# MicroSmart FC6A PLC
## HMI and Communication Adapter Specifications

**IDEC**

## KEY FEATURES

- Add 2nd Ethernet port
- Add additional serial port
- HMI module supports User Web Page
- HMI module supports Web Server Functions
- HMI module supports Email and Text Message notifications

## HMI MODULE SPECIFICATIONS

### General Specifications

| Part Number | FC6A-PH1 |
|---|---|
| Power Consumption Inside Module (without connection cartridge) | 100mA (5V) 1.5mA (24V) |
| Cartridge (option) | One analog cartridge can be added |
| Weight (approx.) | 170g |

### Display Specifications

| Part Number | | FC6A-PH1 |
|---|---|---|
| Display | | TFT Monochrome LCD |
| Color/Shade | | Monochrome |
| Effective Display Area | | 47.98W × 8.22H mm |
| Display Resolution | | 192W × 64H pixels |
| View Angle | | Right and left 30°, up 20°, down 40° |
| Contrast adjustment | | Impossible |
| Backlight | | LED (green) |
| Brightness | | 45 cd/m² |
| Brightness Adjustment | | Impossible |
| Backlight Control | | ON/OFF |
| Backlight Replacement | | Impossible |
| Display Character Size | 1/2 size | 8 × 16 pixels (JIS 8-bit code, Western European language ISO 8859-1, Cyrillic ANSI1251) |
| | Full size | 16 × 16 pixels (Japanese JIS first level characters, simplified Chinese) |
| Quantity of Characters | 1/2 size | 24 characters × 4 lines |
| | Full size | 12 characters × 4 lines |
| Character Attribute | | Blink, reverse, |

### Communication Adapter

| Part Number | FC6A-PC1 | FC6A-PC3 |
|---|---|---|
| Standards | EIA RS232C | EIA RS485 |
| Maximum Baud Rate | 115,200bps | |
| Maintenance Communication | Possible | Possible |
| User Communication | Possible | Possible |
| Data Link Communication | — | Possible |
| Half-duplex Communication | — | Possible |
| Maximum Cable Length | 5m | 200m |
| Quantity of Slave Stations | — | 31 |
| Isolation between Internal Circuit and Communication Port | Not isolated | |
| RS485 Cable — Cable | — | 3-core shielded cable with a minimum core wire of 0.3 mm2 |
| RS485 Cable — Conductor Resistance | | 85 Ω/km maximum |
| RS485 Cable — Shield Resistance | | 20 Ω/km maximum |

### Operation Specifications

| Part Number | FC6A-PH1 |
|---|---|
| Operation Method | Rubber Switch |
| Operating Force | 2.0N minimum |
| Mechanical Life | 10,000 operations |
| Multiple Operation | Possible |

### HMI Ethernet Port Specifications

| Part Number | | FC6A-PH1 |
|---|---|---|
| Communication | | Complies with IEEE802.3 |
| Transmission speed | | 10BASE-T, 100BASE-TX |
| Protocol | | Datalink layer: IP/ARP  Network layer: TCP/UDP, ICMP  Application layer: DHCP, DNS, HTTP, SMTP |
| Connector | | RJ45 |
| Cable | | CAT 5. STP |
| Maximum Cable Length | | 100m |
| Isolation from Internal Circuit | | Pulse transformer isolation |
| Major Functions | Remote Maintenance | Uploading, downloading and monitoring using WindLDR  Number of connections: 8 |
| | Web Server | Page data of 5MB maximum (total of system web page and user web page) can be stored. (System web page: approx. 450 KB)  Number of connections: 8 maximum  Authentic method: digest authentication |
| | Send E-mail | Sends preregistered e-mails.  Up to 255 types of e-mails can be sent.  Authentic method: SMTP-Auth (login), SMTP-Auth (CRAM-MD5), SMTPs  Encoding method: BASE64 |
| | E-mail Size | The maximum size of texts for To or Cc is 512 bytes. [1]  E-mail subject: 255 bytes maximum  E-mail body: 4096 bytes maximum  Attached CSV file: 4096 bytes maximum  (includes spaces, separator characters, and newlines) |

Note 1: Comma (,) is inserted as a separating character between e-mail addresses.

## DIMENSIONS

FC6A-PH1



3.9 | 74.5 | 7.3 | 73.0 | 66.5 | 90.0 | 4.0 | *5.0 | 119.5 | 148.7