

Heise precision dial gauges

Model CC, CM, CMM

According ASME B40.1

Nominal size: 6, 8 ½, 12 and 16 inch

150, 220, 300 and 400 mm

Accuracy: Grade 4A (0,1 % F.S.)

Features

- Rugged solid front construction
- Usable to full scale
- Flushing connection on tube standard
- Zero adjustment at the front
- Easy access for calibration
- Temperature compensation optional

Ranges

-1 ... 0 bar up to 0 ... 7000 bar

-30 in. Hg ... 0 psi up to 0 ... 100.000 psi

Applications

Test benches

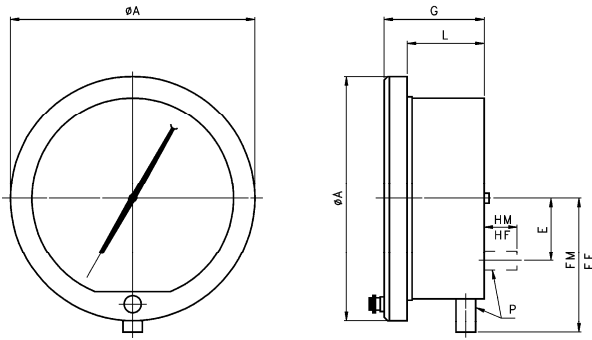
Calibration laboratories

Maintenance repair shops

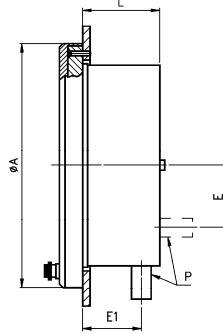


Technical specification		CC			CM				CMM			
Dial size	in inch in mm	8 ½ 220	12 300	16 400	6 150	8 ½ 220	12 300	16 400	6 150	8 ½ 220	12 300	16 400
Construction	housing ring	Solid front safety pattern with blow out at the back Hinged										
Zero adjustment		External, at the front										
Pointer travel in degree		300			350 (for ranges ≥ 2000 bar less travel)				660 (2 turns)			
Measuring principle		Bourdon tube, one piece with flush connection										
Range in bar		1 ¹⁾ 1,6 ¹⁾ 2,5 4 6 10 16 25 40 60 100 160 250 400 600 1000 ¹⁾ 1600 ¹⁾ 2500 ²⁾ 4000 ⁴⁾ 6000 ⁴⁾ 7000 ⁴⁾ -1/0 ¹⁾ Receiver 0,2/1 ¹⁾ <small>¹⁾ not for CMM, ²⁾ not for CC and CMM, ³⁾ only CC, ⁴⁾ only CM 8 ½, 12 and 16 inch, Hysteresis can exceed 0,1 %</small>										
Overpressure limit		130 % F.S., short time										
Pressure type		Gauge, vacuum, compound and absolute										
Process connection		G¼ B male, G½ B male, M20x1,5 male, M16x1,5 female ¼ NPT male, ½ NPT male according ANSI/ASME B1.20.1 9/16-18 UNF-2B Aminco Others on request										
Connection location		Lower, back										
Material	Pressure connection Tube Case & Ring Window Dial Pointer Movement	Beryllium copper (CuBe), stainless steel 403 (1.4000) and 316 (1.4401) Beryllium copper (CuBe), stainless steel 403 (1.4000) and 316 (1.4401) Cast aluminum, black painted Plexiglas, for 16 inch dial plate glass, laminated safety glass gauges with peak load indicator Aluminum, black markings on white background, with mirror band to eliminate parallax reading errors Aluminum, black, knife edge, optional red set hand or maximum pointer Massive single brass rigid casting partly integrated in housing with stainless steel ball bearings										
Accuracy		Grade 4A (0,1 % F.S.)										
Repeatability		±0,02 % F.S.										
Hysteresis		< 0,1 % of span (not for 316 (1.4401) tube)										
Sensitivity		0,01 % F.S.										
Permissible	Ambient temperature Medium temperature Storage temperature Effect	-18 ... 52 °C -18 ... 52 °C Max. 80 °C Standard 0,05 % / 10 K, optional with automatic temperature compensation max. 0,01 % / 10 K										
Protection according EN 60 529/IEC 529		IP40										
Mounting		Stem, flush, optional surface										
Weight in kg		4,0	4,9	6,5	2,0	4,0	4,9	6,5	2,0	4,0	4,9	6,5
Accessories, options		Carrying case, calibration certificates (not according DKD), slotted link										

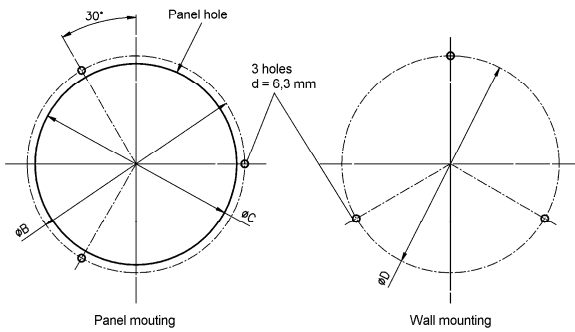
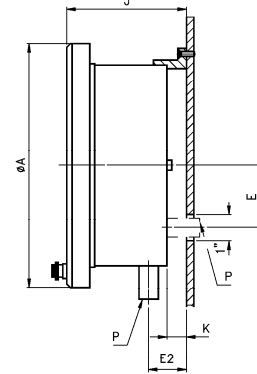
General dimensions in mm



Panel mounting



Wall mounting



Panel mounting

Wall mounting

"CC"

Dial Size	A	B	C	D	E	E1	E2	FM	FF	G	HM	HF	J	K	L
215 mm	262	238	229	241	83	33	50	141	133	86	35	27	102	16	67
300 mm	347	324	314	241	83	33	50	141	133	86	35	27	103	16	67
400 mm	450	425	416	241	83	33	50	141	133	86	35	27	103	16	67

"CM, CMM"

Dial Size	A	B	C	D	E	E1	E2	FM	FF	G	HM	HF	J	K	L
150 mm	200	178	165	178	51	48	32	116	108	82	35	27	98	16	63
215 mm	262	238	229	241	51	48	32	144	136	82	35	27	102	16	67
300 mm	347	324	314	241	51	48	32	144	136	82	35	27	102	16	67
400 mm	450	425	416	241	51	48	32	144	136	82	35	27	102	16	67

Rev.A

Order information

Size	Process connection	Pressure type	Tube material	Range	Engineering units	Dial type	Options
Type CC	Back	(G) Gauge	(S) Stainless steel 316 (1.4401) (model CC only, max. 5000 psi / 350 bar)	-1/ 0²⁾ 0,2/ 1⁴⁾	BAR	(A) 6" photo	(B) Colored dial
(A) 8,5" (215 mm)	(A) 1/8 NPT male	(A) Absolute¹⁾				(B) 8 1/2" photo	(C) Slotted link (not for vacuum)
(B) 12" (305 mm)	(B) 1/4 NPT male	(V) Vacuum	(V) Stainless steel 403 (1.4000) (standard > 2,5 bar)	0/ 1¹⁾ 0/ 1,6¹⁾ 0/ 2,5 0/ 4 0/ 6 0/ 10 0/ 16 0/ 25 0/ 40 0/ 60 0/ 100 0/ 160 0/ 250 0/ 400 0/ 600 0/ 1000 0/ 1600 0/ 2500²⁾ 0/ 4000³⁾ 0/ 6000³⁾ 0/ 7000³⁾		(C) 12" photo	(D) Temperature compensation
(C) 16" (406 mm)	(C) 1/8 NPT female	(C) Compound	(J) Beryllium copper (CuBe) (Standard ≤ 2,5 bar max. 700 bar, for type CMM max. 350 bar)			(D) 16" photo	(E) Special calibration
Type CM	(D) 1/4 NPT female						(F) Special scale
(D) 6" (152 mm)	(E) 9/16-18 UNF-2B Aminco						(G) Dual scale
(E) 8,5" (215 mm)	Lower						(H) Special cleaning
(F) 12" (305 mm)	(K) 1/8 NPT male						(M) 6" wall mounting
(G) 16" (406 mm)	(L) 1/4 NPT male						(N) 8 1/2", 12" and 16" wall mounting
Type CMM	(M) 1/8 NPT female						(I) Peak load indicator 6"
(J) 6" (152 mm)	(N) 1/4 NPT female						(J) Peak load indicator 8 1/2"
(K) 8,5" (215 mm)	(P) 9/16-18 UNF-2B Aminco						(K) Peak load indicator 12"
(L) 12" (305 mm)							(L) Peak load indicator 16"
(M) 16" (406 mm)							(6B) Oxygen cleaned
	others with adapter	¹⁾ against atmosphere		¹⁾ not for CMM ²⁾ not for CC and CMM ³⁾ only CM ≥ 8 1/2" ⁴⁾ only CC	psi and others on request		

Order example

Type	Dial size	Process connection	Pressure type	Tube material	Range	Engineering units	Dial type	Options
CM	F	L	G	V	0/400	BAR	C	D