



Product Data Sheet

FISCHER & PORTER MICRO-DCI Communication Server

The Klinkmann **FISCHER&PORTER MICRO-DCI Communication Server (F&PM-DCI)** is a Microsoft Windows application program that acts as a communication protocol *Server* and allows other Windows application programs to access the data from Fischer&Porter MICRO-DCI instruments (controllers). Any Microsoft Windows program that is capable of acting as a DDE, FastDDE, SuiteLink or OPC *Client* may use the F&PM-DCI Server.

There are following F&PM-DCI Server versions available:

- F&PM-DCI DDE & Suite Link Server,
- F&PM-DCI OPC & DDE Server.

FEATURES

The **OPC** support for F&PM-DCI Server OPC & DDE version conforms to OPC Data Access Custom Interface Specification 2.04. The F&PM-DCI Server OPC & DDE version is tested for compliance and is compatible with OPC Foundation OPC Data Access Compliance Test Tool.

The F&PM-DCI Server DDE & Suite Link version (if running on MS Windows NT) supports the Wonderware **Suite Link** communication protocol.

The F&PM-DCI Server is intended for serial communication with MICRO-DCI controllers through the "Data Link" port on the instrument. Connection to the host computer is through the serial communication port of the host via an RS-422/485 adapter board or external converter. However, for 53MC5000 model controller the Server supports additional RS-232 communication channel ("Configuration" channel).

The Server supports byte stuffing: whenever 7E hexadecimal is transmitted as anything other than Start of Header (SOH), a 00 byte is inserted directly following it.

The Server minimizes system message traffic by dynamically calculating and optimizing poll lists to read only, client-requested items/points.

The Server supports multiple topics, allowing different data update rates for each controller.

The Server provides a communication status flag for each topic.

The Server supports standard DDE among multiple applications.

SPECIFICATIONS

Hardware: For effective using the following is recommended - CPU: 586 133 MHz or faster, 32MB RAM or more. May require more memory to run other Windows programs simultaneously.

Software: MS Windows XP, Windows 2003 Server, Windows 7, Windows 2008 Server, Windows 2012 Server.

Maximum Connections: The Server supports up to 128 controllers connected.

F&P Devices Supported: 53MC1000, 53MC2000, 53MC4000, 53MC5000, 53SL6000, KM2000, 2340REC and 50XM1000.

Base addresses from the following table are used by the Server in order to calculate the actual addresses of the data elements in the memory of the Controller.

| | 53MC1000 | 53MC2000 | 53MC4000 | KM2000 | 53MC5000 | 53SL6000 | 2340REC | 50XM1000 |
|----------|----------|----------|----------|--------|----------|----------|---------|----------|
| L | 000C H | 0300 H | 0032 H | 0032 H | 0500 H | 084B H | 00A4 H | 0021 H |
| B | 0000 H | 0200 H | 0000 H | 0000 H | 0200 H | 0800 H | 0000 H | 0000 H |
| C | 0014 H | 0320 H | 0041 H | 0041 H | 0600 H | 085B H | 00B4 H | 0025 H |
| H | 00A1 H | 0620 H | 0299 H | 0299 H | 0F00 H | 09CF H | 0351 H | 0052 H |
| A | | | 0393 H | 0393 H | 1400 H | | 05D1 H | 008E H |

Accessible Point Types The following are the supported Item/Point Types:

| Item name | Description | DDE Tag Type | Value Range |
|-----------|----------------------------|--------------|------------------------------------|
| L | BINARY BIT | Discrete | 0, 1 |
| B | Positive INTEGER | Integer | 0...255 |
| C | REAL ANALOG | Real | 3.4*10**(-38) ... 3.4*10**(+38) |
| H | High precision ANALOG | Real | 3.4*10**(-38) ... 3.4*10**(+38) |
| A | TEXT STRING; 10 characters | Message | |
| F | TEXT STRING; 5 characters | Message | |

The range of item/points depends on Controller type and Controller Database parameters available:

| | 53MC1000 | 53MC2000 | 53MC4000 | KM2000 | 53MC5000 | 53SL6000 | 2340REC | 50XM1000 |
|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L | L000... L063 | L000... L255 | L000... L119 | L000... L119 | L000... L999 | L000... L127 | L000... L123 | L000... L029 |
| B | B000... B011 | B000... B127 | B000... B049 | B000... B049 | B000... B639 | B000... B074 | B000... B163 | B000... B032 |
| C | C000... C046 | C000... C255 | C000... C199 | C000... C199 | C000... C639 | C000... C371 | C000... C222 | C000... C014 |
| H | H000... H010 | H000... H036 | H000... H049 | H000... H049 | H000... H127 | H000... H250 | H000... H127 | H000... H011 |
| A | | | A000... A009 | A000... A009 | A000... A317 | | A000... A090 | |
| F | | | | | F000... F447 | | | |

Note: This table shows the Controller Database parameters available. The F&PM-DCI Server supports also the items/points outside this range, i.e. Controller all memory addresses are accessible.

The F&PM-DCI Server allows to operate with BINARY BIT (**L** type data) values as 8-bit (byte) or 16-bit (word) statuses. The following item/point names are used for this purpose:

| Item name | Description | DDE Tag Type | Value Range | Range |
|-----------|----------------------|--------------|-------------|-------------|
| E | 8 bit (byte) status | Integer | 0...255 | E000...E992 |
| W | 16 bit (word) status | Integer | 0...65535 | W000...W992 |

The ranges of items/points are as follows:

| | 53MC1000 | 53MC2000 | 53MC4000 | KM2000 | 53MC5000 | 53SL6000 | 2340REC | 50XM1000 |
|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| E | E000... E056 | E000... E248 | E000... E112 | E000... E112 | E000... E992 | E000... E120 | E000... E120 | E000... E024 |
| W | W000... W048 | W000... W240 | W000... W104 | W000... W104 | W000... W992 | W000... W112 | W000... W112 | W000... W016 |

ORDERING INFORMATION

Description / Order Number

F&PM-DCI DDE & Suite Link Server Manual & Disk Set / DR 020 15

F&PM-DCI OPC & DDE Server Manual & Disk Set / DR 020 16

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