

WSY-X Digital Pressure Gauge



WSY-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°C

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

Connection size: M20×1.5; G¹/₂"; ¹/₂" 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)

WSY-	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.

WSY-80:



WSY-150:



WSY-Ex:

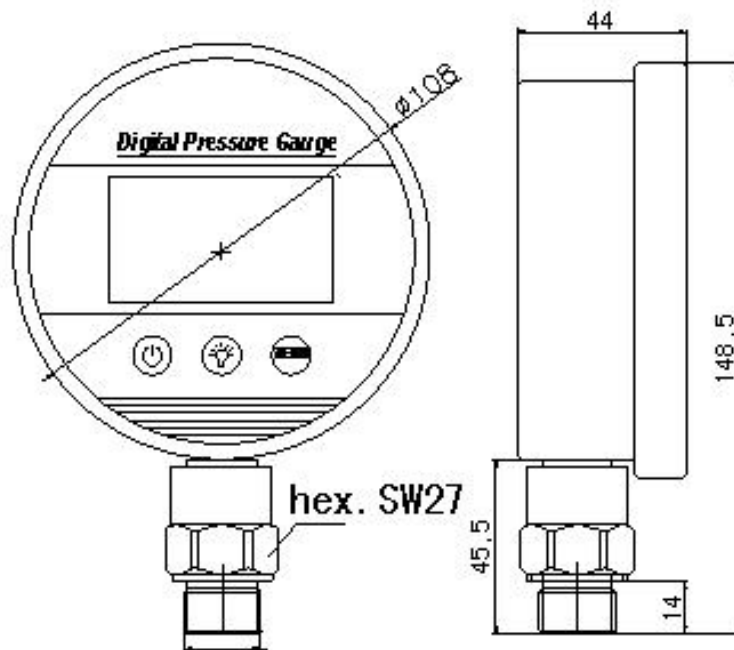


WSY-Z:

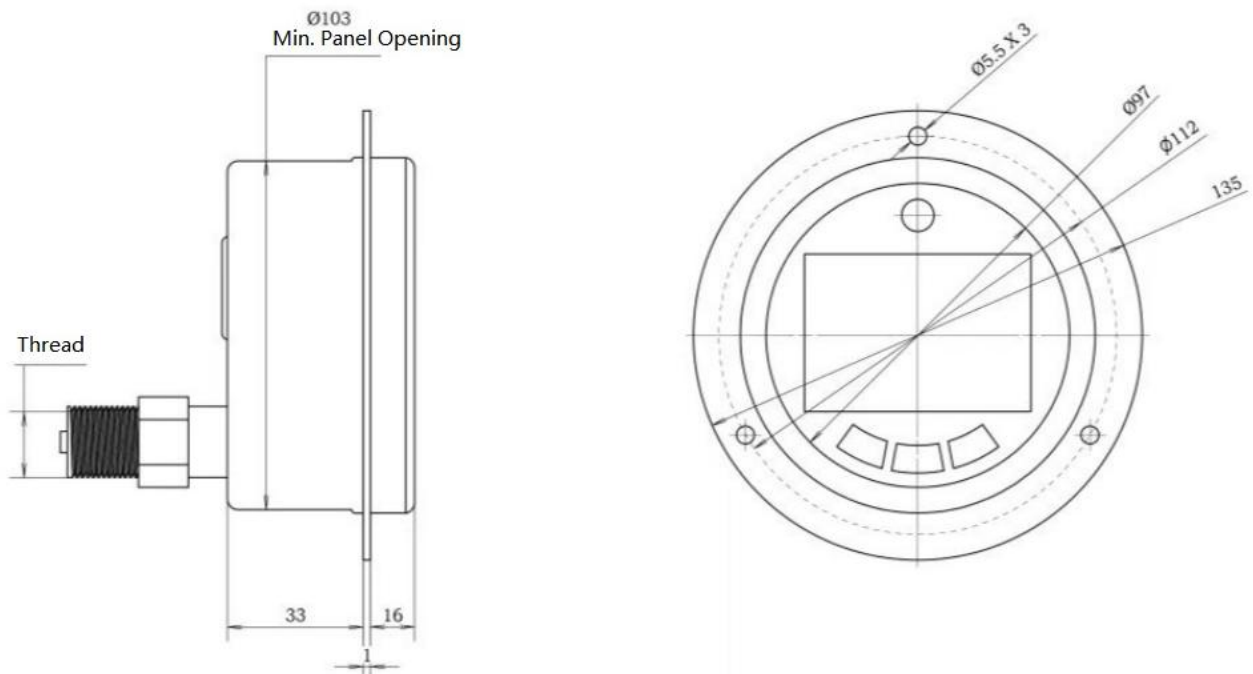


Dimensions

WSY-100:



WSY-Z:



Operating instructions

Take WSY-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




2-1 Key operation instructions


Press  ---On/off

Press  for short time --Switching pressure units

Press  for long time--Zero calibration


Press  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  Switching(Digits/Ten digits)

3. Press  Adjust the size of the numbers

4. Press  Save and exit

Take WSY-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.

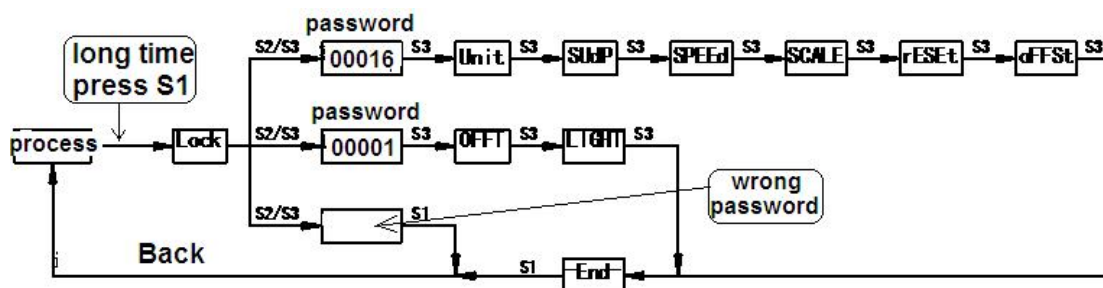
At “setting” code, to shift the digit (for example, 00000 to 00000); long time press to move back-forward (reduce), for example, from 5 to 4.

“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”---“°C”the current temperature at °C

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 $-10.0^{\circ}\text{C} \sim 10.0^{\circ}\text{C}$.

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 WSY-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.