


Mini-manometer

# MT10

YOKOGAWA 

With Silicon-Resonant Sensor



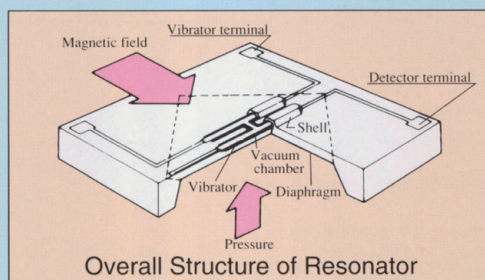
## The mini-manometer with high reliability

### Features

- High reliability (with Silicon-Resonant Sensor)
- Compact
- Accuracy:
  - (0.04% of rdg + 0.03% of F.S.) (130 kPa model)
- Available in 3 models: 130 kPa, 700 kPa, and 3000 kPa.
- Data hold function
- RS-232-C interface
- Comes with a convenient carrying case.

### Silicon-Resonant Sensor

The pressure sensor employs a silicon-resonant sensor which was developed using Yokogawa's most up-to-date silicon micro-forming technology. The detector, which uses a silicon monocrystal, has superior reproducibility and undergoes less secular change than the conventional metal sensor, thus permitting highly stable measurement.



### High reliability and stability

The pressure measurement sensor uses a silicon-resonant sensor for which Yokogawa received the Ogouchi Memorial Prize and also the Prize of the Chairman of Federation of Economic Organizations. Compared to the conventional metal sensor, it has high reproducibility and long-term stability of characteristics, thus ensuring highly stable measurement.

### Small and lightweight

MT10 is small and has a mass of about 700 g. It is thus suitable for use at the process industry site and for diagnosing factory equipment as well as for research and development.

## Specifications

Model	265302	265303	265304
Kind of pressure	Gauge pressure		
Range *3 (accuracy guarantee range)	0~130kPa	0~700kPa	0~3000kPa
	0~1.3256kgf/cm <sup>2</sup>	0~7.138kgf/cm <sup>2</sup>	0~30.59kgf/cm <sup>2</sup>
	0~13256mmH <sub>2</sub> O	_____	_____
	0~975.1mmHg	0~5250mmHg	_____
	0~521.9 inH <sub>2</sub> O	0~2810 inH <sub>2</sub> O	0~12044 inH <sub>2</sub> O
	0~38.39 inHg	0~206.7 inHg	0~885.9 inHg
	0~18.85 psi	0~101.5 psi	0~435.1 psi
	0~1300 mbar	0~7000 mbar	0~30.00 bar
Measurement indication range	-2.5~110% of FS		
Accuracy (Horizontally mounted, 23±3°C, zero point adjusted)	±(0.04% of rdg + 0.03% of FS)	±0.1% of FS	
Resolution	0.01kPa	0.1kPa	1kPa
Max allowable input	500kPa	1000kPa	4500kPa
Internal volume	Approx. 2 cm <sup>3</sup>		
Effect of temperature	Zero point	±0.02% of FS/10°C max	
	±0.02% of FS/10°C	±0.02% of FS/10°C max	
Effect of mounting direction	±0.1% of FS	±0.02% of FS	±0.01% of FS
Gas leakage	10 <sup>-5</sup> cm <sup>3</sup> /s max		
Measurement fluid	Gas only (non-flammable, non-explosive, non-toxic, non-corrosive)		
Measurement fluid temperature	5~50°C		
Pressure sensor	Silicon resonant sensor		
Pressure sensing element	Diaphragm		
Pressure display unit	kPa, kg/cm <sup>2</sup> , mmH <sub>2</sub> O, mmHg, inH <sub>2</sub> O, inHg, psi, mbar(bar)		
Calibration interval	1 year		
Input connection	Rc1/4 or NPT 1/4		
Material of measurement section	SUS316 stainless steel, Hastelloy C276		

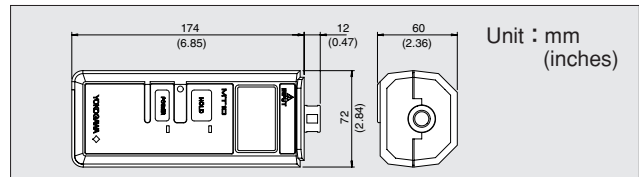
## Model and Suffix Codes

### Main unit

Model	Suffix code	Description
265302	.....	
265303	.....	
265304	.....	
Pressure display unit*	-U1	kPa
	-U2	kgf/cm <sup>2</sup>
	-U3	mmH <sub>2</sub> O
	-U4	mmHg
	-U5	inH <sub>2</sub> O
	-U6	inHg
	-U7	psi
	-U8	mbar
Input connection	-P1	Rc1/4
	-P2	NPT 1/4 female

\* -U3 cannot be specified for 265303 and -U3 and -U4, cannot be specified for 265304.

## Dimensions



## Common Specifications

Power source:	UM-3 (AA or R6) batteries Primary battery 1.5 V x four, or secondary battery 1.2 V x four [Continuous operation: Approx. 100 hours (when alkaline batteries are used)] AC adapter (100 to 120/220 to 240 VAC, 50/60 Hz, Output 15 V/1.33 A) (optional)
Communication:	RS-232-C Transmission method: Half-duplex transmission brain protocol Transmission rate: 1200 bits/s
Display:	LCD display
Display update interval:	Approx. 0.5 s/update
Response time:	Approx. 4 s (until the accuracy falls within the accuracy range)
Other functions:	Comes with data hold function that holds indicated pressure value, and zero adjustment function.
Warmup time:	1 minute max
Insulation resistance:	500 VDC/20 MΩ or higher (between AC line and case) (when dedicated power kit is used)

Withstand voltage:	1500 VAC/minute (between AC line and case) (when dedicated power kit is used)
Operating temperature/humidity range:	5 to 40°C, 20 to 80% RH (No condensation allowed)
Storage temperature/humidity range:	25 to 70°C, 5 to 95% RH
External dimensions, mass:	Approx. 72 (W) x 174 (H) x 60 (D) mm, (excluding input connection section) Approx. 700 g (including batteries)
Accessories:	Carrying case (B9926CZ) x one UM-3 (AA or R6) batteries (A1070EB) x four Sealing tape (X9910DG) x one Wrench (H19) (B9926CW) x one Monkey wrench (150 mm) (B9926CX) x one Allen wrench (H2.5) (B9926CY) x one Instruction manual x one

## Related products



### MT210 Digital Manometer

- High accuracy: ±(0.01% of reading + 3 digits) (130 kPa range model)
- A wide range pressures, from a low differential pressure of 1 kPa to a high gauge pressure of 3000 kPa, and absolute pressure of 130 kPa

- D/A conversion output, comparator output, and external trigger input (optional)
- Both gases and liquids measurable
- External attachable battery pack (optional)



### MC100 Pneumatic Pressure Standard

- High accuracy: ±0.05% of full scale
- Output ranges and resolution  
0 to 200 kPa (resolution 0.01 kPa)  
0 to 25 kPa (resolution 0.001 kPa)
- Functions useful for instrument calibration

- Divider output, auto-step output, and sweep output
- Excellent temperature coefficient  
Zero point: ±0.003% of full scale/°C  
Span: ±0.002% of full scale/°C

### Caution



\* To ensure that you use this product correctly and safely, read the instruction manual carefully.

<http://tmi.yokogawa.com/products/other-test-measurement-instruments/>

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