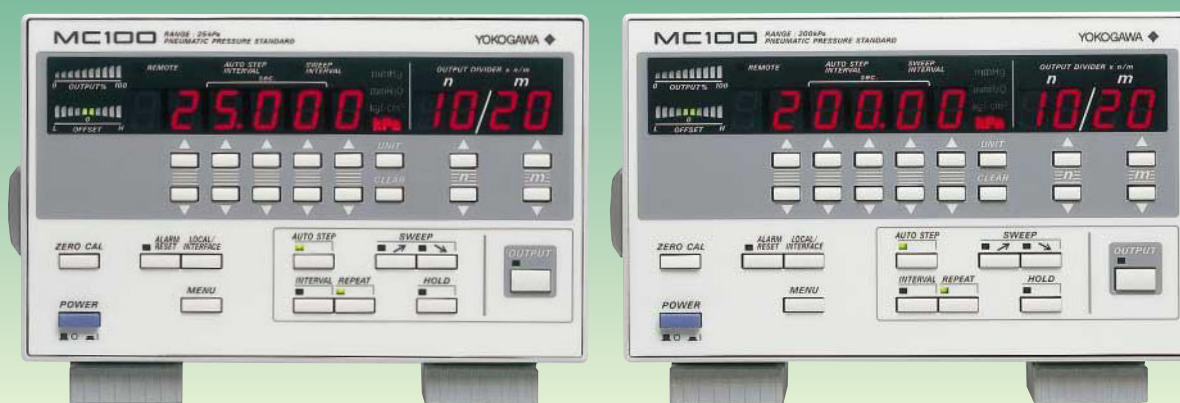


Highly accurate
With Silicon Resonant Sensor
 $\pm 0.05\%$

Pneumatic Pressure Standard

MC100



- High accuracy $\pm(0.05\%$ of full scale)
- Excellent stability provided by silicon resonant sensor
- Temperature coefficient: $\pm 0.002\%$ of full scale / $^{\circ}\text{C}$ (span)
- Divided output function with as many as 20 steps
- Auto-step output function
- Sweep output function
- Offset monitor function to present deviation from final value

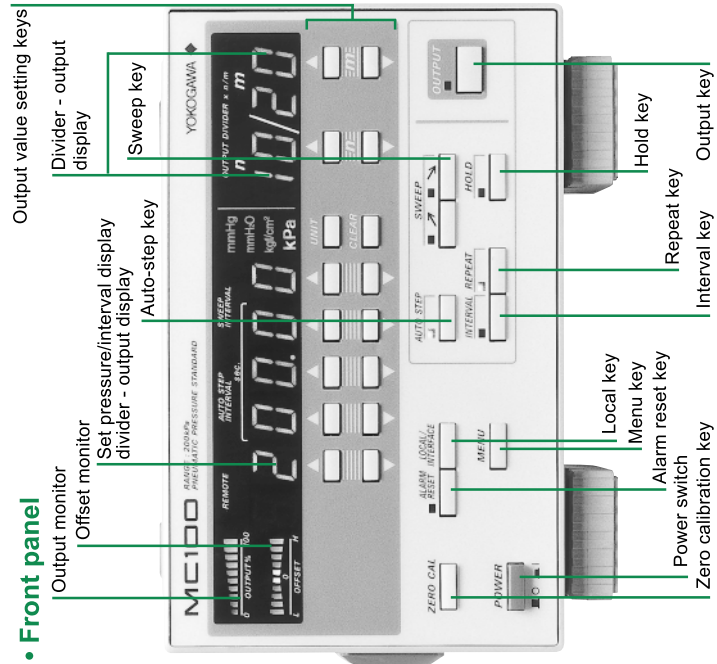
High speed · high accuracy and long-term stability provided by silicon resonant

The MC100 Series of Pneumatic Pressure Standard provides high accuracy and excellent reliability using a proprietary silicon resonant sensor developed by Yokogawa. Various pressure instruments such as pressure sensors, industrial transmitters, and pressure switches, as well as sphygmomanometers and other medical devices face severe price competition and

demands for improved accuracy. The MC100 Series answers these demands and helps manufacturers improve production speed and reduce production costs. Furthermore, the high accuracy of the MC100 Series makes it well-suited for calibration and maintenance of pressure instrumentation.

Names of parts and functions

• Front panel



• Rear panel



High performance and reliability

- High accuracy $\pm(0.05\%$ of full scale)
- Low temperature coefficient
 - Zero point: $\pm 0.003\%$ of full scale/ $^{\circ}\text{C}$
 - Span: $\pm 0.002\%$ of full scale/ $^{\circ}\text{C}$
- Excellent stability

Useful functions

- Divided output function with as many as 20 steps
- Auto-step output function
- Sweep output function
- Offset monitor function to present deviation from final value

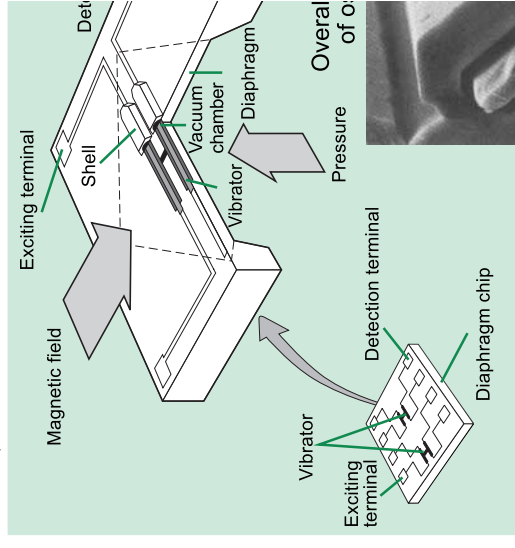
Calibration system

National standard (Japan)

National standard (Japan)

Silicon resonant sensor

(winner of the Okochi Memorial Prize, Keidanren Ch



A vibrator, formed using semiconductor process technology on a silicon wafer, is driven by a permanent magnet. When pressure is applied to the silicon diaphragm, the vibrator is distorted, causing the resonant frequency

Specifications

- Supplied output range** : 0 to 25 kPa gauge (767401)
0 to 200 kPa gauge (767402)
- Minimum set resolution** : 0.001 kPa (767401)
0.01 kPa (767402)
- Supplied output** : $50 \pm 10\text{kPa}$ (767401)
 $280 \pm 20\text{kPa}$ (767402)
- Max. allowable input** : 100 kPa gauge (767401)
500 kPa gauge (767402)
- Accuracy**^{*1} :
Including calibration accuracy : $\pm 0.05\%$ of full scale (at 23 $^{\circ}\text{C}$)
Not including calibration accuracy : $\pm 0.045\%$ of full scale
- Output noise** : $\pm 0.02\%$ of full scale
- Effect of mounting orientation** :
Forward/backward incline of 90° : $\pm 0.1\%$ of full scale (767401)
 $\pm 0.01\%$ of full scale (767402)
- Sideways incline of 30° : $\pm 2.5\%$ of full scale (767401)
 $\pm 0.2\%$ of full scale (767402)

Model and suffix codes

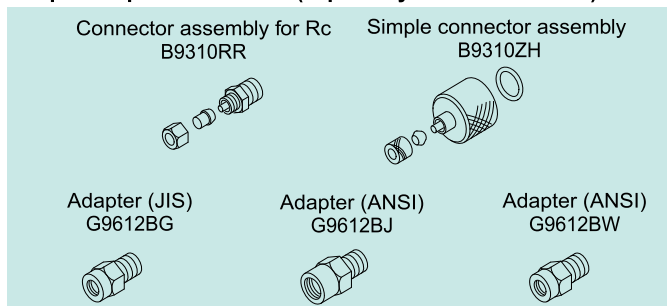
Main unit

Model	Suffix code	Description
767401	—	Pneumatic pressure Standard (25 kPa range model)
767402	—	Pneumatic pressure Standard (200 kPa range model)
Pressure unit	—U1	kPa
	—U2	kPa, kgf/cm ² , mmH ₂ O, mmHg
	—U3	kPa, inH ₂ O, inHg, psi
Communication function	—C1	GP-IB interface
	—C2	RS-232 interface
I/O connection unit	—P1	Rc 1/4
	—P2	1/4 NPT female screw
Power cord	—D	UL/CSA standard
	—F	VDE standard
	—R	SAA standard
	—Q	BS standard

Accessories (sold separately)

Product	Model	Suffix code	Description
Connector assembly kit	B9310RR	—	For $\phi 4 \times \phi 6$ vinyl pipe
Quick connector assembly	B9310ZH	—	For $\phi 4 \times \phi 6$ vinyl pipe
Adapter connector	G9612BG	—	JIS, R1/4-Rc1/8
Adapter connector	G9612BJ	—	ANSI, R1/4-1/4 NPT female screw
Adapter connector	G9612BW	—	ANSI, R1/4-1/8 NPT female screw

Input adapter connectors (separately sold accessories)



Contracted separately when required

Item	Code number	Count
Test certificate	DOC TC	—
Instruction manual	DOC IM	One additional
Drawings	3984 03	Up to 5

NOTICE

- Before operating the product, read the instruction manual thoroughly for proper and safe operation.
- If this product is for use with a system requiring safeguards that directly involve personnel safety, please contact the Yokogawa sales offices.

YOKOGAWA

YOKOGAWA ELECTRIC CORPORATION

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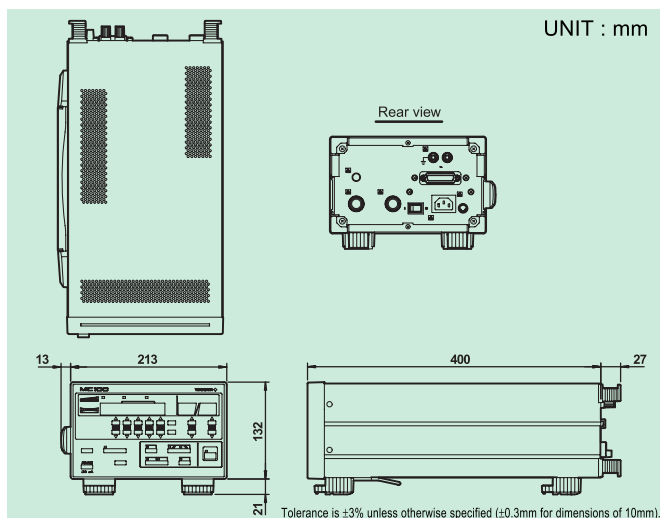
YOKOGAWA ELECTRIC CORPORATION

Test & Measurement Business Division

155 Takamuro-cho, Kofu-shi, Yamanashi-ken, 400-8558 Japan

Phone: 81-552-43-0310, Fax: 81-552-43-0396

External dimensions



Related products

Mini Manometer MT10

- Highly reliable (uses silicon-resonant sensor)
- Compact
- Accurate
 $\pm(0.04\% \text{ of reading} + 0.03\% \text{ of full scale})$
(130 kPa model)
- Three ranges: 130 kPa, 700 kPa, 3000 kPa
- Simple to operate
- Data hold function
- RS-232C interface



Compact CAL CA100

- High accuracy (DC voltage generation:
 $\pm 0.02\%$ of setting)
- DC voltage/current, thermocouple/RTD output, frequency generation and resistance generation functions
- Independent generation/measurement functions
- Compact size
- 24 VDC power supply function handy for maintenance of transmitters, etc.
- Sink & source function for current supply and absorption



Digital Manometer MT100 series

- High accuracy: $\pm 0.02\%$ of rdg
- Full lineup available for measuring minute pressures (1 kPa) to very high pressures (3000 kPa)
- Can be powered by a 12 VDC power supply.
- GP-IB/RS-232-C interface
- The following two digital manometers are available: MT120 which has the DMM function (5 V/20 mA DC) and 24 V DC power supply; MT110 which has only pressure measurement functions.



Represented by :

MM-07E