



FREQUENCY OF CALIBRATION

TECHNICAL NOTE #10

The frequency of calibrating a pressure transmitter depends on a number of factors. In general, pressure transmitters should be calibrated at least once per year. However, there are a number of factors for which it may be necessary to calibrate them more frequently, such as every six months or even every quarter. Following are some specific factors that can affect the calibration interval of a pressure transmitter.

Environmental Conditions:

- Temperature: The performance of pressure transmitters can be affected when exposed to harsh environments such as high temperatures or extreme temperature variations. In such instances, calibration may need to take place more frequently than for pressure transmitters that are in a more controlled environment.
- Vibration: Pressure transmitters that are subjected to higher vibration may need to be calibrated more frequently to ensure that they are not producing inaccurate readings.
- Process Fluid: The sensing diaphragm of pressure transmitters that are used to measure corrosive or abrasive fluids can be adversely affected by these, which in turn may result in the need for more frequent calibration.

Age:

Older pressure transmitters may be more likely to drift or develop errors over time due to sensor fatigue, and so may need to be calibrated more frequently than newer transmitters.

Criticality of the Process:

If the pressure transmitter is used in a critical process where accuracy is paramount, it may need to be calibrated more frequently. This includes safety-critical applications such as those in the automotive test or aerospace industries. Critical processes often require shorter calibration intervals to ensure reliable and accurate measurements.

Other Important Factors:

- Regulatory Requirements: Some industries and applications may have specific regulations or standards that dictate the calibration frequency for pressure transmitters. Ensure compliance with these regulations.
- Historical Data: Monitor the performance of a pressure transmitter over time. If a significant drift in measurements or a decrease in accuracy is noticed, it may be a sign that calibration is needed sooner than the manufacturer's recommended interval.
- Calibration Records: Maintain detailed calibration records, including the date of calibration, who performed it, the calibration results, and any adjustments made. These records help track the performance of a transmitter over time.



PRESSURE, LEVEL & TEMPERATURE TRANSMITTERS & TRANSDUCERS

2770 Long Road, Grand Island, NY 14072 U.S.A.

Ph: 716.773.9300 • Fax: 716.773.5019

sales@GP50.com • www.GP50.com

FREQUENCY OF CALIBRATION (CONT.)

TECHNICAL NOTE #10

Best Practices:

As a general rule, many industries perform yearly calibrations for pressure transmitters as a baseline. However, more frequent calibrations (e.g., quarterly, or semi-annually) may be necessary for those used in critical applications or harsh environments.

In summary, there is no one-size-fits-all answer as to how often a pressure transmitter should be calibrated. There are various factors unique to each specific situation. Always start with the manufacturer's recommendations, and then adjust the calibration frequency based on the criticality of the process, environmental conditions, and historical performance data. Regular calibration ensures the accuracy and reliability of pressure measurements, which is crucial in many industrial and scientific applications.

Please Contact:

GP:50 NY LTD.

2770 Long Road Grand Island, NY 14072

Tel. (716) 773-9300 • Fax (716) 773-5019

sales@gp50.com • www.gp50.com