



CM-1000-Sx

User's Guide

The contents of this manual could be different according to the software version and it can be changed without notice.

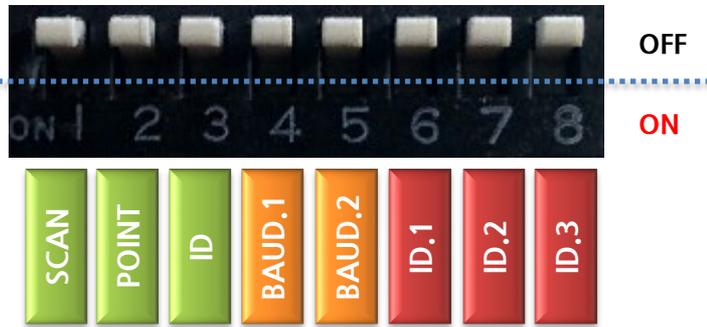
Please use this good after reading the manual thoroughly.

1. Feature

<Front view>



2. Switch Configuration



SCAN	
OFF	Manual Operation
ON	Continuous Operation

POINT	
OFF	+XXXX format
ON	+X.xxx format (mm unit)

ID	
OFF	No Use ID
ON	Use ID

BAUD.1	BAUD.2	
OFF	OFF	9600bps
ON	OFF	19200bps
OFF	ON	38400bps
ON	ON	115200bps

When ID = ON

ID.1	ID.2	ID.3	
OFF	OFF	OFF	ID=1
ON	OFF	OFF	ID=2
OFF	ON	OFF	ID=3
ON	ON	OFF	ID=4
OFF	OFF	ON	ID=5
ON	OFF	ON	ID=6
OFF	ON	ON	ID=7
ON	ON	ON	ID=8

When ID = Off then ID = 0

ID.1	ID.2	ID.3	Data output speed
OFF	OFF	OFF	Max
ON	OFF	OFF	1/sec
OFF	ON	OFF	2/sec
ON	ON	OFF	5/sec
OFF	OFF	ON	10/sec
ON	OFF	ON	20/sec
OFF	ON	ON	50/sec
ON	ON	ON	100/sec

If switch setting is changed, please off the power and on again.

3. Connection Configuration -1



1) POWER & IO Pin description

Pin	Name	In/Out		Description	Circuit
1	NCOMMON		0 V	GROUND	
2	PCOMMON		+24V		
3	-	in	H/L		
4	-	in	H/L		
5	SCAN	in	H/L		
6	RESET(M.CLEAR)	in	H/L		
7	ZERO	in	H/L		
8	START	in	H/L		
9	BUSY	out	H/L		
10	READY	out	H/L		
11	-	out	H/L		
12	-	out	H/L		
13	-	out	H/L		
14	-	out	H/L		

3. Connection Configuration -2



2) RS232C Pin description

Elec' micrometer		Direction of signal	Computer	
Signal	Pin No.		Pin No.	Signal
N.C	1		1	DC
RD	2		2	RD
TD	3		3	TD
N.C	4		4	DTR
SG	5		5	SG
N.C	6		6	DSR
N.C	7		7	RTS
N.C	8		8	CTS
N.C	9		9	RI

- Cable of computer serial working terminal - Connect 4Pin and 6Pin / Connect 7Pin and 8Pin

3) RS485 Pin description (CM-1000 side)

- Pin 1 : D- , Pin 9 : D+

4. Serial Communication

- ASCII Format

Byte	1	2	1	2	1	-	1	1	2	1	1
Char	ENQ (0x05)	ID	,	Num. of Data	,	Data (n byte)	,	ETX (0x03)	@@	CR	LF

(n = Transmit Data Qty x 2)

Ex) In case of ID: 01, Num. of Data is 2.

1	2	1	2	1	6	1	6	1	1	2	1	1
ENQ	01	,	02	,	+0043	,	-0025	,	ETX	@@	CR	LF

ID

Data amount(04: 4 channel data)

01,04,+1213,+0010,+0010,+001100

Data (4 data in this view)

+0.000 or +0000 display can be selected by DIP switch setting.

*Serial Commands :

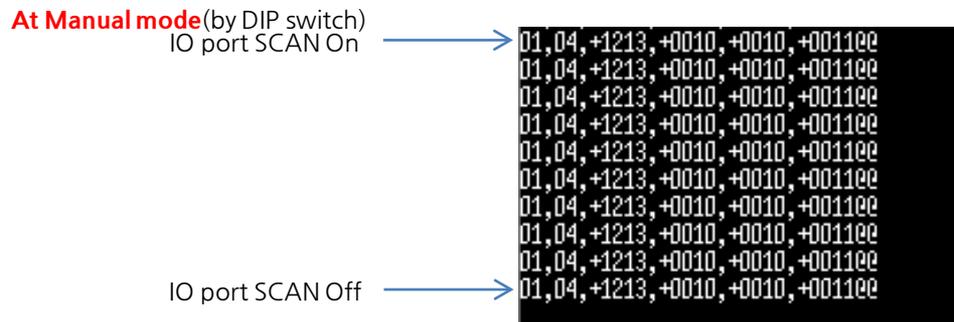
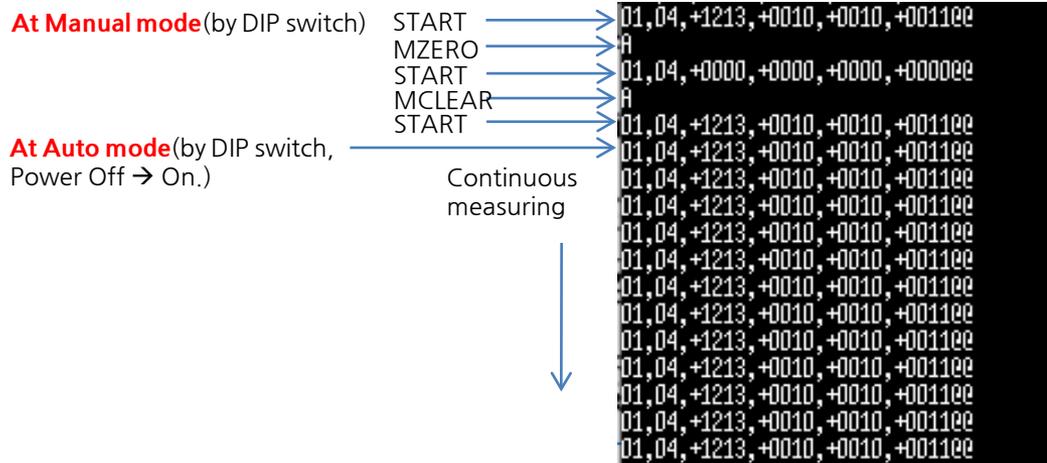
- START : Starts the measurement once & return the measured data.
- MZERO : Master Zero.
- MCLEAR : Master Zero clear.

*Serial Commands Format:

- [COMMAND] [CR] [LF] → [ACK] return after 5msec
 -[CR] : 0x0D, [LF]: 0x0A, [ACK] : A [CR] [LF] (= A\r\n)

5. How to use

If you open a serial communication viewer, the data below will be shown.
(Caution: Power should be turn off and on after change the switch setting.)



6. Specification

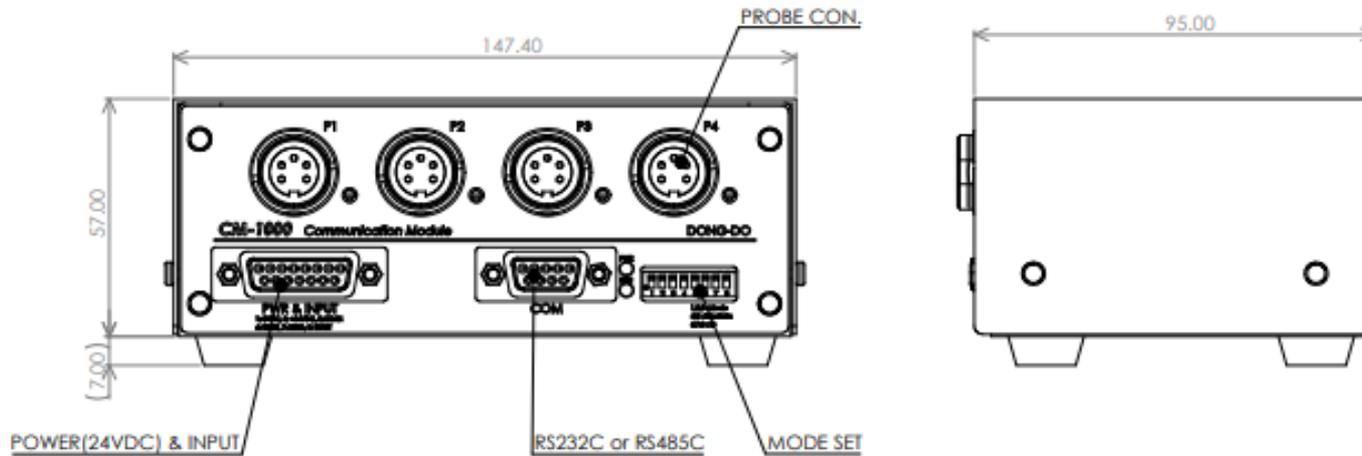
① General Specifications

DIVISION	GENERAL
MAIN SUPPLY	DC24V
OPERATING TEMPERATURE	5 ~ 40℃
RELATIVE HUMIDITY	Up To 70%

② Specifications

DIVISION		SPECIFICATION
PORBE SENSOR	CHANNELS	1~4ch
	RESOLUTION	1um (0.1um option)
DIMENSION		W147.4×D95×H57(mm)
WEIGHT		0.7kg
IN/OUT INTERFACE		RS232C / RS485, 9600bps ~ 115200bps
		I/O port (IN:4, OUT:2)

7. Dimension



High Precision Electronic Micrometer

 DONGDOEI