

# HVG-2020B 1,000 Torr ~ 0.1 mTorr VACUUM GAUGE



컴팩트하고 사용하기 편한 HVG-2020B 진공 측정 센서는 1,000 Torr(133,322.3 Pa)에서 0.1 mTorr(0.1333 Pa) 미만의 매우 범위에서 안정적이고 정확한 측정을 제공합니다. HVG-2020B는 매우 간편하게 설치할 수 있습니다. Touch Display는 다양한 Views와 작동 옵션을 제공합니다. 가스 접촉부는 스테인레스 스틸 제질로 되어 있고 다양한 현장 상황에 적합한 Analog / Digital output 를 제공하고 있으며, Linear 한 Analog output 을 제공하고 있기 때문에 고가의 Capacitance Manometers 보다 경제적입니다. HVG-2020B 는 고급 압력 저항센서를 기반으로 진동막에 가스에 의해 좌우되는 힘을 감지해 압력과 압전 재료 변화의 저항값을 측정하기 때문에 가스 성분이 바뀌어도 보정 작업 없이 측정이 가능합니다.

## Features (특징)

- Two Sensors in One Small Package
- Range 0.1 mTorr ~ 1,000 Torr
- Excellent Accuracy
- \*  $\geq 10$  Torr :  $\pm(0.1\% \text{ of Reading} + 0.5 \text{ Torr})$
- \*  $< 10$  Torr :  $\pm(10\% \text{ of Reading} + 0.1 \text{ mTorr})$
- Touchscreen Display / Control Option
- USB
- 0~1 VDC, 0~5 VDC, 0~10 VDC Log & Linear
- 0~20mA, 4~20mA Log & Linear
- RS232 / RS485
- Status LEDs
- Multiple Views
- \* Pressure vs. Time Plot/Bar Graph/Set Point Status)
- NIST Traceable Calibration
- \* Certificate / Data Sheet Option

## Applications and Industries (응용 분야)

- Rough Vacuum Monitoring
- Vacuum Metallurgy
- Semiconductor
- Thin Film Coating
- Refrigeration & Air Conditioning
- Freeze Drying
- Oil Reprocessing

## Pressure Unit (압력 단위)

기준 STP : 0°C & 760 Torr

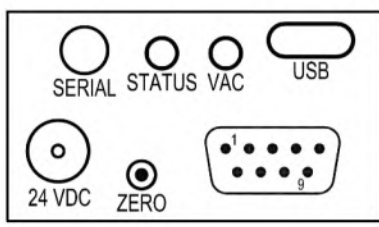
· atm	1
· bar	1.01325
· mbar	1,013.25
· psi	14.696
· Pa	101,325
· hPa	1,013.25

## Specifications

### HVG-2020B

Range	0.1 mTorr ~ 1,000 Torr	*Note 1 : Includes non-linearity, hysteresis,
Accuracy (*Note : 1)	$\geq 10$ Torr : $\pm(0.1\% \text{ of Reading} + 0.2 \text{ Torr})$ $< 10$ Torr : $\pm(10\% \text{ of Reading} + 0.2 \text{ mTorr})$	repeatability at ambient operating temperature after 2 hours warm up followed by zero adjustment.
Maximum Overpressure	2,000 Torr	
Proof Pressure	25 psig (*Note : 2)	*Note 2 : The max pressure that can be applied without changing performance.
Burst Pressure	45 psig	
Operating Temperature	-20~70°C	
Warm up time (*Note : 3)	30 min (typical)	*Note 3 : Warm-up time to within rated accuracy at atmosphere.
Warm up time (*Note : 4)	2 hr (typical)	
Analog Output (voltage)	0~1 VDC, 0~5 VDC, 0~10 VDC Linear & Log	
Analog Output (current)	0~20 mA, 4~20 mA Linear & Log	*Note 4 : Warm-up time for zero adjustment.
Wetted Materials	304 and 316L SS, Glass, Ni, Au	
Analog Connector	9 Pin D-sub	
Digital Connector	Bayonet, 4-conductor TRRS 3.5mm	
Input Voltage	12~36 VDC	
Process Control Setpoints	Dual TTL (High & Low)	
Power (With Display)	2.0 W (Max) @ 36 VDC < 1.5 W (Typ) @ 24 VDC	
Power (No Display)	1.8 W (Max) @ 35 VDC < 1.3 W (Typ) @ 24 VDC	
CE Mark	EN55011; EN61326, EN61010	
RoHS Compliant	YES	

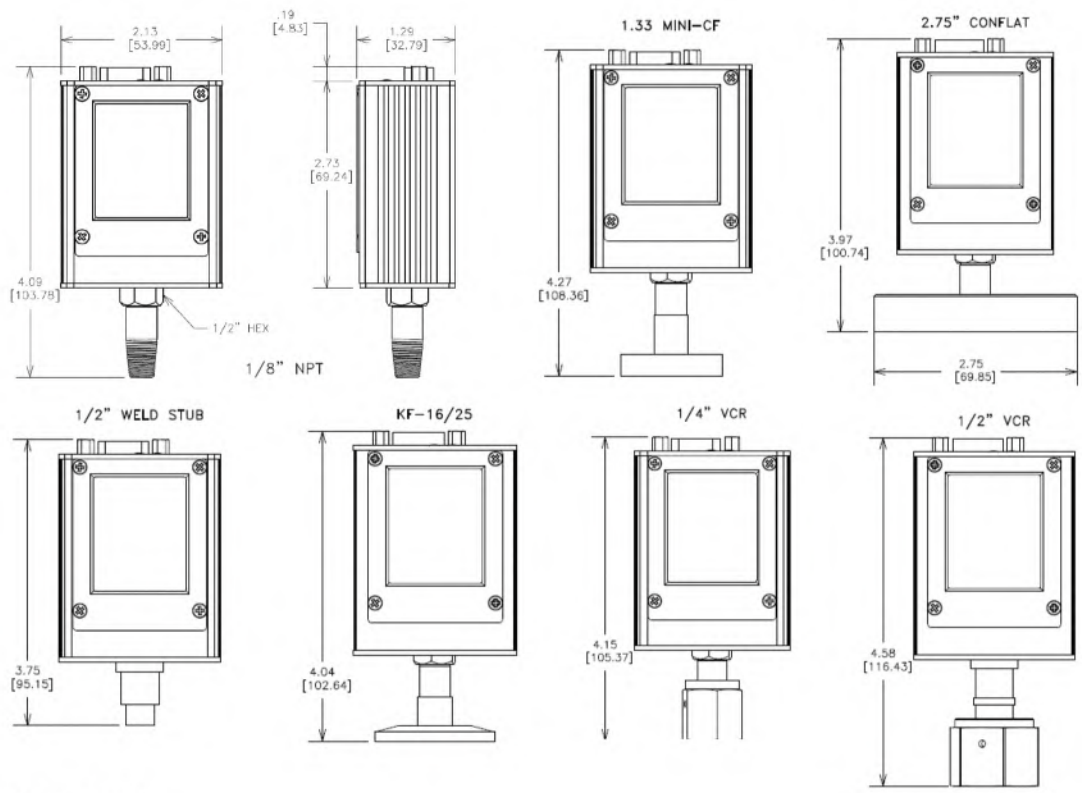
### Push-button Operation



### Pinout Diagram

Pin #	
1	High Setpoint
2	Low Setpoint
3	+ Power (12-36 VDC)
4	Power/Digital Common
5	Analog Output
6	Case Ground
7	Tx out (TTL)
8	Analog Common
9	Rx in (TTL)

### Outline Drawings



### Selection chart

