

How to Read a Pressure Gauge

Dial · scale · units · markings — beginner guide by MANOGAUGE

A pressure gauge shows system pressure via a pointer moving over a graduated dial. Reading it correctly avoids costly mistakes.

Main Parts

- **Dial & scale** (graduations), **pointer**, **unit** (bar / psi / kPa / MPa), **connection**, **window**.

How to Read — Step by Step

1. Identify the **unit** printed on the dial (some gauges show two scales, e.g., bar + psi).
2. Read the value where the pointer sits; **interpolate** between graduation marks if needed.
3. On dual-scale gauges, read the matching ring (outer vs inner) for the unit you need.
4. Look straight at the pointer (avoid **parallax** error / reading at an angle).

Special Markings

Marking	Meaning
Red mark / limit	Maximum safe working pressure
Set / drag pointer	Records peak pressure reached
Negative scale (–)	Vacuum; compound gauges read below and above zero
Accuracy class	Tolerance as % of full span (e.g., 1.6 → ±1.6%)

Good Practice

- When depressurized, the pointer should rest at **zero**; if not, the gauge may need recalibration.
- Operate around **1/3–2/3 of the scale**; never exceed the range.
- For vibration/pulsation use a **liquid-filled** gauge for a stable, readable pointer.

Need dual-scale or custom dials (bar+psi, logo, colors)? MANOGAUGE offers OEM dials — www.manogauge.com.

About MANOGAUGE

MANOGAUGE (Zhejiang Xinzhongxin Instrument Technology Co., Ltd.) — a National High-Tech pressure gauge manufacturer in China: stainless steel, liquid-filled, digital, diaphragm, tire, medical and explosion-proof gauges, with CE/PED/ATEX/FDA and OEM/ODM service. More & quotes: www.manogauge.com | sales@manogauge.com. Free to share or cite — please keep the source link to www.manogauge.com.