

Description

The GHPP6xxx series piezoresistive sensors use advanced design, extensive application of MEMS silicon pressure sensor that combines advanced micromachining techniques. They use the latest CMOS signal conditioning circuit to provide an accurate, high precision analog output signal that is proportional to applied pressure. The cost effective and high performance sensor is designed to meet the strict requirements of OEM customers.

The GHPP612M is fully calibrated and temperature compensated with a total error band (TEB) of less than 1.5% V_{FSS} over the compensated range. And the sensor is designed for operation from a single 5.0VDC supply.

The GHPP612M is a SOP8 packaged pressure sensor and is available to measure gauge pressure in range from 0MPa to 1.2MPa.

Features

• Operating Temperature: -40°C~125°C
• SOP8 Package
• Gauge Pressure

Applications

• Engine Control
• Instrumentation
• Industrial Control

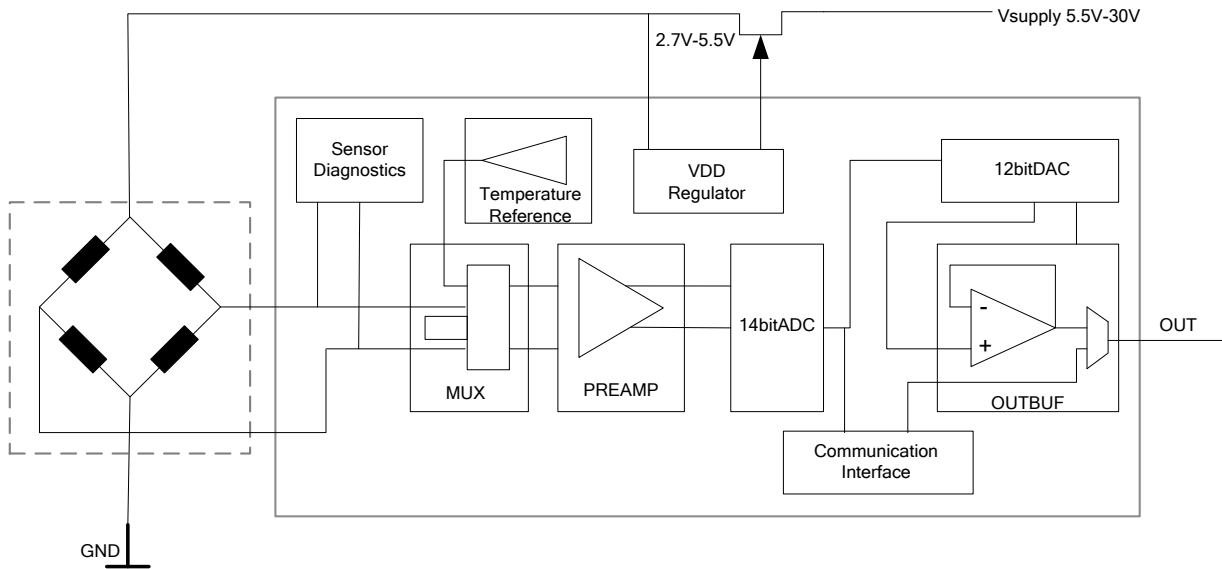
Ordering Information

Type	Package	Pressure Port	Pressure Type	Marking
GHPP612MG8	SOP8	Barb	Gauge	GHPP612MG8

ADD: NO.2 Shenma Road, Maqun Science Park, Nanjing, Jiangsu Province, China.

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Block Diagram

Operating Characteristics

Characteristics	Conditions	Min	Typ	Max	Unit	Notes
Supply Voltage	TA = 25°C	2.7	5.0	5.5	V	
Output Current	TA = 25°C	1.5	2.0	2.5	mA	
Zero Output (@5.0V, 0MPa)	TA = 25°C	0.44	0.5	0.56	V	
Full Scale Output (@5.0V, 1.2MPa)	TA = 25°C	4.44	4.5	4.56	V	
Full Scale Span (@5.0V)	TA = 25°C	3.88	4.0	4.12	V	
TEB				±1.5	%V _{FSS}	
Sensitivity			3.33		mV/kPa	
Compensated Temperature		-20		+85	°C	
Operating Temperature		-40		+125	°C	
Storage Temperature		-40		+125	°C	
Humidity	TA = 25°C	95			%RH	No Condensing
Proof Pressure	TA = 25°C	3X			FS	
Burst Pressure	TA = 25°C	5X			FS	
ESD	HBM	-2		+2	kV	EN 61000-4-2
Soldering Temperature	@265°C, 9 sec max					

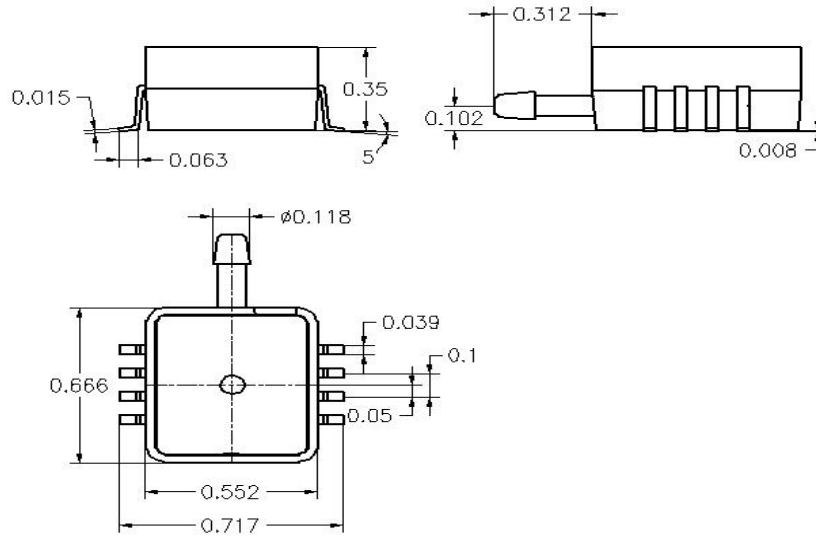
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Package Dimensions

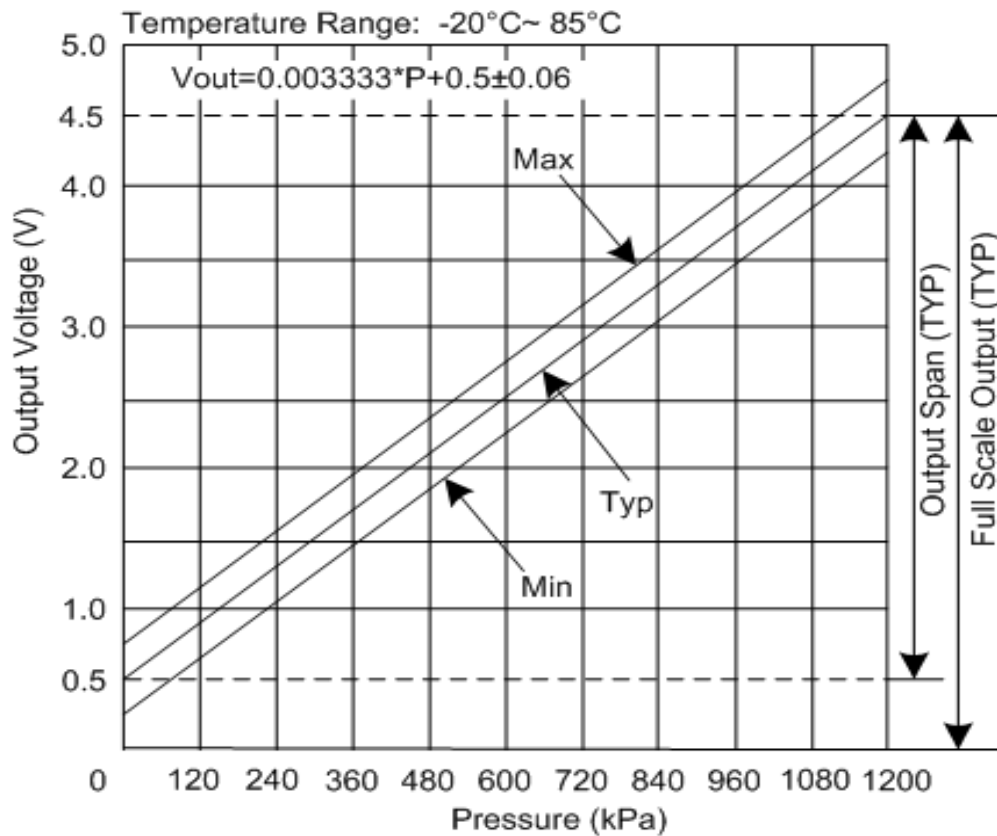
Package Dimensions of GHPP612MG8



Unit: Inch

Output Versus Pressure

Input-output Diagram of GHPP612MG8

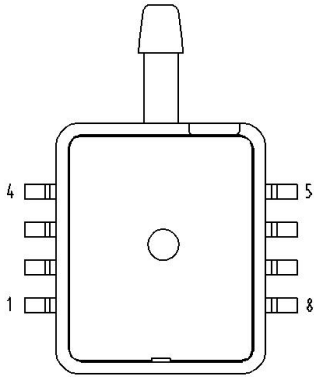


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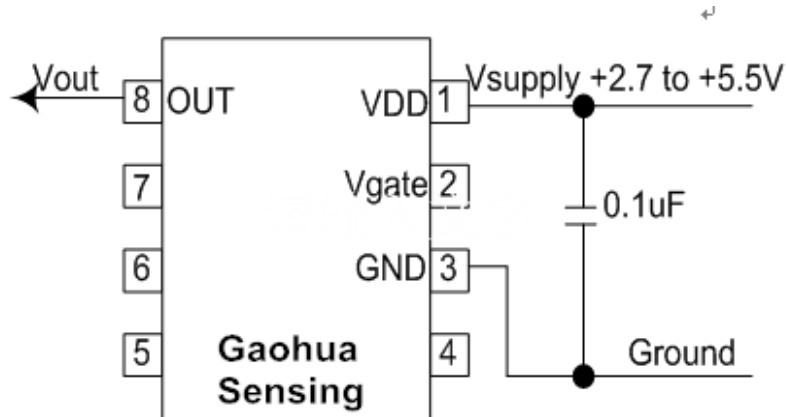
Pin Definition



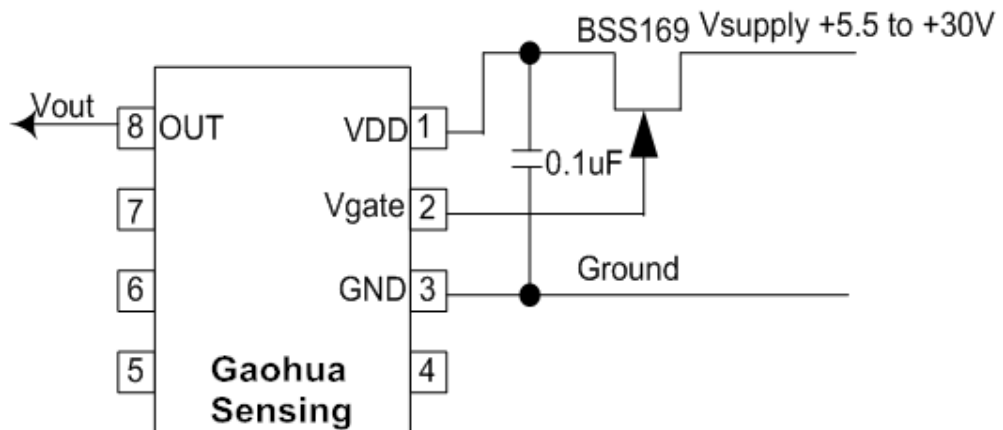
Pin	Definition	Description
1	VDD	Supply+
2	Vgate	External FET
3	GND	Ground
8	OUT	Output

Typical Application Circuit

Ratio-metric Output Circuit



Absolute Voltage Output Circuit

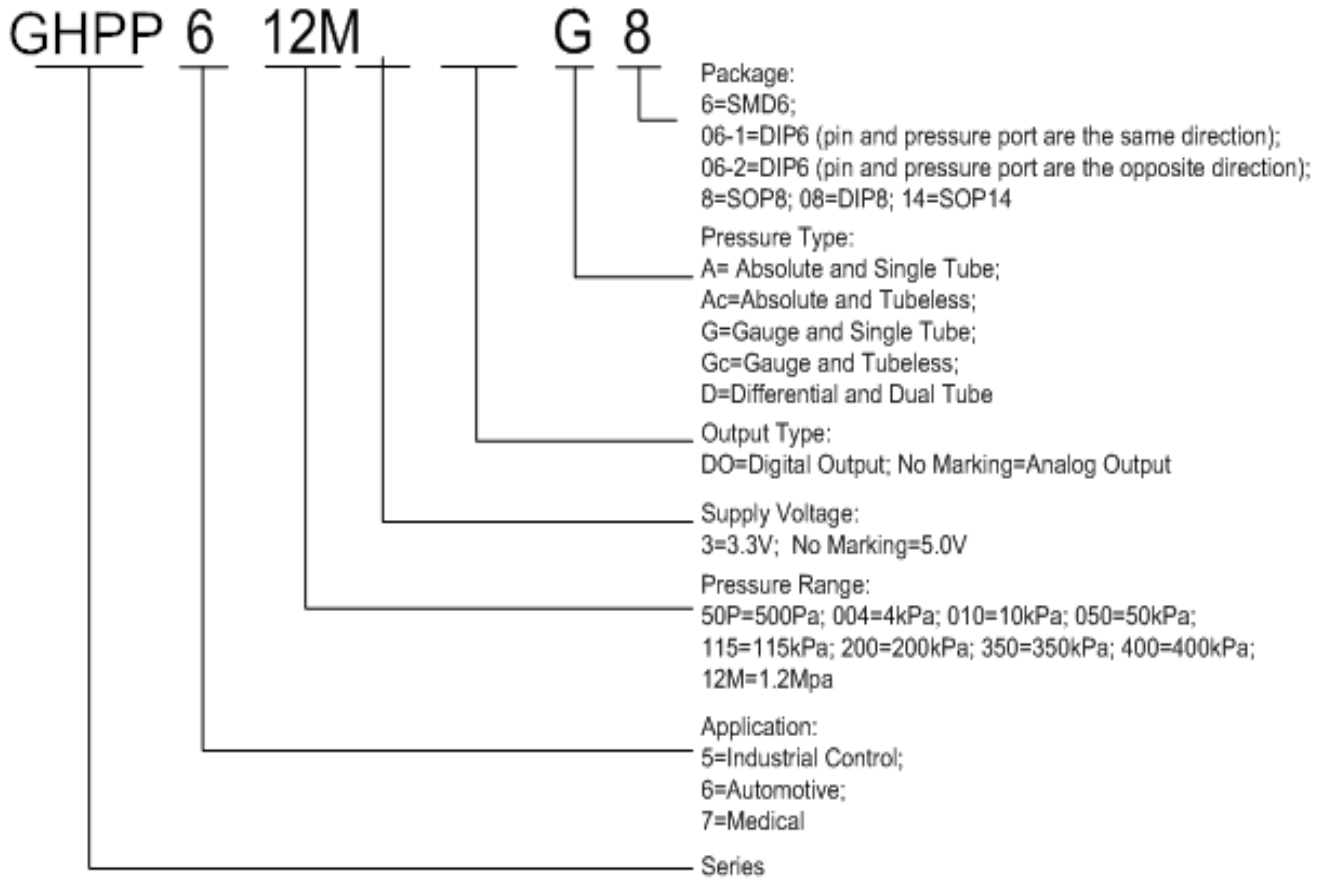


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User Guide



Notes:

All specifications are subject to change. Contact Gaohua for specifications and engineering drawings that are critical to your application. Drawings contained in this document are for reference only.

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