

# OPERATION MANUAL

## DMX-3

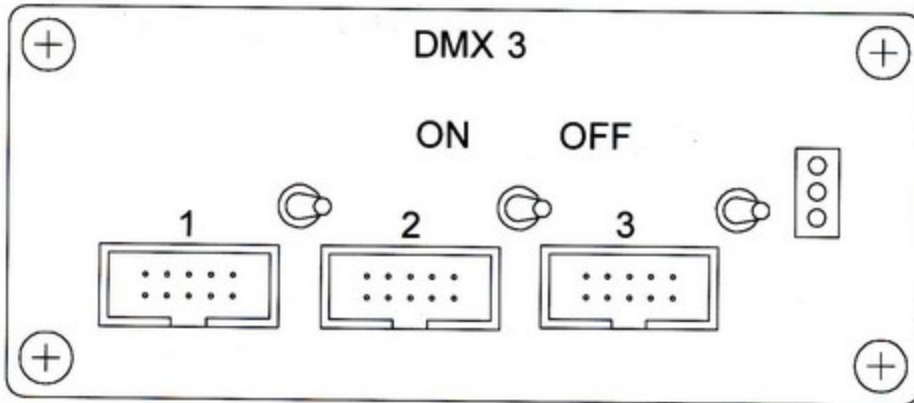
Lesen Sie diese Bedienungsanleitung vor der Inbetriebnahme des Gerätes sorgfältig durch und halten Sie sie griffbereit.

**Mitutoyo**

## DMX 3 Version 1.00

04/97

### Front view



### General

The DMX3 is a multiplexer for the connection of three Mitutoyo-Digimatic measuring instruments with the serial port (RS232C) of an host-PC.

The data-transfer can be triggered by the-host-PC, the data-button of the measuring-instrument or, if present, by using the foot-pedal-switch of the DMX3.

The DMX3 is compatible to the former MUX10 device, which allows to use the DMX3 with software written for the MUX10.

### Measuring-instruments

The DMX3 offers three ports for Mitutoyo-Digimatic measuring instruments

### Switches

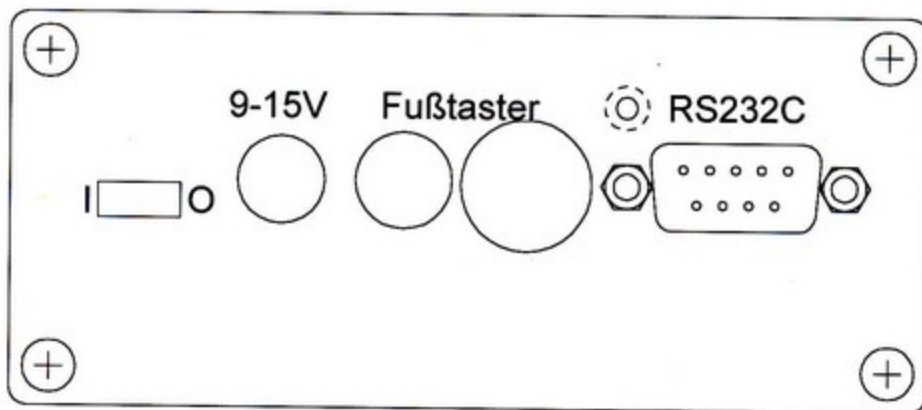
Using the switches, the user can choose the channel to be read out.

Important: Using the MUX 50 -mode disables the switches.

### Control-LEDs

Three control-LEDs on the front-panel indicate the condition of the DMX3. The green LED flashes when electric-supply is on. The yellow LED indicates the function of the foot-pedal-switch. The red LED flashes while the DMX3 is reading out data from the chosen measuring-gauge.

## Rear view



### On – Off switch

Using the On – Off Switch enables/disables electric-supply

### Electric-supply-port

The DMX3 uses a common mains appliance. The mains appliance should offer a voltage of 9 – 15 V (AC/DC) and a current of 50 mA.

### Foot-pedal-switch

The DMX3 offers two ports for the connection of a foot-pedal-switch, one for the Mitutoyo-switch, the other one for a BOBE-switch.

### RS232C-serial port

The parameters for the data-transfer are:

1200 Baud, 8 Data-bits, 1 Stop-bit, no parity

Using jumper 1 inside the DMX3 the baud-rate can be altered to 9600 baud.

### Data-format

The DMX3 supports the MUX10 data-format. For special purpose the MUX50 data-format can be chosen by using jumper 0 inside the DMX.

### Command-string

In the following data-sheet all DMX3 commands are listed. All commands must be terminated by carriage-return.

!	Programmer's Message
0	Read channel 1, 2, 3
1	Read channel 1
2	Read channel 2
3	Read channel 3
A	Read channel 1, 2, 3
B	Read channel 1, 2
C	Read channel 1,
D	Read channel 2,
I	Identifies interface
[ETC]	Software-Reset (ASCII-Code 03)

Following commands refer only to MUX 50-Mode

D0	Lock channel 1, 2, 3
D1	Lock channel 1
D2	Lock channel
D3	Lock channel
E0	Unlock channel 1, 2, 3
E1	Unlock channel 1
E2	Unlock channel 2
E3	Unlock channel 3

### Measuring-data

Data will be transferred as ASCII-Strings with defined length.

### MUX10 - string

Example: 01A+1234.123 [cr]

1. Character	Data-identification	always = 0
2. Character	Channel-number	Identifies the channel (port number)
3. Character	Data-type	always = A
4. Character	Sign	+ or -
5. - 12. Character	Data/Value	Data/Value with variable decimal-separator
13. Character	Terminator	Carriage-Return

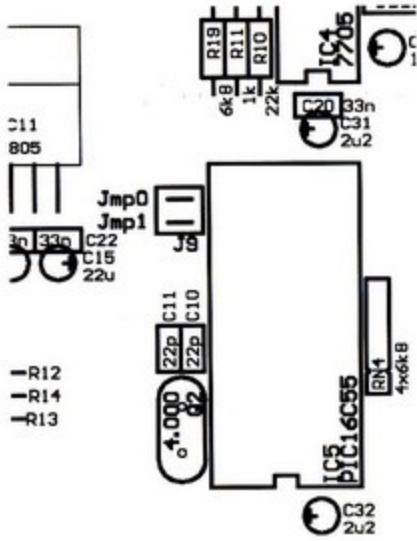
### MUX10 - error-codes

Example: 921 [cr]

1. Character	Type of error	always = 9
2. Character	Channel	Channel-number (port number)
3. Character	Error code	1= No Measuring-instrument present 2= Incompatible data-type
4. Character	Terminator	Carriage-Return

### Altering the mode

Inside the Interface are two jumpers, Jmp0 and Jmp1.



#### Jmp0

Jmp0 open, MUX10 mode is activated

Jmp0 closed, MUX50 mode is activated

#### Jmp1

Jmp1 open, baud rate is 9600 baud

Jmp1 closed, baud rate is 1200 baud

### Serial port and foot-pedal-port

