

YTZ-150 remote resistance gauge

Complete English user manual

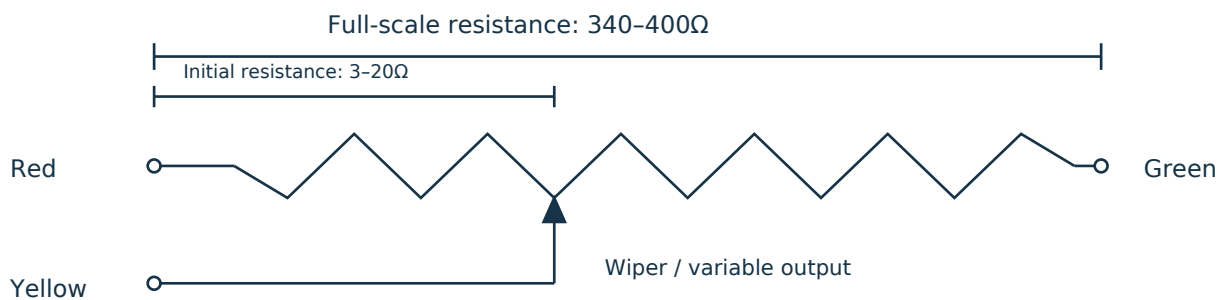
1. Product overview

The resistance-transmitting pressure gauge measures liquids, steam and gases that do not corrode copper or copper alloys. A built-in slide-wire resistance transmitter sends the measured value electrically to a secondary instrument away from the measurement point, enabling centralized monitoring and remote control. The dial also indicates pressure locally for process checks.

2. Technical specifications

Parameter	Manual specification
Accuracy class	1.6
Initial transmitter resistance	3–20Ω
Full-scale transmitter resistance	340–400Ω
External voltage at transmitter terminals	Not greater than 6V
Ambient conditions	–5°C to 55°C; relative humidity ≤85%
Vibration and pulsation	Ambient vibration and sudden pulsation of the measured/controlled medium must not noticeably impair normal operation
Temperature influence	Additional error ≤0.4% per 10°C deviation from the reference condition of 20±5°C

3. Slide-wire transmitter wiring



Red and green are the two fixed ends of the resistance element; yellow is its sliding contact. The original diagram labels the complete red-to-green element as the full-scale resistance and the initial red-to-yellow resistance as the starting resistance. Match the three connections to the receiving instrument’s potentiometer input.

The local mechanical indication needs no electrical supply. The remote resistance circuit uses the receiving instrument’s excitation, within the terminal-voltage limit. This is a resistance output, not a powered current-loop output.

Installation and operating care

4. Installation

Install the gauge vertically, preferably at the same elevation as the pressure measurement point. If the elevations differ, include the additional error caused by liquid head. Avoid impact and vibration during handling and installation, including vibration transmitted through nearby equipment or pipework.

5. Ambient conditions and temperature influence

Use the instrument at -5°C to 55°C and no more than 85% relative humidity. Consider additional temperature error when the operating temperature departs substantially from the reference condition.

6. Working pressure

Service condition	Recommended pressure
Steady pressure	Between 1/3 and 2/3 of full scale
Fluctuating pressure	Between 1/3 and 1/2 of full scale

The source additionally recommends operation around two-thirds of full scale. That recommendation applies to steady service and does not override the one-half limit for fluctuating pressure.

7. Isolation and damping

For corrosive media, media liable to crystallize, viscous media or sharply fluctuating pressure, fit appropriate isolation and damping devices. The gauge's own copper-alloy wetted components must remain compatible with the fluid that reaches them.

8. Storage and inspection

Store the gauge in air free from harmful contaminants that could cause corrosion, and avoid excessive humidity. Protect it before and after use; do not expose it to impact or strong vibration. Verify/calibrate the instrument regularly, at least once every three months, and arrange prompt repair if a fault is found.

9. Ordering

State the measured medium when ordering a customized gauge so that suitable materials can be selected.

Translation and configuration notes

The Chinese website lists full-scale resistance of 310–400 Ω , relative humidity $\leq 80\%$ and working voltage $< 6\text{V}$. The attached Chinese manual gives 340–400 Ω , $\leq 85\%$ and $\leq 6\text{V}$, as translated on page 1. For the current website configuration, use the tighter humidity and voltage limits and establish the actual resistance endpoints when matching the receiving instrument. Neither source provides a universal resistance-to-pressure calibration equation.

The source's temperature-reference notation is $20 \pm 5^{\circ}\text{C}$. Its closing two-thirds-pressure recommendation is qualified by the separate steady and fluctuating pressure limits above.