

SensorsX SX-PGBCC Series

Digital Display Pressure Gauge

Industrial Process Measurement | Pressure | Portable Equipment | Automation & IoT



±1.0 / 0.5 / 0.25 % FS
Accuracy

-100 kPa ... 70 MPa
Pressure Range

4-20 mA / RS-485
Output (Optional)

IP50 (IP54 w/ sleeve)
Ingress Protection

SIL / CE / RoHS
Certifications

3 V DC / 24 V DC
Power Supply

Industrial Process Measurement | Pressure | Portable | Automation & IoT

■ PRODUCT OVERVIEW

The SX-PGBCC Series digital pressure gauge provides real-time pressure measurement with a 4-digit LCD display, pressure percentage bar graph, zero reset, backlight, power on/off, unit switching, and low-battery warning functions. The gauge is available with battery power or 24 V DC supply for optional 4–20 mA or RS-485 / Modbus RTU output. The 304 stainless-steel housing and pressure connection support use with gases, liquids, oils, and other media compatible with 304 stainless steel. Typical applications include portable pressure measurement, automation equipment, indoor piping, hydraulic systems, and pressure vessel monitoring.

Typical Measurements

- Gauge pressure measurement
- Portable field pressure measurement
- Automation equipment integration
- Pressure vessel monitoring



■ KEY FEATURES

◆ Low Power Design Low-power design with 2× AAA batteries; Battery life up to 12 months depending on use conditions	◆ High stability with improved interference immunity
◆ LCD Display LCD screen with pressure percentage bar display	◆ Multi-Unit Switching Supports unit switching
◆ One-Touch Zero Reset One-touch zero reset function	◆ Optional 4-20 mA Output Optional 24 V supply with 4-20 mA output

■ TYPICAL APPLICATIONS

Industries Served

- | | | |
|----------------------|---------------------------|-----------------|
| • Portable Equipment | • Metrology & Instruments | • Indoor Piping |
|----------------------|---------------------------|-----------------|

• Water Treatment	• Petroleum	• Chemical
• Machinery	• Hydraulics	

■ PERFORMANCE SPECIFICATIONS

Measurement

Measurement Principle	Sensor (piezoresistive chip)
Pressure Range	-100 kPa to 0–10 kPa to 0–70 MPa (–14.5 psi to 0–1.45 psi to 0–1015 psi) [Max. 0–160 MPa (0–23,200 psi) optional — confirm with factory]
Overload	1.5 – 2 × full-scale range
Dial Diameter	65 mm (2.56 in)

Accuracy

Accuracy	1.0 % FS / 0.5 % FS / 0.25 % FS
----------	---------------------------------

Stability

Long-Term Stability	≤ 0.2 % FS / year
---------------------	-------------------

Display

Display Type	4-digit LCD with pressure percentage bar
--------------	--

■ ELECTRICAL SPECIFICATIONS

Power

Power Supply	3 V DC (2× AAA batteries) or 24 V DC
--------------	--------------------------------------

Output Signal

Analog Output	4 – 20 mA (optional; requires 24 V supply)
Digital Communication	RS-485 / Modbus RTU (optional; requires 24 V supply)

EMC

EMC Compatibility	Interference immunity per IEC 61326
-------------------	-------------------------------------

■ ENVIRONMENTAL SPECIFICATIONS

Temperature

Operating Temperature	-10 °C to +60 °C (+14 °F to +140 °F) (Optional: -20 °C to +150 °C / -4 °F to +302 °F)
-----------------------	---

Mechanical & Environmental

Ingress Protection	IP50 per IEC 60529 (IP54 with protective sleeve)
--------------------	--

Weight & Housing

Housing Material	304 Stainless Steel (housing and pressure connection)
------------------	---

■ PROCESS CONNECTIONS & WETTED MATERIALS

Pressure Connection

Standard Thread	G 1/4 Male / M14 Male / Custom thread (304 Stainless Steel)
-----------------	---

Materials in Contact with Medium

Wetted Parts Material	304 Stainless Steel
Compatible Media	Gases, liquids, oils, and other media non-corrosive to stainless steel

■ COMMUNICATION PROTOCOLS

RS-485 / Modbus RTU (Optional — requires 24 V supply)

RS-485 Modbus

Interface	RS-485
Output Format	Modbus RTU

※ Source datasheet does not specify baud rates or register map. HART and Profibus PA are not available on this product. Contact factory for full Modbus RTU documentation.

■ CERTIFICATIONS & APPROVALS

General Compliance

RoHS	RoHS compliant
CE Marking	CE marked
SIL	Safety Integrity Level capable

Explosion Protection

Explosion-proof (EX)	ATEX/IECEX
----------------------	------------

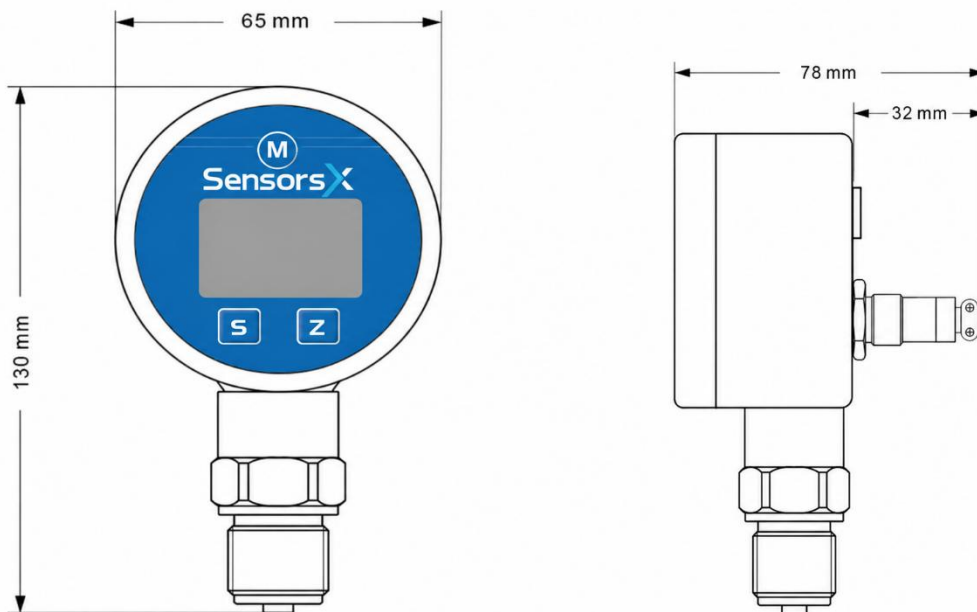
Standards

EMC Standard	IEC 61326
Ingress Protection	IEC 60529 (IP50 standard / IP54 with sleeve)

※ Certificate numbers and exact protection codes depend on specific product configuration. Contact SensorsX Technology Inc. for the current approval certificate applicable to your order.

MECHANICAL DIMENSIONS

Gauge Body



※ All dimensions in mm. Radial (LC) and axial (BC) mounting orientations available — see Ordering Information.

ORDERING INFORMATION

Complete model number example: **SX-PGBCC-6510LCP2AG14M07**

Dial Diameter

65	65 mm (2.56 in)
-----------	-----------------

Accuracy

10	0.1 % FS ★ [available for selected pressure ranges only — confirm with factory]
05	0.5 % FS
02	0.25 % FS ★ [available for selected pressure ranges only — confirm with factory]

Mounting Orientation

LC	Radial — bottom / side process connection
BC	Axial — back process connection

Power Supply

P2	24 V DC
-----------	---------

Output	
R	RS-485 / Modbus RTU
A	4 – 20 mA
Pressure Connection	
G14M	G 1/4 Male (ISO 228-1 parallel thread)
M20	M20 × 1.5 Male (ISO 261 metric thread)
N14M	1/4"-18 NPT Male (ASME B1.20.1)
G12M	G 1/2 Male (ISO 228-1 parallel thread)
N12M	1/2"-14 NPT Male (ASME B1.20.1)
Pressure Range	
01	–1 ... 0 bar (gauge) –100 ... 0 kPa –14.50 ... 0 psi
02	0 ... 1 bar (gauge) 0 ... 100 kPa 0 ... 14.50 psi
03	0 ... 2 bar (gauge) 0 ... 200 kPa 0 ... 29.0 psi
04	0 ... 4 bar (gauge) 0 ... 400 kPa 0 ... 58.0 psi
05	0 ... 10 bar (gauge) 0 ... 1 MPa 0 ... 145 psi
06	0 ... 16 bar (gauge) 0 ... 1.6 MPa 0 ... 232 psi
07	0 ... 25 bar (gauge) 0 ... 2.5 MPa 0 ... 363 psi
08	0 ... 40 bar (gauge) 0 ... 4 MPa 0 ... 580 psi
09	0 ... 60 bar (gauge) 0 ... 6 MPa 0 ... 870 psi
0A	0 ... 100 bar (gauge) 0 ... 10 MPa 0 ... 1,450 psi
0B	0 ... 160 bar (gauge) 0 ... 16 MPa 0 ... 2,321 psi
0C	0 ... 250 bar (gauge) 0 ... 25 MPa 0 ... 3,626 psi
0D	0 ... 400 bar (gauge) 0 ... 40 MPa 0 ... 5,802 psi
0E	0 ... 600 bar (gauge) 0 ... 60 MPa 0 ... 8,702 psi
0F	0 ... 700 bar (gauge) 0 ... 70 MPa 0 ... 10,153 psi
Customized	
D	Customized — specify requirements in order remarks

※ Accuracy codes 10 (0.1 % FS) and 02 (0.25 % FS) are marked as available for selected pressure ranges only in the source selection table. Confirm applicable pressure ranges with factory before specifying.