

Product Advantages

- Small Size
- Working Temperature: -40°C to 125°C
- Range: 5/10/20/40/100/200/300/400/500/700/1000 kPa
- Linearity: 0.3% (typical)
- Low Cost, High Reliability

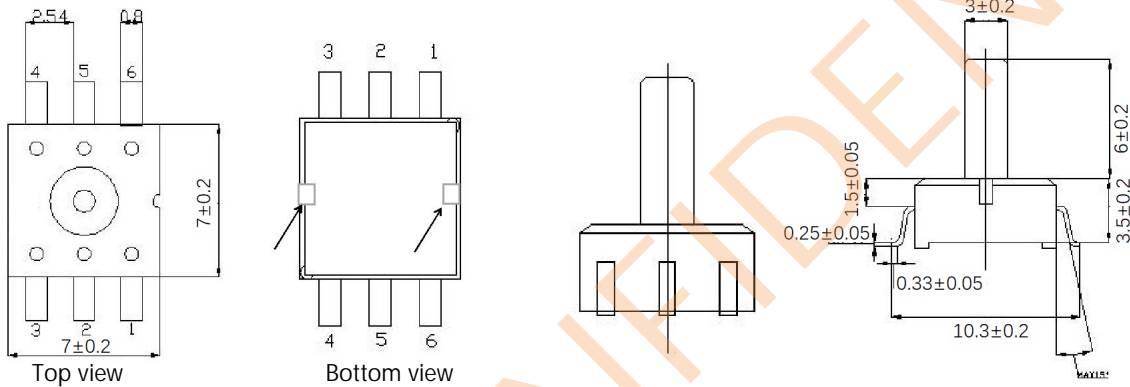
Applications

- Medical
- Consumer Electronics
- Industrial Control
- Gauge Pressure Sensor Systems

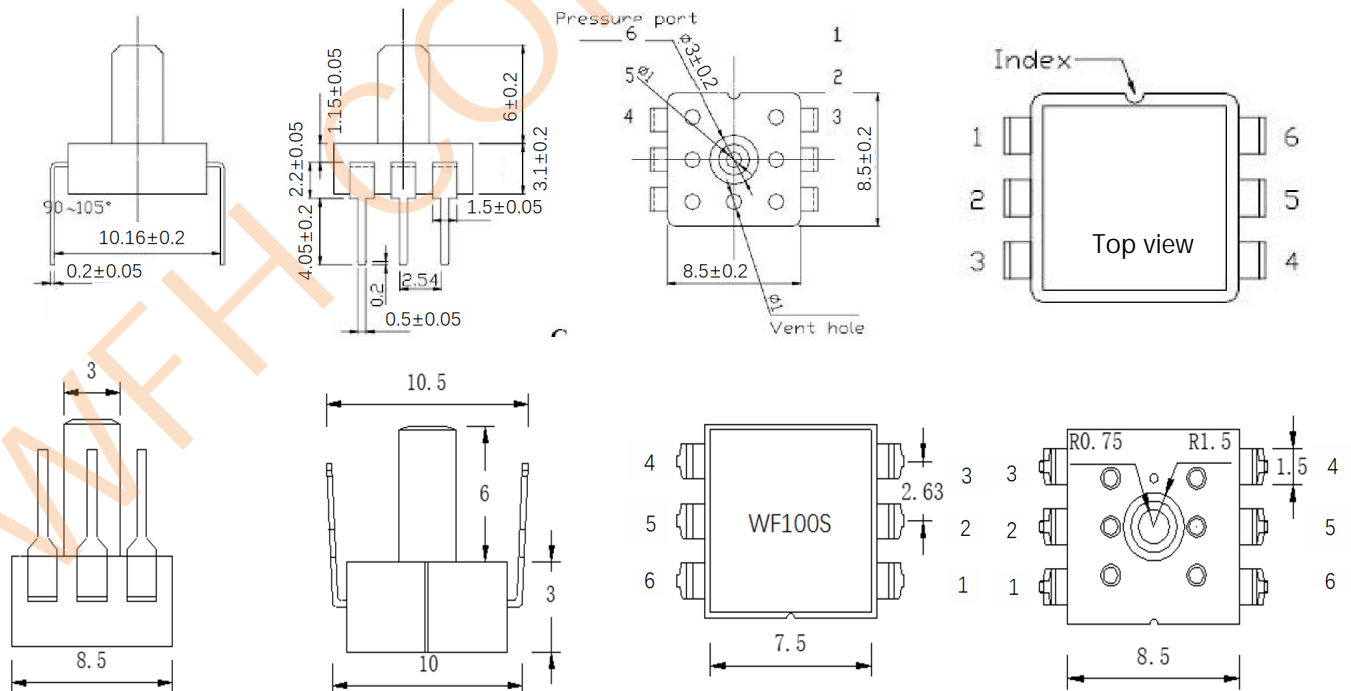
Product Introduction

The WF100S series gauge pressure sensor is a diffused silicon piezoresistive pressure sensor in a DIP/SMD package. This product is widely used in non-corrosive, non-conductive pressure environments and has good repeatability and long-term working stability.

Dimensions and pin definition (unit: mm)



*The arrow points to the pressure balance hole, which is connected to the operating environment pressure and cannot be blocked, otherwise it will affect the sensor performance; the position may vary in different batches.



Pin number	Pin Definition 1	Pin Definition 2
1	GND (Power Negative or Ground)	Vout-Output—N
2	Vout+ output—P	Vs+ Power Supply Positive
3	Vs+ power supply positive	Vout+ output positive
4	Empty	Empty
5	Vout - Output Negative	GND Power Supply Negative or Ground
6	GND Power Supply Negative or Ground	Vout - Output Negative

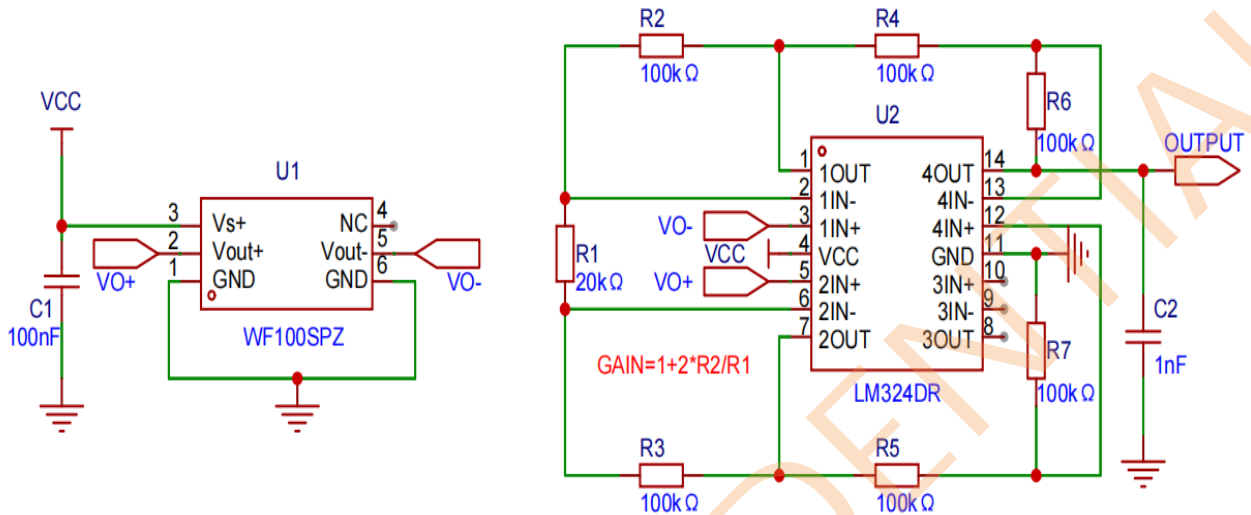
- Notice:**
1. Pin order definition is shown in the diagram above (different from ordinary ICs).
 2. When not using hardware zeroing, pins 1 and 6 must be connected together.
 3. It can work normally whether connected according to pin 1 or 2 as defined.

Data Sheet

(Chip operating environment: drive voltage $V_{S+}=5V_{dc}$; ambient temperature $T_a=30^{\circ}C$)

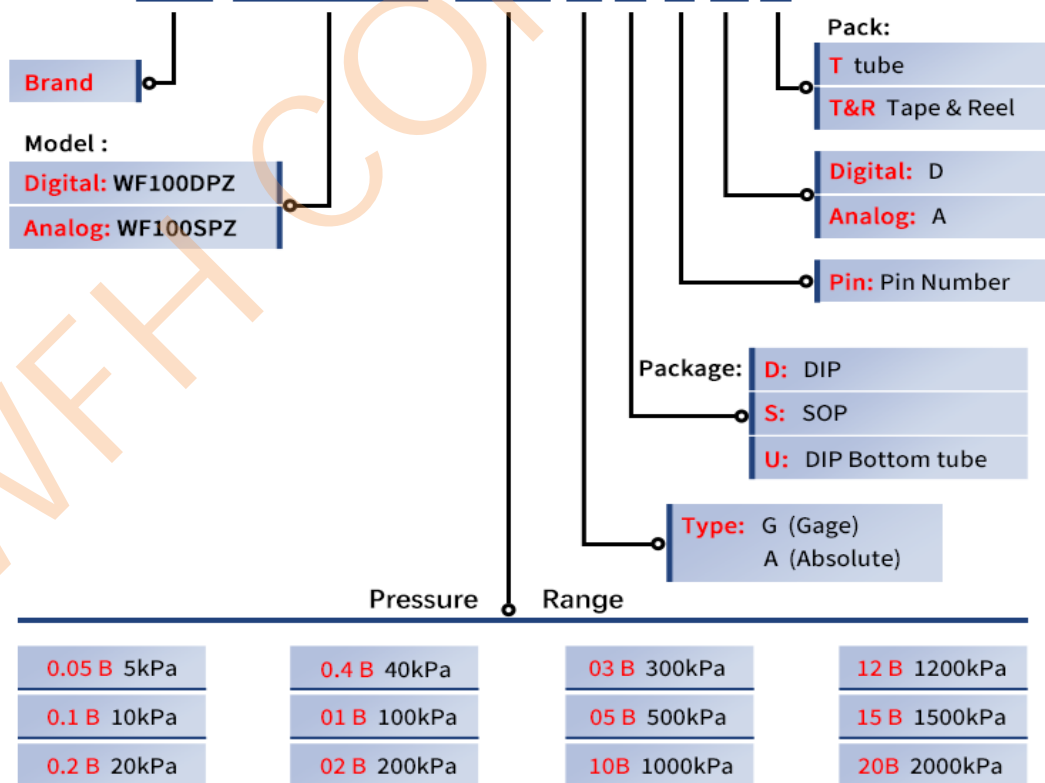
Parameters	Min	Typ	Max	Unit	
Constant Voltage Power Supply	1	5	10	V	
Constant Current Power Supply	-	1	2	mA	
Range (select)	5、10、20、40、100、200、300、700、1000			KPa	
Bridge Arm Resistor	4.5	5	5.5	k Ω	
Zero Point Output Range	- 5	0	+10	mV	
Full scale output range 20KPa	35	50	65	mV	
Full scale output range 40, 100, 200, 700KPa	60	80	100	mV	
Full scale output range 1000KPa	380	388	410	mV	
Nonlinear	0.2	0.3	0.5	%FS	
Zero Point Output Temperature Coefficient	-	-	0.5	%FS/ $^{\circ}C$	
Full-scale output temperature coefficient TCS	Constant Voltage Power Supply	-0.17	-0.22	-0.27	%FS/ $^{\circ}C$
	Constant Current Power Supply	-0.05	0.025	0.05	%FS/ $^{\circ}C$
Resistive Temperature Coefficient	1500	2000	2500	ppm/ $^{\circ}C$	
Stability	-	-	0.2	%FS/Y	
Hysteresis	-	-	0.2	%FS/Y	
Pressure overload 20, 40, 100, 200KPa			3X		
Pressure overload 700, 1000KPa					
Working Temperature	-40	-	125	$^{\circ}C$	
Storage Temperature	-40	-	150	$^{\circ}C$	

Application Reference Circuit



Model Information

WF 100SPZ 01B G D 6 A T



Welding precautions

The recommended soldering profile is shown in Figure 1 , followed by a description of the profile features in Table 3 .

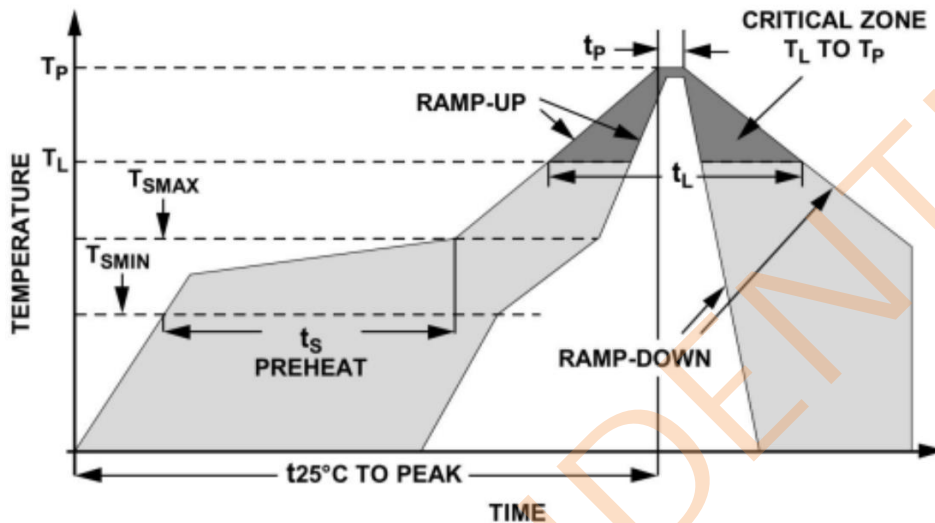


Figure 1 Recommended Soldering Profile

Table 3 Recommended Soldering Profile

Profile Feature	Pb-Free
Average ramp-up rate($T_{S MAX}$ to T_P)	3°C/sec max.
Preheat:	
-Temperature Min.($T_{S MIN}$)	150°C
-Temperature Max.($T_{S MAX}$)	200°C
-Time.($T_{S MIN}$ to $T_{S MAX}$)(t_s)	60 sec to 180 sec
Time maintained above:	
-Temperature(T_L)	217°C
-Time(t_L)	60 sec to 150 sec
Peak temperature(T_P)	260°C
Time within 5°C of actual peak temperature(T_P) ²	20 sec to 40 sec
Ramp-down rate	4°C/sec max.
Time 25°C to peak temperature	8 minutes max.