

TECHNOLOGY

HOLYKELL®

CWY122
PRESSURE
• DATASHEET •

1. Pressure Measurement 2. Level Measurement 3. Temperature Measurement
4. Flow Measurement 5. Display & Control Instruments
6. Wireless Monitoring System 7. Velocity Measurement

CWY122 Digital Pressure Gauge

Description

CWY122 Series Digital Pressure Gauge is a versatile, portable instrument designed for high-precision measurement of pressure, voltage, and current. It excels in pressure leak detection and pressure switch testing, and also features environmental temperature measurement, time display, and a DC24V power output. It includes a built-in six-digit high-precision digital voltmeter & ammeter with additional functionalities such as pressure peak recording, file storage, and leak testing.

CWY122 can communicate with host computers via RS485 or RS232 interfaces, allowing real-time data transmission to dedicated calibration software for data recording, automatic table generation, error calculation, and printout of calibration data.



It is suitable for both field and laboratory use, and can be connected to fully automatic pressure calibration rigs as an external pressure module, or integrated with various pressure sources to form a comprehensive pressure calibration system. CWY122 Series is ideal for calibrating pressure transmitters, pressure switches, precision pressure gauges, general pressure gauges, blood pressure monitors, and pressure sensors, widely used in industries such as aerospace, construction, metallurgy, power, petroleum, chemical, food, pharmaceuticals, metrology, and instrumentation manufacturing.

Key Features

- Versatile measurement capabilities to measure pressure, voltage, and current with high precision, supporting various testing and calibration needs.
- Includes pressure leak detection, pressure switch testing, environmental temperature measurement, and a DC24V power output.
- Equipped with a six-digit high-precision digital voltmeter & ammeter for accurate readings.
- Flexible data handling and communicate via RS485 or RS232 for real-time data transmission & integration with calibration software for data management and analysis.
- Suitable for both field and laboratory use, compatible with automatic pressure calibration rigs and various pressure sources for comprehensive calibration systems.

Specifications

Measuring range	(-0.1~250)MPa by customized		
Accuracy	±0.1%F.S(typical);±0.05%F.S/±0.02%F.S(by customized)		
Power supply	Battery		
	5V power adapter(AC220V to DC5V/1A, USB-T plug, meter has a charging indicator light: red for charging & green when fully charged)		
Electrical connection	Standard Φ4mm jack		
Output connection	Standard Φ4mm jack		
Charging connection	USB-T type socket;		
	RS485/RS232 connection: Standard DB9 socket		
Pressure interface	Standard gauge interface M20×1.5mm		
	Differential pressure gauge interface: Tail-type quick connector, compatible with inner diameter 4mm PVC or silicone hose; Pressure fittings customizable		
Ambient temperature	0~50℃		
Relative humidity	<95% (no condensation)		
Atmospheric pressure	86~106kPa		
Storage temperature	-20~70℃		
Item	Range	Resolution	Index
Voltage measurement	(-50~50)V	0.1mV	±(0.01%R.D+0.005%FS)
Current measurement	(-25~25)mA	0.1uA	±(0.01%R.D+0.005%FS)
24V output	(24±0.5)V, maximum load capacity 50mA		
Communication interface	RS485 or RS232 by default(Please specify when ordering)		
Baud rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, or 115200.		
Start bit	1		
Data length	8 bits		
Stop bit	1		
Instrument address	0-199, single-byte address		
RS485 communication Distance	For wire diameter >0.6 mm, max communication distance≤ 1000 meters		
RS232 communication Distance	For wire diameter >0.6 mm, max communication distance 3~5m		
Weight	0.7Kg		

How to Order

Measuring range selection table for gauge pressure				
Pressure Range	Accuracy	Medium	Pressure Type	Burst Pressure
(-100~0)kPa	0.02/0.05	Gas	Gauge	3x
(0~16)kPa	0.02/0.05	Gas	Gauge	3x
(0~25)kPa	0.02/0.05	Gas	Gauge	3x
(0~40)kPa	0.02/0.05	Gas	Gauge	3x
(0~60)kPa	0.02/0.05	Gas	Gauge	3x
(0~100)kPa	0.02/0.05	Gas	Gauge/Absolute	3x
(0~160)kPa	0.02/0.05	Gas	Gauge/Absolute	3x
(0~250)kPa	0.02/0.05	Gas	Gauge/Absolute	3x
(0~400)kPa	0.02/0.05	Gas	Gauge/Absolute	3x
(0~600)kPa	0.02/0.05	Gas	Gauge/Absolute	3x
(0~1)MPa	0.02/0.05	Gas/liquid	Gauge/Absolute	3x
(0~1.6)MPa	0.02/0.05	Gas/liquid	Gauge/Absolute	3x
(0~2.5)MPa	0.02/0.05	Gas/liquid	Gauge/Absolute	2 A
(0~4)MPa	0.02/0.05	Gas/liquid	Gauge/Absolute	3x
(0~6)MPa	0.02/0.05	Gas/liquid	Gauge/Absolute	3x
(0~10)MPa	0.02/0.05	Gas/liquid	Gauge	3x
(0~16)MPa	0.02/0.05	Gas/liquid	Gauge	3x
(0~25)MPa	0.02/0.05	Gas/liquid	Gauge	3x
(0~40)MPa	0.02/0.05	Gas/liquid	Gauge	3x
(0~60)MPa	0.02/0.05	Gas/liquid	Gauge	3x
(0~100)MPa	0.02/0.05	Gas/liquid	Gauge	1.5x
(0~160)MPa	0.02/0.05	Gas/liquid	Gauge	1.5x
(0~250)MPa	0.02/0.05	Gas/liquid	Gauge	1.5x

Measuring range selection table for composite pressure				
Pressure Range	Accuracy	Medium	Pressure Type	Burst Pressure
±10kPa	0.02/0.05	Gas	Gauge	4x
±16kPa	0.02/0.05	Gas	Gauge	4x
±25kPa	0.02/0.05	Gas	Gauge	4x
±40kPa	0.02/0.05	Gas	Gauge	4x
±60kPa	0.02/0.05	Gas	Gauge	4x
±100kPa	0.02/0.05	Gas	Gauge	4x
(-100~160)kPa	0.02/0.05	Gas	Gauge	4x
(-100~250)kPa	0.02/0.05	Gas	Gauge	4x
(-100~400)kPa	0.02/0.05	Gas	Gauge	4x
(-100~600)kPa	0.02/0.05	Gas	Gauge	4 tA
(-0.1~1)MPa	0.02/0.05	Gas	Gauge	4x
(-0.1~1.6)MPa	0.02/0.05	Gas	Gauge	4x
(-0.1~2.5)MPa	0.02/0.05	Gas	Gauge	4x
(-0.1~4)MPa	0.02/0.05	Gas	Gauge	4x
(-0.1~6)MPa	0.02/0.05	Gas	Gauge	4x

Measuring range selection table for differential pressure				
Pressure Range	Accuracy	Medium	Pressure Type	Burst Pressure
0~500Pa/±500Pa	0.1/0.05	Gas	Differential pressure	4x
0~1kPa/±1kPa	0.1/0.05	Gas	Differential pressure	4x
0~1.6kPa/±1.6kPa	0.01/0.05	Gas	Differential pressure	4x
0~2.5kPa/±2.5kPa	0.05/0.02	Gas	Differential pressure	4x
0~6kPa/±6kPa	0.05/0.02	Gas	Differential pressure	4x
0~10kPa/±10kPa	0.05/0.02	Gas	Differential pressure	4x
0~ 16kPa/±16kPa	0.05/0.02	Gas	Differential pressure	4x
0~25kPa/±25kPa	0.05/0.02	Gas	Differential pressure	4x
0~ 40kPa/±40kPa	0.05/0.02	Gas	Differential pressure	4x
0~60kPa/±60kPa	0.05/0.02	Gas	Differential pressure	† A

Measuring range selection table for high static differential pressure range				
Pressure Range	Accuracy	Medium	Pressure Type	Burst Pressure
0~1kPa/±1kPa	0.1/0.05	Gas/liquid	Differential pressure	4x
0~1.6kPa/±1.6kPa	0.1/0.05	Gas/liquid	Differential pressure	4x
0~2.5kPa/±2.5kPa	0.1/0.05	Gas/liquid	Differential pressure	4x
0~6kPa/±6kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
0~10kPa/±10kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
0~16kPa/±16kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
0~25kPa/±25kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
0~40kPa/±40kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
0~60kPa/±60kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
0~100kPa/±100kPa	0.05/0.02	Gas/liquid	Differential pressure	4 tA
(-100~160)kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
(-100~250)kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
(-100~400)kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
(-100~600)kPa	0.05/0.02	Gas/liquid	Differential pressure	4x
(-0.1~1)MPa	0.05/0.02	Gas/liquid	Differential pressure	4x
(-0.1~1.6)MPa	0.05/0.02	Gas/liquid	Differential pressure	4x
(-0.1~2.5)MPa	0.05/0.02	Gas/liquid	Differential pressure	4x

Note: Special range can be customized, maximum static pressure 20MPa, high and low pressure interfaces are M20X1.5 external thread interfaces

Note:

- [1] Automatic temperature compensation range: (0~50)°C;
- [2] The pressure medium must be non-corrosive; Calibration cycle: 1 year;
- [3] Non-standard ranges can be customized.