

Measurement Data Management

Digimatic/RS-232C Interface Unit Multiplexer MUX-10F

- Multiplexer **MUX-10F** is a measurement data transfer device that converts incoming Digimatic output measurement data to RS-232C and outputs it to other devices such as a PC and sequencer.
- Up to four measuring instruments with Digimatic output can be connected.



SPECIFICATIONS

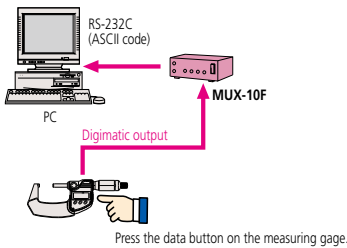
Code No.	264-002*
Model	MUX-10F
Data input port	4 channels for Digimatic gages
Output: (RS-232C)	Data transmission method: Half-duplex, Data transmission code: ASCII/JIS, Data length: 8 bits Parity check: None, Stop bit: 1, Data transmission speed: 300/600/1200/2400/4800/9600/19200 bps
Power source	AC adapter (9 V, 500 mA)
External dimensions	91.4 (W) x92.5 (D) x50.4 (H) mm

\* To denote your AC line voltage add the following suffixes. **A** for North America, **D** for Europe, **E** for UK, **K** for Korea, **DC** for China, and no suffix is required for Japan.  
Note 1: Communication software is not included.  
Note 2: Separately purchase the cables. Refer to pages 09-23 and 09-24 for cable types.

Typical Application

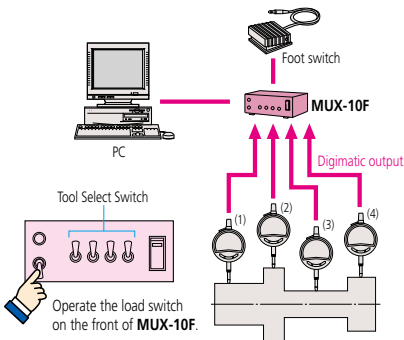
Data input using the data button on the Digimatic gage

- If the Digimatic gage has a data button, data is sent to the **MUX-10F** from the gage, converted to RS-232C and sent out.



Data input using the load switch

- If the Digimatic gage does not have a data button, or when simultaneous measurements are performed, the **MUX-10F** load switch is used to poll data from the measuring gage(s) selected by the tool selection switch (es), converted to RS-232C, and sent out.
- If multiple measuring gages are selected by the tool selection switch, data is input in the order of channels 1 through 4.
- Optional foot switch (**937179T**) is available for quick data entry.

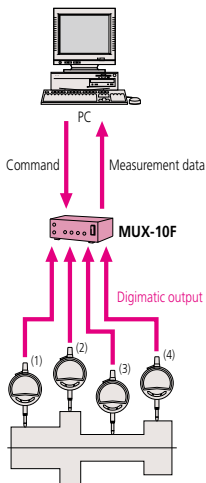


Data input using the external commands

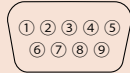
- Data from a specified measuring gage connected to **MUX-10F** can be polled (ch 1 to 4) by inputting a command from the PC.

Commands (ASCII)	Transfer channels
1 (ASCII code31) CR	1
2 (ASCII code32) CR	2
3 (ASCII code33) CR	3
4 (ASCII code34) CR	4
*A (ASCII code41) CR	1, 2, 3, 4
*B (ASCII code42) CR	1, 2, 4
*C (ASCII code43) CR	1, 3, 4
*D (ASCII code44) CR	2, 3, 4
E (ASCII code45) CR	1, 2, 3
F (ASCII code46) CR	1, 2
G (ASCII code47) CR	1, 3
H (ASCII code48) CR	1, 4
I (ASCII code49) CR	2, 3
J (ASCII code50) CR	2, 4
K (ASCII code51) CR	3, 4

\* Command will operate the same as previous **MUX-10** when 4-channel mode is turned off.



Connector specification



Pin No.	Signal	Function	in/out
1	CD		out
2	RD	Received data	out
3	TD	Communication data	in
4			
5	GND	Ground	
6	DR		out
7			
8	CS		out
9			

Note: For connection with a PC, use a commercially available RS-232C straight cable.

Data format

- When data output  
D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 CR  
Model: + or -  
Measurement item: A - LSD (Floating decimal point)  
Channel No.: 1 to 4  
Data format code No.: 0
- Example of format  
Display (CH1) -0.018  
Output data 01 A - 0000.018 CR  
Display (CH2) 0.1234  
Output data 02 A+000.1234 CR  
The smallest input channel number data is output first in the output stream, with the others following in ascending order.
- Error code output  
D1 D2 D3 D4 CR  
Error code No.:  
Channel No.: 1 to 4  
Error format: 9  
1: No data input  
2: Loaded data with format other than specified