Model MC2080Y-X Digital Pressure Gauge

MC2080Y-X Digital Pressure Gauge is a battery powered intelligent pressure gauge with high precision, tracking speed, simple operation and reliable self-protection function. The product applies whole electronic structure and silicon piezoresistive sensor chip, with powerful anti-jamming capability, fast sampling speed, digital filtering techniques to ensure its high accuracy, low drift, reliable performance, anti-corrosion, anti-vibration, long life, and self-protection function.

It can be applied to liquid, gaseous or vaporous media without ex-proof requirement. It is suitable for on-site pressure measurement or high-precision pressure measurement in laboratories. As an excellent alternative to mechanical pressure gauge with high precision, it also can be used to calibrate general pressure gauge.

Technical Specification

Power: 3.6V battery; or AC220V; or DC24V;

Accuracy: 0.1%; 0.25%

Compensating temperature range: 0~65℃

Indicating pressure unit: MPa, Pa, Psi, bar, KPa, Tor, Atm, Kgf (kgf/cm2), MMH(mmH2O), MH2(mH2O).

Connection size: M20×1.5; G½"; ½" NPT or customized

Packing size: W×L×H 130×94×40 mm

Nominal display size: 82mm, 100mm, 150mm

Wetted Material: stainless steel 304, 316 (or customized)

Humidity：No more than 85% RH

Stainless steel case or plastic case available.

Large-screen LCD display, high resolution, back light, easy to read.

Automatically record the maximum and minimum pressure values available.

Auto-off feature.

Micro-power consumption, over 2 years in power-saving mode, continuous work 2,000 hours.

Parameter correction, correct zero and error in field application.

Sampling rate: 4 times/sec

Ordering Codes (Model Selections)

MC2080Y-	Digital Pressure Gauge	
-	Housing type	80：82mm display diameter 100：100mm display diameter 150：150mm display diameter Ex: Ex-proof cast alloy aluminum Z: Back thread connection
-	Pressure range	e.g. 0-10bar or 0-1MPa etc.
-	Wet Part Material	-S4: 304 Stainless Steel -S6: 316 Stainless Steel -S0: specified
-V	Power Supply	None: Battery 1: 24VDC 2: 220VAC
-T	Medium Temperature	1: Normal 2: High Temperature
-A	Installment type	1: thread 2: flange 3: clamp 4: customer specified
-	Size of installment	e.g. for A1, -1/2BSP or -M20*1.5 etc.; for A3, -2" or 3" etc.

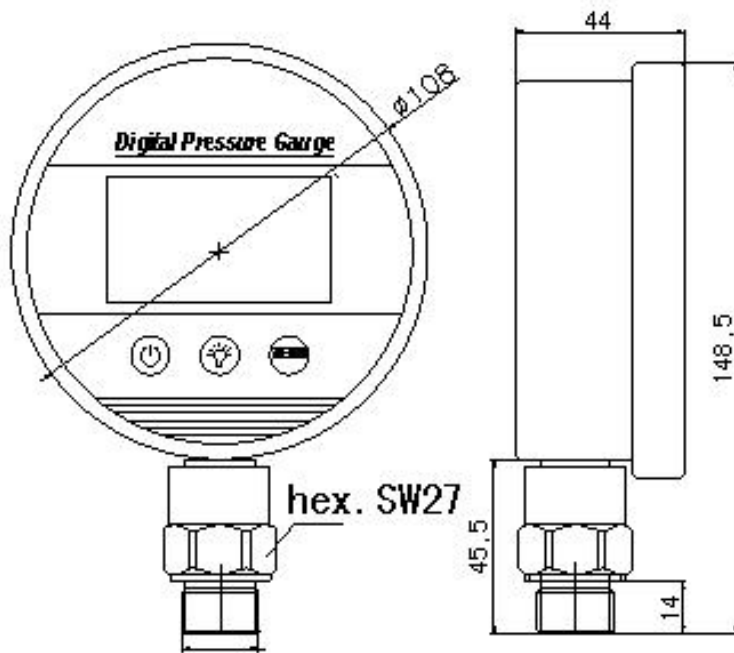**MC2080Y-80:**
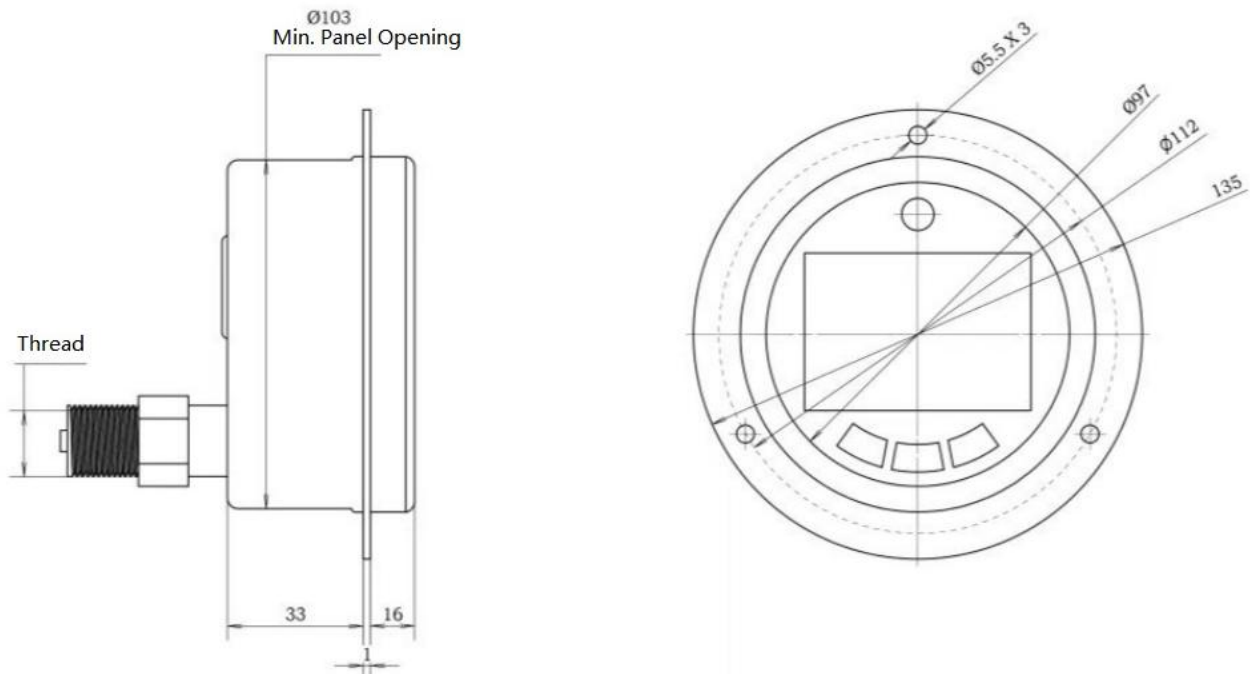
MC2080Y-150:

MC2080Y-Ex:

MC2080Y-Z:

Dimensions

MC2080Y-100:

MC2080Y-Z:

STRONG M&C

Operating instructions

Take MC2080Y-80 as example:

S key: backlight switch / shift

M key: menu setting / confirmation

P 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 automatically record the maximum and minimum pressure values as example:

1-1 Stress Prompt Description

MPA Mpa   **bAR** bar   **KPA** Kpa

mH2O mH2o   **KGCm** Kg/cm²   **PSI** psi

mmH2 mmH2o   **INWC** in. WC   **mbAR** mbar

Percentage display area — — Power display area

Peak display

Max.&Min.peak — — Current pressure display

display — — Pressure unit display

MAX / MIN

2-1 Key operation instructions

Press ⏻ ---On/off

Press [UNIT ZERO] for short time --Switching pressure units

Press [UNIT ZERO] for long time--Zero calibration

Press [PEAK] for long time--Clear peak/for short time-Switch the max.and min. peak

Press [☀] for short time---Light the backlight

Press [☀] for long time---Set backlight duration

1. Press [☀] 3s

2. Press [UNIT ZERO] Switching(Digits/Ten digits)

3. Press [☀] Adjust the size of the numbers

4. Press [PEAK] Save and exit

Take MC2080Y-100 as example:

Button and its functions:

"⏻"button（"S1"）：

Press to open or close the pressure gauge.

3-second press to enter "setting "code".

At "setting" code, long time press to change the flashing digit, re-press it to confirm the change, flashing stops.

"☼"button ("S2"):

Press to open or close the back light.
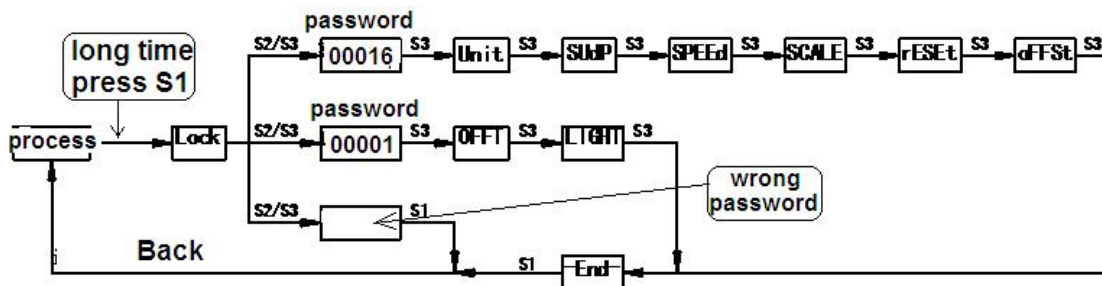
3-second press to shift the unit.

At "setting" code, to shift the digit (for example, 00000 to 00000); long time press to move back-forward (reduce), for example, from 5 to 4.

"ZERO" ("S3"):

Press to clear the max. min pressure value.

3-second pressure to clear the current pressure value.

At "set" code, long time press to move forward(add),for example, from 2 to 3.

Menus:

LOCK: Password menu, input 00001/00016. If over 30seconds no pressing, will be return back the original mode. (00001 to OFFT and LIGH menus; 00016 other menus)

OFFT: Auto-shut off set menu, available time, 01-15minutes, 0 no auto-shut off function.

LIGHT: back light time (second), available time, 5s, 10s, 15s, 30s, 60s, 120s, 180s. "0": no back light time function, "88": always back light time.

UNIT: Unit setting menu, press "ZERO" to choose the main unit for the pressure gauge.

0-MPA   1-KPA   2-PA   3-BAR   4-PSI   5-KGF(KG/CM2)   6-MMH(mmH2O)

7-MH2(mH2O)   8-TOR   9-ATM   10-does not show its unit

SUDP: Small screen showing menu, can choose any of below value.

"0"---"PK" the peak value；   "1"---"LOW" the lowest value；

"2"----"HIG" the highest value；   "3"---"℃"the current temperature at ℃

SPEED: recording speed menu.

T/S(times/Second): available 2,4,6,8,16,32,66,100

S/T(seconds/time): available 30,15,10,(1~5)

SCALE: the min display resolution, available 1~9. For example, when your pressure range is 0-500bar, the factory set the min display resolution as 0.1bar,so when showing pressure value, its display will be like 356.30bar, 489.10bar.

OFFST: Temperature correction menu. When the temperature value in the Small screen is different from the real temperature, can correct by adding(by pressing ZERO button)or reducing(by pressing ☀ button) between -10.0℃～10.0℃.

DSAL: Over-pressure warning menu.

"1" --Yes", when showing value is 125% higher or 25% lower of pressure range, it will flash as a warning.

"0" -"NO", the warning function is closed.

RESET: Press to the factory mode.

"0" -"NO" ,not to the factory-calibrated mode.

"1"-"yES" to the factory-calibrated code.

(This function is available only when exiting from "-End-"menu and save the change)

How to set:

When the pressure gauge is open,

Long press "⏻"button, when "lock" shows in the small screen, input 00001/00016, then press "⏻ "button to confirm, then into menu-setting situation,

Press "☀"button to choose your desired menu,

Press "⏻"button to get the permission to change the value (when the digit is flashing),

Short press "☀"button and "ZERO" button to change the value,

Short press "⏻"button to confirm the change (when the digit stops flashing),

Choose "end-"menu and press "⏻"button to confirm, then keep or not keep the change.

Take MC2080Y-Ex 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

"offt": 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.