



DMX1-USB

DMX2-USB

# Operating Instructions

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## General Information:

The DMX1-USB and DMX2-USB are interfaces you can use to connect one or several measuring devices with DIGIMATIC interface to a PC. The DMX1-USB provides **one** DIGIMATIC interface, the DMX2-USB provides **two** DIGIMATIC interfaces.

In what follows both device versions are referred to simply as DMX-USB.

Optionally you can connect a foot switch to the DMX-USB to trigger the transfer of measured values. Use the USB cable for connection to the PC. The device is also powered through this cable.

When you connect the DMX-USB to your PC for the first time, you are asked to install a device-specific driver. Use the CD provided which contains the required driver, driver installation instructions and these operating instructions. When you install the driver, you will also install a *virtual COM port (VCP)*. This provides your PC software with a *serial interface (e.g. COM3)* which allows you to control the DMX-USB. See [MUX10 Data Format](#).

**Caution: Insert the 8cm CD only into a CD-ROM drive with appropriate tray!**

## First Operation:

Connect the measuring device and if required a foot switch to the DMX-USB. Then use the USB cable to connect the DMX-USB to the PC. When you connect the DMX-USB to your PC for the first time, Windows will detect *new hardware*. You will be asked to install its driver. The driver installation will also install a *virtual COM port (VCP)*. After the installation check in the *Device Manager* to see which number has been allocated to the *VCP (DMX Serial Port)*. Set your PC software to the correct number of the new communications port.

**Make sure that you read the Driver Installation Instructions on this CD.** They explain how you can change the *communications port number* if your PC software cannot access the allocated number.

## Plug & Play:

After the driver installation you can temporarily unplug the DMX-USB from your PC/notebook if you want to use the USB interface for other purposes or transport your notebook. The *DMX Serial Port* and *USB Serial Converter* won't be displayed anymore in the *Device Manager*. However, the *communications port number* will continue to be reserved for the DMX-USB.

When you reinsert the DMX-USB make sure that you use the same USB interface. Otherwise the driver will be installed again, allocating another communications port number. Start the PC software only when the DMX-USB is connected. Otherwise the software might not be able to open the communications port.

## Transfer of Measured Values:

Measured values can be transferred in three different ways.

1. The PC software sends a *prompt character*. See [Advanced Command Set](#).
2. A transfer of measured values is triggered on the measuring device itself, e.g. by pressing the *Data button*.
3. The *foot switch* is pressed. This transfers the values of all unlocked measuring devices.

## MUX10 Data Format:

The Data format corresponds to that one of the MUX10.

### *Parameters of the Virtual Communications Port*

9600 baud, 8 data bits, no parity, 1 stop bit, no handshake

These values have to be set in your PC software.

### *Advanced Command Set*

All commands have to be concluded with a *carriage return (13hex)*.

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0<sup>C/R</sup> Measuring device is read (only DMX1-USB)  
B<sup>C/R</sup> Both measuring devices are read (only DMX2-USB)  
1<sup>C/R</sup> Measuring device 1 is read  
2<sup>C/R</sup> Measuring device 2 is read

D0<sup>C/R</sup> All measuring devices are locked  
D1<sup>C/R</sup> Measuring device 1 is locked  
D2<sup>C/R</sup> Measuring device 2 is locked

E0<sup>C/R</sup> All measuring devices are unlocked  
E1<sup>C/R</sup> Measuring device 1 is unlocked  
E2<sup>C/R</sup> Measuring device 2 is unlocked

## Format of Measured Values

A measured value always consists of 12 ASCII characters concluded by <sup>C/R</sup>.

Example: 01A+1234.567<sup>C/R</sup>

1 <sup>st</sup> character	0	Measured value ID	With measured values always = 0
2 <sup>nd</sup> character	1	Canal number	Specifies the measuring device number
3 <sup>rd</sup> character	A	Measured value ID	With measured values always = A
4 <sup>th</sup> character	+	Sign	+ or –
5 <sup>th</sup> -12 <sup>th</sup> char.	1234.567	Measured value	Measured value with variable decimal point

## Error Messages

An error message always consists of 3 ASCII characters concluded by <sup>C/R</sup>.

Example: 911<sup>C/R</sup>

1 <sup>st</sup> character	9	Error ID	With error messages always = 9
2 <sup>nd</sup> character	1	Canal number	Specifies the measuring device number
3 <sup>rd</sup> character	1	Error code	1 = Measuring device not connected, switched off or cannot be requested from the DMX-USB. 2 = Data format of the measuring device not supported.

## Accessories

Part No.	Data cable to connect the measuring device to the DMX1-USB
905 338	Cable 1m without Data button for DIGIMATIC caliper
905 409	Cable 2m without Data button for DIGIMATIC caliper
959 149	Cable 1m with Data button for DIGIMATIC caliper
959 150	Cable 2m with Data button for DIGIMATIC caliper
937 387	Cable 1m for DIGIMATIC micrometer
965 013	Cable 2m for DIGIMATIC micrometer
937 179	Foot switch

## Technical Support

If you have questions, please contact:

Mitutoyo Messgeräte GmbH  
Borsigstraße 8-10  
41469 Neuss, Germany  
Phone: +49-2137 1020  
Fax: +49-02137 8685  
[info@mitutoyo.de](mailto:info@mitutoyo.de)  
[www.mitutoyo.de](http://www.mitutoyo.de)