

## MSCY-X Digital Differential Pressure Gauge



MSCY-X battery powered digital differential pressure gauge adopts high precision, high sensitivity pressure sensitive components and ultra-low power consumption microprocessor. It processes the differential pressure of the measured medium into digital signal and displays the differential pressure value in real time. It has the characteristics of fast response, high precision, good stability and long service life. It is widely used in petroleum, chemical industry, metallurgy, environmental protection, measurement, automatic control engineering, production process detection and other industrial automation fields.

### Characteristic

5-Bits LCD display.

With ultra-low power consumption microprocessor, real-time detection can be used for more than 2 years.

Multiple pressure units available.

Can be customized according to customer requirements.

Can be used as standard calibration equipment.

Waterproof structure design of battery box.

### Parameters

Form of pressure	Differential pressure
Display mode	5-bits LCD
Accuracy (%FS)	0.25
Repeatability (%FS)	≤0.25
Zero temperature drift (%FS/°C)	≤0.02
Full temperature drift (%FS)	≤0.02
Stability (%FS/年)	≤0.25
Working voltage (V)	9VDC (layer-built battery)
Ambient temperature (°C)	-20~60°C

Overload capacity (%)	300
Life	> 9 million pressure cycles
Response time (ms)	10
Measuring medium	Various media compatible with stainless steel
Diaphragm material	316L
Joint material	304, 316,
Interface	M20*1.5, G1/2, G1/4, 1/4NPT or customized
Protection rate	IP65

### Ordering Codes (Model Selections)

MSCY-	Differential Digital Pressure Gauge	
-	Housing type	80: 82mm display diameter 100: 100mm display diameter Ex: Ex-proof cast alloy aluminum
-	Pressure range	e.g. 0-10bar or 0-1MPa etc.
-	Wet Part Material	-S4: 304 Stainless Steel -S0: specified
-V	Power Supply	None: Battery 1: 24VDC 2: 220VAC
-A	Installment type	1: thread 4: customer specified
-	Size of installment	e.g. for A1, -1/2BSP or -M20*1.5 etc.; for A3, -2" or 3" etc.

### MSCY-100:



## Operating instructions

### Take MSCY-80 as example:

S key (1st key): backlight switch / shift

M key (2nd key): menu setting / confirmation

P Key (3rd key): switching power supply / value modification

S key: press the s key to turn on or off the backlight. If you press the s key for 3S and release it, you can switch between different units; FFFFF means that the display overflows.

M key: short press the M key to switch between the maximum value (max) and the minimum value (min). When entering the display maximum value or minimum value, press the s key again to clear the current maximum value or minimum value. The M key can switch between displaying the maximum value, the minimum value and the current value.

P Key: press p key to turn off or turn on the power supply of pressure gauge.

Menu setting: after pressing the M key for 3 seconds, when lock is displayed, release the key and the display bit will flash. Press the p key to change it to 00006, and then press the M key to enter the following menu:

number	unit symbol	menu name	value range	menu description
1	Bar	Unit selection	MPa; KPa; Bar etc.	Change the number on the main screen to switch units.
2	TICK	Sampling rate selection	Effective within 1 ~ 10	1 for 250ms sampling (x * 250)
3	OFF	Delay shutdown selection	0 or number (minutes)	0 means no delay shutdown, and number means delayed shutdown
4	CUT	Zero point cutoff function	00~80	00 means no cut-off, 20 represents zero point of 2% cut-off
5	SAVE	Save modified parameters	yes or no	after modifying parameters, choose yes to save
6	END	Exit menu	EXIT	Press m to exit the menu after selecting

### Take MSCY-100 as example:

Open/close the pressure gauge: short time press "ON/OFF" button.

Shift engineering unit: long time press "ON/OFF" button.

Clean the peak pressure value: short time press "ZERO" button.

Clear the showing pressure value: long time press "ZERO" button (Note: only available when without any pressure).

Some setting menus:

"lock": password input menu, input password 1000

"off": auto-shut off time menu, available time,00~15minutes,00 means no auto-shut off function.

"bclt": back light time Manuel, available time,00~15minutes,00 means no back light function.

"end-": exit menu, 0 or 1.0 means exiting without keeping the previous setting records, 1 means exiting with keeping the previous setting records.

When setting menus, buttons and their functions:

"ON/OFF" button: short press it to change the currently flashing valves (when the first digit is flashing) or confirm the above the change (when flashing stops).

"ZERO" button: short press it to modify the currently flashing values, long press it shift the digit.

How to set auto-shut off time and back light time:

Press "ZERO" button and "ON / OFF" button at the same time, when "lock" shows in the small screen, input 1000, then press "ON / OFF" button to confirm, then into menu situation.

Short press "ZERO" button to choose the menu.

Short press "ON/OFF" button to change the value.

Short press "ON/OFF" button to confirm the change of the value.

Short press ZERO button to choose "end-" menu, then keep the change.