

## Model CM Precision Pressure Gauge



### FEATURES

- $\pm 0.1\%$  F.S. accuracy – ASME B40.1, Grade 4A
- Ranges from 15-100,000 psi
- Solid front protective case
- High and low pressure limit stop
- Mirror band dial to eliminate parallax reading error
- Optional temperature compensation maintains 0.1% accuracy from  $-25$  to  $+125^\circ\text{F}$

Heise precision pressure gauges have continually set the quality standard by which all other pressure gauges are measured. Behind every Heise® product is a modern manufacturing facility certified to ISO9001 with NIST traceable standards maintained in accordance with MIL-STD-45662 and ANSI/NCSS Z-540.

But far beyond any specifications are the unwritten standards of excellence which have been set by our craftsmen. They have become the single most important ingredient in our success. It is this pride, skill and dedication that has become our history, and you can see it in every Heise precision pressure gauge that we make.

The Heise® precision pressure gauge case style features a solid-front aluminum case with a hinged ring. The dial has a polished mirror band for pointer reflection to prevent parallax error and is available in 6," 8½," 12," and 16" dial sizes in both lower and back connection. Pointer is a balanced-friction adjustable design with red knife edge tip for easy reading.

### PRODUCT SPECIFICATIONS

<b>HEISE® Model No.</b>	CM			
<b>Dial Size:</b>	6"	8½"	12"	16"
<b>Scale Length:</b>	18"	25"	31½"	43¼"
<b>Pointer Travel:</b>	350°			
<b>Case:</b>	Cast aluminum, solid front. Blow out rear cover. Integral panel mounting flange			
<b>Lens:</b>	Polycarbonate,			
<b>Dial:</b>	Black figures on white, high resolution with mirror band			
<b>Pointer:</b>	Knife edge pointer to eliminate parallax errors			
<b>Bourdon Tube:</b>	Bleeder tipped for easy flushing or purging			
<b>Socket Connections:</b>	¼ NPT Female – Back Connect Autoclave F250-C (Aminco 45-11310) – Back Connect			
<b>Ranges:</b>	Gauge pressure - standard			
<b>Repeatability:</b>	$\pm 0.02\%$ F.S.			
<b>Hysteresis:</b>	$\pm 0.1\%$ F.S. <sup>(1)</sup>			
<b>Total Accuracy:</b>	$\pm 0.1\%$ F.S. Includes Certificate of NIST traceability			

### OPTIONAL FEATURES

- Custom scales/units of measure
- Thermal compensation (maintains 0.1% accuracy from  $-25$  to  $+125^\circ\text{F}$ )
- Slotted link (protects movement during sudden pressure release)
- Wall mounting brackets
- Peak load indicator
- Dual scale dial
- Compound, vacuum and absolute ranges (requires manual barometric compensation)

### OPTIONAL PRESSURE INLET TYPE AND LOCATION

- ½ NPT – Male or Female – Back or Bottom
- ¼ NPT – Male or Female – Back or Bottom
- AND10050-4 – Female Only – Back or Bottom
- Autoclave F250-C – Female Only – Back or Bottom
- Aminco 45-11310 – Female Only – Back or Bottom
- MS33649-4 – Female Only – Back or Bottom
- MS33656-4 – Male Only – Back or Bottom
- MS-16142 – Female Only – Back or Bottom
- Mil-G-18997D – Male Only – Back or Bottom

<sup>(1)</sup> Hysteresis may exceed  $\pm 0.1\%$  of span for ranges equal to or greater than 75,000 psi. ( $\pm 0.3\%$  typical not to exceed  $\pm 0.4\%$  of span).

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### MATERIAL AND RANGE

#### Standard Ranges

##### psi

- Beryllium copper: 0-15 through 0-40 psi
- 403 SS: 0-50 through 0-100,000 psi

#### Inches Mercury

- Beryllium copper: 0-30 through 0-75 psi
- 403 SS: 0-100 through 0-1000 psi

#### Vacuum

- Beryllium copper: -30-0

#### Compound

- Beryllium copper: 15" Hg-15" Hg through 30" Hg-60 Hg"
- 403 SS: 30" Hg-100" Hg through 30" Hg-150 Hg"
- Beryllium copper: 30" Hg-15 psi through 30" Hg-30 psi
- 403 SS: 30" Hg-60 psi through 30" Hg-300 psi

#### Inches Water

- Beryllium copper: 0-450 through 0-1000

### METRIC

#### Millimeters Mercury

- Beryllium copper: 0-750 through 0-2000
- 403 SS: 0-2500 through 0-5000

#### bar – kg/cm<sup>2</sup> – kp/cm<sup>2</sup>

- Beryllium copper: 0-1 through 0-2.5
- 403 SS: 0-3 through 0-7000

#### kPa

- Beryllium copper: 0-100 through 0-250
- 403 SS: 0.300 through 0-10,000

#### mPa

- 403 SS: 0-1 through 0-700

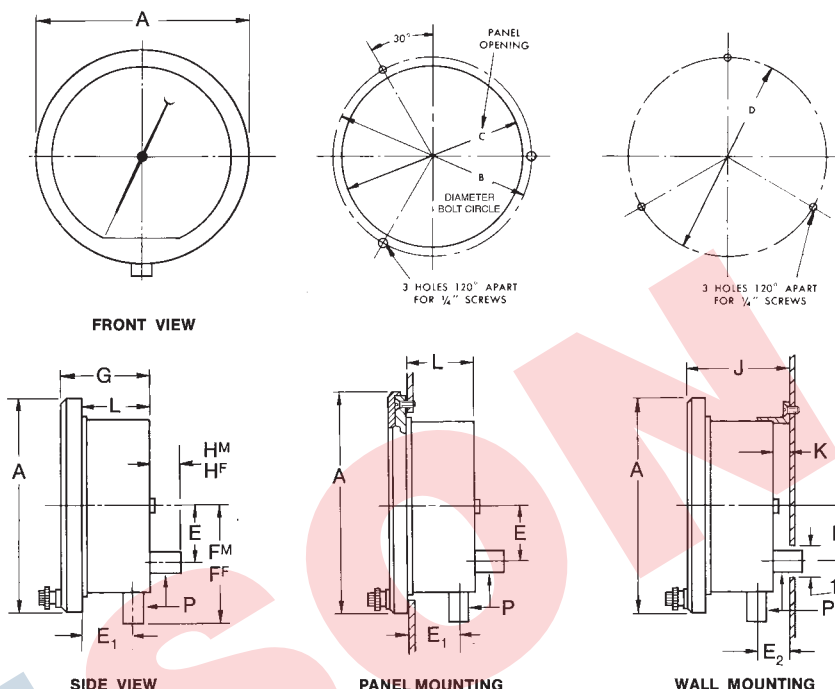
#### Vacuum

#### bar – kg/cm<sup>2</sup> – kp/cm<sup>2</sup>

- Beryllium copper: -1 to 0

#### kPa

- Beryllium copper: -100 to 0



### Model "CM" Dimensions

Size	Dim. Units	A	B	C	D	E	E <sub>1</sub>	E <sub>2</sub>	F <sub>M</sub>	F <sub>F</sub>	G	H <sub>M</sub>	H <sub>F</sub>	J	K	L
6"	in.	7 <sup>7</sup> / <sub>8</sub>	7	6 <sup>1</sup> / <sub>2</sub>	7	2	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>9</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	3 <sup>27</sup> / <sub>32</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>32</sub>
	mm	200	177.8	165.1	177.8	50.8	47.6	31.8	115.8	107.9	82.3	34.9	27	97.6	15.9	62.7
8 <sup>1</sup> / <sub>2</sub> "	in.	10 <sup>5</sup> / <sub>16</sub>	9 <sup>9</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	2	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	5 <sup>43</sup> / <sub>64</sub>	5 <sup>23</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>32</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>21</sup> / <sub>32</sub>
	mm	261.9	238.1	228.6	241.3	50.8	47.6	31.8	144	136.1	82.3	34.9	27	102.4	15.9	67.4
12"	in.	13 <sup>21</sup> / <sub>32</sub>	12 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	2	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	5 <sup>43</sup> / <sub>64</sub>	5 <sup>23</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>32</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>21</sup> / <sub>32</sub>
	mm	346.9	329.9	314.3	241.3	50.8	47.6	31.8	144	136.1	82.3	34.9	27	102.4	15.9	67.4
16"	in.	17 <sup>23</sup> / <sub>32</sub>	16 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	1 <sup>63</sup> / <sub>64</sub>	5 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>4</sub>	3 <sup>25</sup> / <sub>64</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>64</sub>	2 <sup>21</sup> / <sub>32</sub>
	mm	450.1	425.2	415.9	241.3	82.6	33.3	50.4	141.3	133.4	86.1	35.0	27.0	103.1	16.3	67.4

Inlet Pressure Connection* P	Pressure connection is illustrated in both back and bottom configurations. See page 4 for available fitting types.				
	Dial Size	6"	8 <sup>1</sup> / <sub>2</sub> "	12"	16"
Approximate Weight	Net Weight	4 <sup>1</sup> / <sub>2</sub> lbs.	7 <sup>3</sup> / <sub>4</sub> lbs.	10 <sup>3</sup> / <sub>4</sub> lbs.	14 <sup>1</sup> / <sub>4</sub> lbs.
	Shipping Weight	7 lbs.	10 lbs.	15 lbs.	21 lbs.

\*Standard Inlet Fittings: 1/4 NPT Female Back Connection for ranges up to and including 10,000 psi.

AMINCO 45-11310 or AUTOCLAVE F-250-C for ranges over 10,000 psi.