



McDANIEL

Liquid Fillable, All Stainless Steel Utility Gauges

The rugged construction of our Series 9 All Stainless Steel gauges provides resistance to corrosive media and harsh environments.

The McDaniel Series 9 gauges feature 316 Stainless Steel wetted parts and a 304 Stainless Steel case with crimped on bezel ring. The case and socket joint is welded. Liquid fillable, in the field, or factory.

This series is ideally suited for O.E.M. and corrosive applications that require an all stainless steel gauge at an economical price.



SPECIFICATIONS

Accuracy:

ASME B40.1 standard - Grade A (2-1-2%)

Dial:

White enameled aluminum. Black figures. Sizes:

2 1/2 inches (63mm) - Model **K9**

4 inches (100mm) - Models **E9** and **G9**

Case:

304 Stainless Steel, filled or fillable.

Ring:

304 Stainless Steel crimped on. (Polished on Panel, U-Clamp, and Back connected configurations)

Pointer:

Black enameled aluminum.

Lens:

Polycarbonate.

(Laminated Safety Glass by special order.)

Precision Movement

Stainless Steel

Bourdon Tube:

316 Stainless Steel (C Form 1000 PSI & Below).
(Spiral 1500 PSI & Above).

Pressure Utilization:

300% full scale pressure w/o rupture of the bourdon tube.
130% full scale pressure without loss of accuracy.

Stem and Socket:

316 Stainless Steel. **E9** 1/4" NPT and **G9** 1/2" NPT

K9 1/4" NPT standard (1/8" NPT by special order)

Removable restrictor screw standard on K9, optional on E9 and G9 models. One piece welded connection.

Ranges Available

Vacuum, Compound, Rec 3-15, up to 10,000 psi

Configurations Available:

- (L) = Bottom connected standard
- (L) = Lower-back connected - K9
- (C) = Center-back connected - E9 and G9
- (U) = U-Clamp mounted, Lower-back connected on K9, Center-back on E9 and G9
- (P) = Front Flange, Lower-back connected on K9, Center-back on E9 and G9
- (R) = Rear flange for Back or Bottom connections

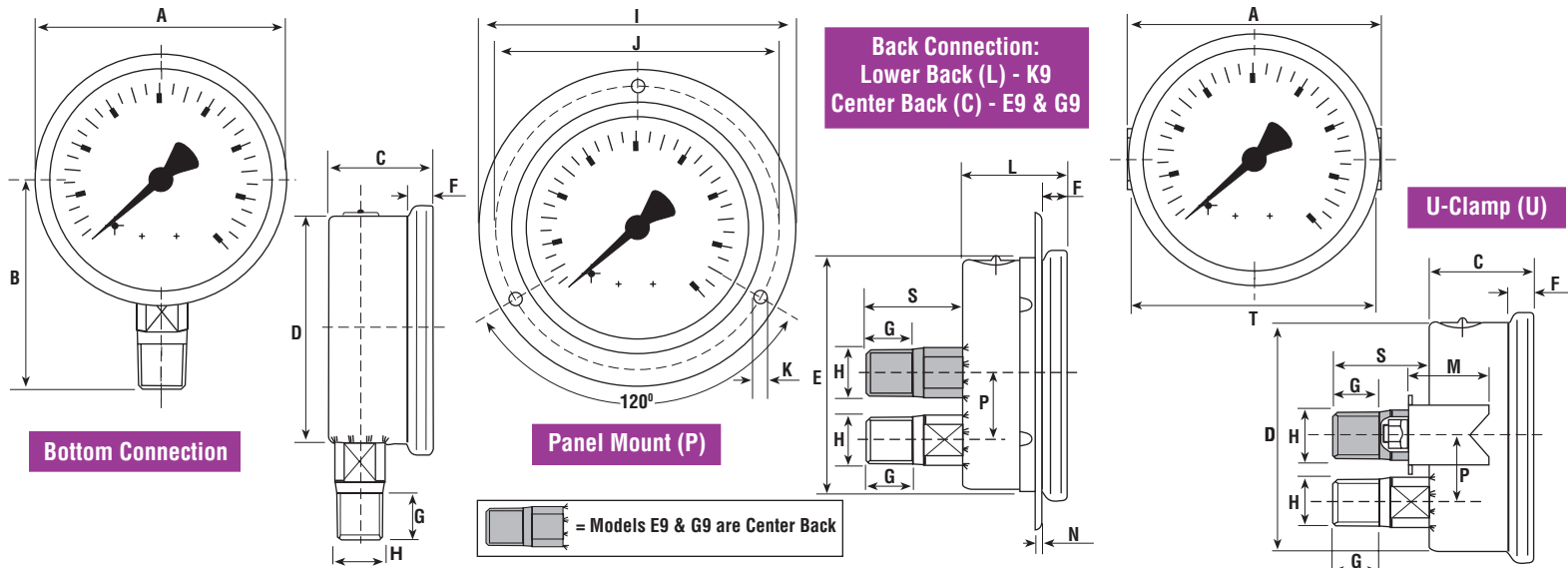
McDaniel Controls, Inc.

ISO 9002
Certified

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DIMENSIONAL DATA



Model	Nominal Size	Case Diameter	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	S	T
K9	63	mm	68.5	57.5	31	62	64 ⁽⁴⁾	7	12	14	85	75	3.5	31	34	2	19	25	70
	2.48	inches	2.68	2.24	1.20	2.44	2.51	0.27	0.47	0.55	3.35	2.95	0.14	1.20	1.34	0.07	0.74	0.98	2.76
E9	100	mm	106	78	33.5 ⁽¹⁾	99 ⁽⁶⁾	100.6 ⁽⁵⁾	7	12	14	∅132	116 ⁽²⁾	4.8 ⁽⁷⁾	33.5 ⁽³⁾	32	3.5	-	27	102
	3.94	inches	4.17	3.07	1.32	3.89	3.96	0.27	0.47	0.55	5.20	4.57	0.19	1.32	1.26	0.14	-	1.06	4.02
G9	100	mm	106	88 ⁽⁸⁾	33.5 ⁽¹⁾	99 ⁽⁶⁾	100.6 ⁽⁵⁾	7	15	22	∅132	116 ⁽²⁾	4.8 ⁽⁷⁾	33.5 ⁽³⁾	32	3.5	-	40	102
	3.94	inches	4.17	3.48	1.32	3.89	3.96	0.27	0.59	0.87	5.20	4.57	0.19	1.32	1.26	0.14	-	1.57	4.02

(1) = 33.5±1 (mm) (5) = ∅ 100.6 (mm)
 (2) = 116±0.1 (mm) (6) = 99±0.2 (mm)
 (3) = 33.5±1 (mm) (7) = 3 x 120°
 (4) = 64±0.5 (mm) (8) = 88±1 (mm)

HOW TO ORDER

- Select the **Model** number (K9=2½" dial, ¼" NPT. E9=4" dial, ¼" NPT. G9=4" dial, ½" NPT.)
- Specify **Range Code** from list at left.
- Specify **Type of Mounting**:
 (Bottom connection is standard, no code)
 "L" = (Lower-back connection - K9)
 "C" = (Center-back connected - E9 and G9)
 "U" = (U-Clamp, Lower-back connection on - K9, Center-back connected on E9 and G9)
 "P" = (Front Flange, Lower-back connected on K9, Center-back on E9 and G9)
 "R" = (Rear Flange for Back or Bottom connection - not shown)
- Specify any other **Special Configuration** or options. (special NPT size, dual-scales, Ammonia-NH3, etc.)
- Add **Type of Filling**, if appropriate. (GF=Glycerin Filled)

Example:

Model	Range Code	Type of Mounting	Special Configuration	Type of Filling
K9	D	—	—	GF

Order: A 2½" all stainless steel utility gauge with ¼" NPT bottom connection standard, range of 100 psi, filled at the factory with glycerin. (K9D-GF)

Warning Glycerin filled gauges should not be used in applications involving strong oxidizing agents such as chlorine, nitric acid or hydrogen peroxide. (Refer to ASME B40.1)

** Receiver gauge is dual scale. (0 - 100% primary, 0 - 10 square root secondary)

Limited Warranty

McDaniel warrants our utility gauges to be free of defects in material and workmanship: Replacement of any defective gauge will be made at no cost to the purchaser. Gauge failures determined to be caused by over-range and incompatibility with environment/product media or abuse will not be considered under this warranty.

Range code	Range psi	Minor Increments
A	0 - 15	.5
B	0 - 30	1
C	0 - 60	2
D	0 - 100	2
E	0 - 160	5
F	0 - 200	4
G	0 - 300	10
H	0 - 400	10
I	0 - 600	20
J	0 - 800	20
K	0 - 1000	20
L	0 - 1500	50
M	0 - 2000	40
N	0 - 3000	100
4k	0 - 4000	100
O	0 - 5000	100
6k	0 - 6000	200
P	0 - 10000	200
VACUUM	VACUUM	VACUUM
S	VAC 30"Hg - 0	1
RECEIVER	RECEIVER	RECEIVER
T	REC 3 - 15"	2
COMPOUND	COMPOUND	COMPOUND
U	30"Hg + 15	2-0-1
V	30"Hg + 30	2-0-1
W	30"Hg + 60	5-0-2
X	30"Hg + 100	5-0-2
Y	30"Hg + 160	5-0-5
2k	30"Hg + 200	10-0-5
Z	30"Hg + 300	10-0-10

DISTRIBUTED BY:

It is recommended that users of pressure gauges become familiar with American National Standard ASME B40.1, entitled Gauges, Pressure and Vacuum - Indicating Dial Type - Elastic Element. This specification is available from:

**American Society of Mechanical Engineers,
United Engineering Center**

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