposure Palm Automatic Exposure Face tracking<br>Palm tracking<br>WDR<br>HDR<br>50Hz to 60Hz Automatic Adaption Dual Camera<br>CMOS 2MP (Output image 720P*960P)  |
| Primary Host Communication  | Ethernet: 10/ 100 Mbps, auto MDI/ MDIX<br>Complies with TLS 1.2 for end to end secure communication channel   |
| Ethernet network connection | Port 1:10/ 100 Mbps, auto MDI/ MDIX   |
| Data Protection             | Complies with TLS 1.2 for end to end secure communication channel (Secured Communication between Standalone Terminal & Server)<br>AES128 (Secured Communication between Standalone Terminal & OSDP Reader & Access Control Panel) |
| Number of Ports             | 1*TCP/IP<br>1*RS-485<br>Input: 4ch TTL<br>Output: 1ch TTL Output<br>3 relays  |
| Inputs                      | Wiegand in, Button/Sidepanel, Door Sensor in, Aux/Top Panel Input, Keyway input   |
| Outputs                     | 3 relays with dry contacts, Wiegand Output, Lock, Alarm, Bell   |

|   |   |
|---|---|
| Normally Open Contact Rating                  | 5A @30Vdc resistive   |
| Normally Closed Contact Rating                | 5A @30Vdc resistive   |
| Tamper Switch                                 | Magnetic tamper detection system  |
| On-Board Monitor                              | Size: 2.4" , Resolution: 320*240, Touch Monitor, TFT  |
| Audio Indicator                               | Internal speaker with adjustable intensity (Configurable on UI)   |
| MIC   | Supported   |
| User Capacity                                 | 50,000  |
| RFID Card Capacity                            | 50,000 (1:N)/ 50,000 (1:1)  |
| Maximum RFID Card Number Length               | Wiegand In & Out (up to 64 bits)  |
| Face Capacity                                 | 10,000 (1:N)/ 50,000 (1:1)  |
| Palm Capacity                                 | 5,000 (1:N)/ 20,000 (1:1)   |
| RFID Reading Distance                         | 13.56MHz & 125kHz: Up to 1.96" / 50 mm (depending on environment & transponder)   |
| Face Recognition Distance                     | Dual Camera Liveness Detection On: 15.7" - 55.1" (40cm - 140cm)<br>Single Camera Liveness Detection On: 15.7" - 78.7" (40cm - 200cm)  |
| Palm Recognition Distance and Angle Tolerance | 7" - 15.7" (18cm - 40cm) / Pitch +/- 35, Yaw +/- 60, Roll +/-35, Blend +/-30  |
| Face Recognition Speed                        | 100ms (Field Test Result)   |
| Live Face Detection (Anti-Spoofing)           | Supported   |
| Recommended Installation Heights              | Face Reader: 55" (140cm) (Using the plate with tilt angle)<br>Face Reader: 59" (150cm) (Using plate with horizontal angle)<br>Palm Reader: 48" (123cm) (Using existing plate) |
| Palm Recognition Speed                        | 140ms (Field Test Result)   |
| Transaction Buffer                            | Records: 1,000,000  |
| Access group                                  | 99  |
| On-Board Access Point Control                 | 1 access point on board   |
| On-Board Reader Support                       | 1 (OSDP over RS485) or 1 (Wiegand Input)  |
| Protection / Resistance                       | Weather & Dust Proof Protection Rating compliant with IP66  |

| Software Interface   |   |
|----------------------|---|
| TCP/IP Mode          | Ethernet: 10 - 100Base-TX                                       |
| TCP/IP Protocol      | VLAN, SSH, HTTP, IPv4, DNS                                      |
| TCP/IP Encryption    | Complied up to TLS1.2 end to end secure communication channel   |
| TCP/IP Communication | Push Protocol over HTTP, HTTPS and BEST Protocol over websocket |
| Supported Software   | ReachBioSecurity  |

## RFID / Biometrics Reader Interface

|                       |  |
|-----------------------|--|
| Input Voltage         | 12 to 24 VDC (3A min @12V) (Equal to primary power input)  |
| Maximum Input Current | 12 to 24 VDC (3A min @12V) (Equal to primary power input)  |
| RS-485 Protocol       | OSDP 2.1.7 Secure Channel, AES-128   |
| OSDP Mode             | 9600-115200 bps, OSDP V2.1.7, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit.   |
| Wiegand               | Wiegand In & Out (Up to 64 bits)   |
| Data Inputs           | TCP/IP, RS485, OSDP and Wiegand standards supported.<br>Maximum RS485/ OSDP cable length: 500ft (152m)<br>Maximum Wiegand cable length: 328ft (100m) |

## Cable Requirement

|                    |   |
|--------------------|---|
| Power & Relays     | One twisted pair, 18 to 16 AWG  |
| Ethernet           | CAT-6 maximum 330 ft. (100m)  |
| RS-485 Reader Port | 9600-115200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit.<br>One twisted pair with drain wire and shield, 120 ohm impedance, 22-18 AWG,<br>Maximum cable length: 3937ft (1200m) |
| Wiegand Port       | 5C 20 AWG shielded, 328ft. (100m)   |

## Mechanical

|                  |  |
|------------------|--|
| Dimensions       | 2.3" W x 0.77" D x 7.3" H (58.47 x 19.5x 184.97mm)   |
| Weight           | 327g   |
| Mounting         | Suited for rack cabinet door mounting and mullion-mount door installations<br>Supports rots-02 bracket |
| Housing Material | Aluminium alloy + Tempered glass   |

## Environmental

|                                 |                                 |
|---------------------------------|---------------------------------|
| Operating & Storage Temperature | -4°F ~ 140°F (-20°C ~ 60°C)     |
| Operating Humidity              | 10 - 95% RH (Non-condensing)    |
| Certification(s)                | CE, FCC, RoHS, UL (coming soon) |

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