

MicroSmart Pentra RS232C Communication Module

- Features**
- Up to 5 modules can be added to a MicroSmart Pentra Slim CPU
 - Allows MicroSmart Pentra Slim to communicate with up to 7 serial devices
 - Up to 3 modules can be added to a MicroSmart Pentra All-In-One CPU allowing communication with up to 5 serial devices.
 - Communicate with HMI's, variable frequency drives (VFD), barcode readers, RFID equipment, printers, additional CPUs, displays, PCs, web servers, etc.
 - Screw termination for easy wiring
 - The communication circuit is isolated from the internal circuit allowing for high noise resistance
 - Maximum baud rate: 38.4 kbps



Specifications

| General Specifications | | |
|---|--|-------------------------|
| Number of Channels | 1 | |
| Synchronization | Start-stop synchronization | |
| Electrical Characteristics | EIA RS232C compliant | |
| Maximum Delay in One Scan | Approx. 4 ms | |
| Operating Temperature | 0 to 55°C | |
| Operating Humidity | 10 to 95% RH (no condensation) | |
| Recommended Cable Specifications | Shielded multi-core cable | 24AWG x 6 |
| | Dielectric strength | 2000 V/min |
| | Insulation resistance | 100 MΩ/km |
| Maximum Cable Length | 3m | |
| Connector on Mother Board | MC1.5/10-G-3.81BK (Phoenix Contact) Applicable terminal block: FC4A-PMT10P (supplied) | |
| Isolation from Internal Circuit | Transformer isolated | |
| Maximum Number of Communication Modules | Slim type CPU module | 5 max. |
| | All-in-one 24-I/O type CPU module | 3 max. (see note below) |
| Internal Current Draw | 85 mA (5V DC) 0 mA (24V DC) | |
| Weight | Approx. 100g | |

Note: Use only the Slim MicroSmart Pentra CPU to connect to the expansion RS232C communication modules in combination with the function modules listed below (not applicable to the FC5A-C24R2 all-in-one module).

| Function Module | Type No. |
|----------------------------|---|
| Analog I/O Module | FC4A-L03A1, FC4A-L03AP1, FC4A-J2A1, FC4A-J4CN1, FC4A-J8C1, FC4A-J8AT1, FC4A-K1A1, FC4A-K2C1 |
| AS-Interface Master Module | FC4A-AS62M |




Notes

1. WindLDR version 5.10 or higher is required.
2. Applicable FC5A CPU firmware is version 1.10 or higher.
3. WindLDR version 5.10 allows for firmware upgrade.

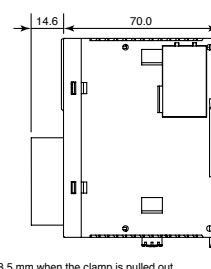
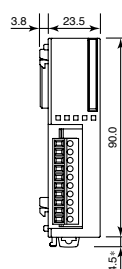
Communication Specifications

| | | |
|--------------------------|---------------------------|--|
| Communication Parameters | Baud Rate (bps) | 1200, 2400, 4800, 9600, 19200, 38400 |
| | Data Bits | 7 or 8 |
| | Parity | Odd, even, none |
| | Stop Bits | 1 or 2 |
| Protocol | Maintenance Communication | Possible (except for user program download and upload) |
| | User Communication | Possible |

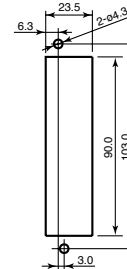
Terminal Arrangement

| Terminal | I/O | Description |
|---|--------|---|
| RS (RTS) | Output | Request to Send (constant voltage terminal) |
| ER (DTR) | Output | Data Terminal Ready |
| SD (TXD) | Output | Transmit Data |
| RD (RXD) | Input | Receive Data |
| DR (DSR) | Input | Data Set Ready |
| SG (SG) | — | Signal Ground |
| NC | — | No connection |
|  | — | Functional ground (can be used as junction terminals of functional ground; not connected to the internal circuit) |
|  | — | |
|  | — | |

Dimensions (mm)



Mounting Hole Layout



*8.5 mm when the clamp is pulled out.

Mouser Electronics

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IDEC:

[FC5A-D12S1E](#) [FC5A-EXM2](#) [FC5A-PMT13P](#) [FC5A-F2MR2](#) [FC5A-PMTK16E](#) [FC5A-F2M2](#) [FC5A-PMTS16E](#) [FC5A-D12K1E-DS0838](#) [FC5A-D12S1E-DS0838](#) [FC5A-D16RS1-V112](#) [FC5A-D12K1E](#) [FC5A-D16RS1-V232](#) [FC5A-KX1C](#)
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