KRUEGER SENTRY GAUGE
1873 SIESTA LANE GREEN BAY, WI 54313 | 920-434-8860 | www.ksentry.com

At-A-Glance® Direct Reading Gauge – Type D

The At-A-Glance Type D Liquid Level Gauge is a reliable, swing-arm type tank gauge used for measuring all types of liquid levels. This sight gauge's simple mechanical design promotes durability, minimal upkeep, quick installation, and easy/inexpensive repairs. This mechanical level gauge is custom-made in-house to fit your tank. We can accommodate any size tank from 6 inches to 12 feet in depth, we can also account for double walls and pipe risers, and we offer multiple materials of construction to accommodate nearly any type of liquid.



Calibration: Consists of 3 pieces –
Outer plastic piece, inner plastic piece, and a piece of paper in between.
Upgrades: Inner glass or Solid Glass

Lock Nut: HDPE Plastic
Also available in aluminum or PVC.

Bushing: Aluminum
Can be 2", 1.5" or .75".
PD Option allows for a PVC Bushing



Float: HDPE
Also available in Stainless Steel or Nitrophyll.

Internal Rods: Standard construction is galvanized steel rods with brass rivets.
Additional options are stainless steel rods, peek rods, or Kynar (PVDF) rods.

Part Number—
D-(size opening)-(tank depth)+(ext)-(list options)
Example: D-2-48+12

Material Options:

- **Standard Direct Reading Gauge-Type D**-Rods are galvanized steel, floats are HDPE plastic, bushing is aluminum, calibration top is plastic.
- **Stainless Level One-Type D-S1**- Rods become stainless.
- **Stainless Level Two-Type -D-S2**- Rods and floats become stainless.
- **All Plastic Model—Type PD**—This model comes standard with Inner Glass Calibration, PVC Gauge Guard, PVC Bushing, PEEK Plastic Rods, HDPE Plastic Float.

**The Stainless Level Three – S3 option (adds stainless steel bushing) is not available on this model. - If you want this option, see the Therma Gauge Type H.*

Material Limitations:
Standard choices are listed on picture to the left.
Stainless Steel Floats: Maximum tank depth is reduced to 120 inches.
Plastic Rods: Maximum tank depth is reduced to 110 inches.

Accessories & Add-ons:

- Gauge Guard: A cover that protects the exposed plastic components on top of the gauge.

- Audible Alarm: Can turn your mechanical gauge into an audible Hi or Lo level alarm.

- LED At-A-Glance: Can give your mechanical gauge remote reading capability.

- KSG SmartGauge Transmitter: Can convert a Krueger mechanical gauge into a digital output, 4-20mA, industry standard signal.

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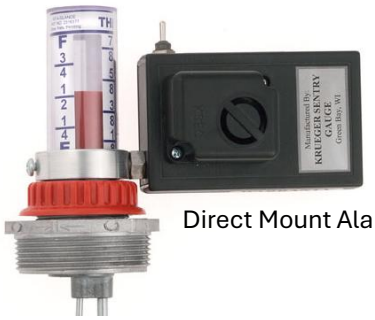
Accessories and Replacement Parts

Accessories

LED At A Glance Remote Display-Turns the direct reading gauge into a wired remote reading gauge.
(part # add -LEDAAG)
Direct Mount Alarms- Audible alarm that mounts directly to the gauge and provides your choice of overfill or low-level warnings.
(part # add -DAlarm)
Remote Mount Alarms- Audible alarm that can be remotely wired and provides your choice of overfill or low-level warnings.
(part # add -RAlarm)
KSG SmartGauge Transmitter- accessory system converts a Krueger mechanical gauge into a digital output, 4-20mA, industry standard signal
(part # add – KSG SmartGauge Transmitter)

KSG SmartGauge Transmitter





Direct Mount Alarm



LED At A Glance



Gauge Guard

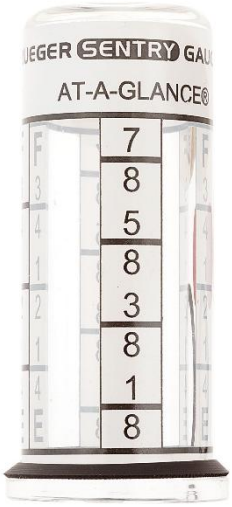


Aluminum Lock Nut



Inner Glass Calibration

Solid Glass Calibration



Replacement Parts

D-Kit- Replaces all the top components with standard materials.
DG-Kit- Replaces all the top components with standard materials and a glass calibration.
DALN-Kit- Replaces all the top components with standard materials and an aluminum lock nut.
DGALN-Kit- Replaces the top components with a glass calibration and aluminum lock nut.
DSG-KIT- Replaces the top components with a solid glass calibration and aluminum lock nut.

Upgrades / Add-ons

Aluminum Lock Nut- Replace the red lock nut for added durability.
(part # add -ALN)
Gauge Guard- Protective cover that replaces the red locking nut providing protection from physical damage, weathering damage, and helps with passing fire inspections.
(part # add -ALG)
Inner Glass Calibration- The internal piece of the calibration becomes glass. Provides protection from heat, fumes, weathering, and helps with passing fire inspections. (part # add -GLC)
Solid Glass Calibration- Calibration is a solid glass. Increases resistance to a variety of environmental factors including sun damage, heat damage, and weathering. (Requires aluminum lock nut)

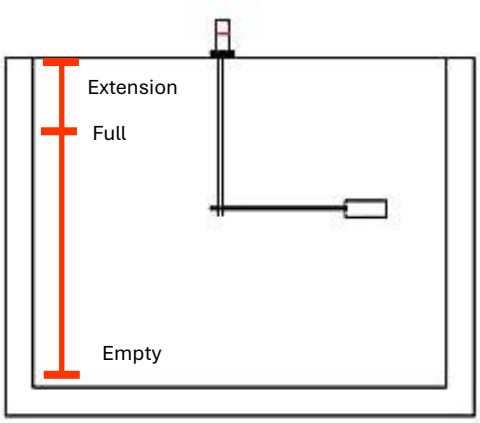


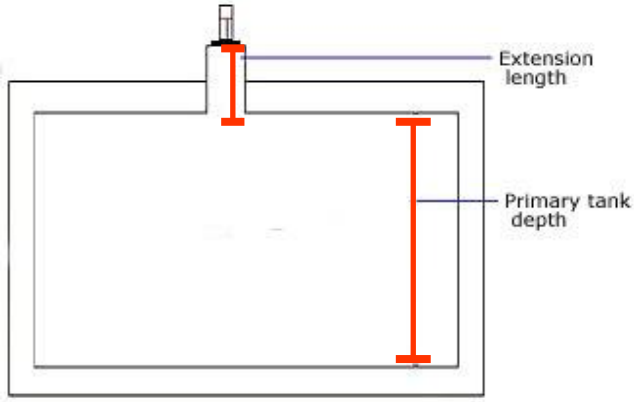
DSG-KIT

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Ordering, Installation, Maintenance and Operation





Installation Instructions:

When installing, unthread the red nut and remove the calibration and bushing. Thread in the bushing first. Drop the gauge through the center hole, make sure your swing arm is facing in the direction you want. Replace the calibration and tighten down your red locking nut.

Instructions for Operation:

The top of the red indicator is an indication of your approximate fuel level in your tank. Once installed, you simply view the calibration to monitor your tank level. Indicator is calibrated in eighths of a tank on one side, and quarters of a tank on the other as well as Gallons and Liters.

Ordering Instructions:

Part Number Layout:
D-(Opening Size)-(tank depth)-(ext. length)-(material package)-(options)

1. State the gauge type (Type D for metal or Type PD for all plastic)
2. State the opening size you are using. (.75”---1.5”---2”)
3. State the tank depth (pictured left). Tank depth is the distance from empty to full.
4. When necessary, provide the extension length (pictured left). Extension length is the distance from full to gauge threads. *sometimes zero*
5. List the material package you prefer for best compatibility with your liquid. Material packages are explained on page 1 of this document. *Skip this if you want standard materials*
6. List other material options and accessories that you prefer. These options and accessories can be located on page 2 of this document. *Skip this if you want standard materials.*

Example Part numbers

- D-2-48-12-S2
- D-2-24-GLC

Maintenance:

The Direct Reading Gauge can fail in one of three ways.

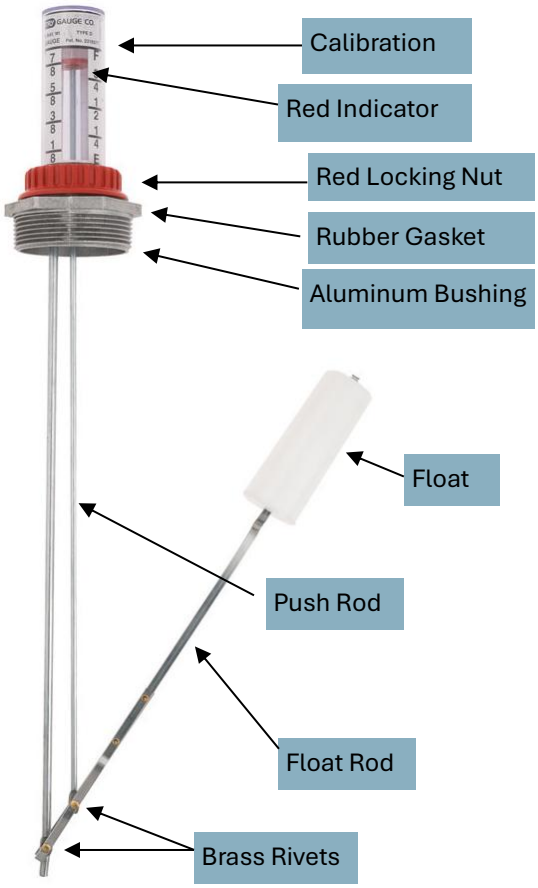
- The calibration assembly on the outside of the tank can become weathered, unreadable, or broken.
- The connecting rods that extend into the tank can come apart or become damaged.
- The float that sits at the bottom of the gauge can come off or become saturated with product (leak).

Recommended Maintenance Procedures:
When performing maintenance, be sure to follow the installation instructions to prevent damaging the gauge.

- Once per month: Inspect the top of the unit once per month to ensure that the calibration is visible, readable, and unbroken. (these top pieces can be easily replaced without having to replace the whole gauge)
- Once every 6 months: Unthread the unit and carefully remove it from the tank. Be sure all rods are connected as one piece from the red indicator all the way down to the float. Also inspect the float for damage or leakage. To ensure proper working order, manually raise the float arm from empty to full to be sure that the red indicator freely moves up and down with the motion of the float rod.

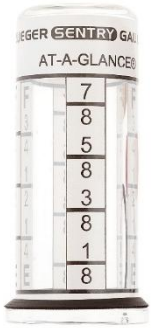
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FAQ's and Troubleshooting



Helpful Information:

- Restocking Fee is typically 25% but may vary depending on the individual situation and the type of gauge.
- 1 year warranty after date of purchase
- PSI rating for gauges is 70 PSI
- Level Gauges are **not** field adjustable


Solid Glass


Inner Glass


Gauge Guard

Frequently Asked Questions:

Q: What is the difference between the Therma Gauge and the standard Direct Reading Gauge?
A: The Direct Reading Gauge has a one-piece bushing. As you thread it into the tank, the float rod spins inside. The Therma Gauge has a two-piece bushing, allowing for easier installation when the gauge is near a wall or corner.

Q: The top plastic portion of my gauge has become damaged or weathered, what can I do?
A: The top of the gauge is easily replaced, just order a D-Repair Kit which replaces all of the top components of the gauge.

Q: How can I prevent the top of my gauge from becoming weathered or warped in the future?
A: Several upgrades exist that improve the life and performance of the gauge. The glass calibration, which makes the internal part of the calibration into glass, increases the gauges resistance to heat, fumes, and sun.

Q: My gauge top keeps getting broken by hoses/weather/people, do you have a more durable option?
A: We offer something called a Gauge Guard. This is an aluminum cage that replaces the red lock nut and protects the top of your gauge from physical damage and weathering.

Q: The fire inspector says my gauge is not up to code? How can I satisfy their requirements.
A: If you get the glass calibration and the gauge guard, you are creating a glass and metal barrier between the inside of the tank and the external environment. Explain this to your inspector and see if it satisfies their requirements.

Q: I have aggressive chemicals that I need to gauge, will this work?
A: Our gauge has many material options, including all stainless components or all plastic components. We can help with determining what material option you need, but compatibility is ultimately the end user's decision.