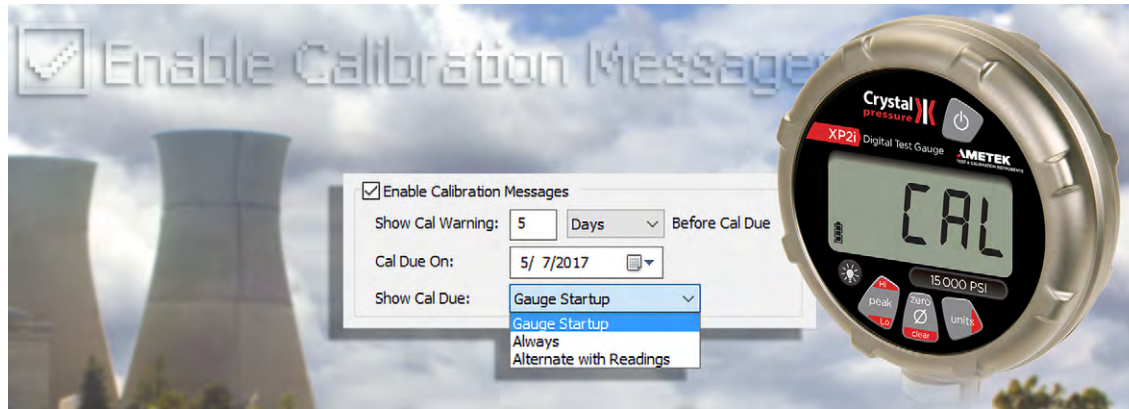


Calibration Reminders and Alerts



Pressure gauges are used throughout the gas industry for testing and calibrating various instruments. These gauges require periodic calibration to assure their accuracy. Regulatory authorities require routine testing and/or audits of gas systems, which can entail fines for non-compliance. By choosing XP2i digital pressure gauges from Crystal Engineering, costly fines can be prevented with the help of automatic built-in calibration alerts and reminders.

Keeping Track of Gauge Calibrations Can Be a Challenge

Test gauges are used as the standards for calibrating and testing important equipment used every day. The accuracy of these test gauges can decline over time, and, therefore, they must be regularly calibrated to remain accurate.

Keeping track of the calibration intervals for all test equipment can be a challenging task in which human error can occur. Calibration certificates or stickers can be misplaced or lost, or the technician may not notice that the gauge is beyond its calibration dates. Even if a company has a system to keep track of these dates, it still requires somebody to notify the technician when re-calibrations are due. It also requires the technician to remove the gauge from service once they are notified.

Each of these situations requires human intervention to assure that products are not used outside of their calibration intervals. If mistakes are made, a company could end up using a gauge to test important equipment when they shouldn't be. This could lead to failed audits and costly fines.

XP2i Pressure Gauges Offer a Solution

Crystal Engineering offers a solution to replace manual record keeping and notifications, with automatic, protected alerts and notifications. The XP2i pressure gauges contains three new features:

- 1 On-screen, customizable calibration reminder alerts prior to the due date.
- 2 Warning alerts on and after the due date.
- 3 An optional feature to lock the gauge from use on the calibration due date.

Using free software, users, supervisors, or labs can set a calibration date in the internal memory of the gauge. The due dates, reminder times, and message types can all be customized through the software.

Calibration Reminder Alert

For a start-up reminder, users enter the calibration due date and the notification time prior to that date, which can be set in days or weeks. Once the defined prior to date is reached, the XP2i flashes "Cal Soon" three times during the start-up process and will do that until the calibration due date has been reached, or the alert dates are updated.

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Calibration Due Alert

Once the calibration due date has been reached, the XP2i has three alert options:

- **Gauge Start-up** “Cal Due” flashes three times during the start-up process and the gauge will then operate normally. No additional warnings will occur until the power is recycled on the gauge.
- **Always** “Cal Due” is displayed until a button is pressed, and then the gauge operates normally. After that, no additional warnings occur until power is recycled. Password Protection can be added to make the gauge non-operational and always display “Cal Due.”
- **Alternate with Reading** “Cal Due” flashes three times during the start-up process and then alternates displaying “Cal Due” with live pressure readings.

With increased attention of environmental issues surrounding the oil and gas industry, pressure on businesses and audits have never been higher. A system that relies on human intervention can always be intentionally or unintentionally circumvented. An automatic product based system, which can easily be set-up by managers or supervisors, is much preferred.

Crystal Engineering's XP2i is already the most common gauge used in the oil & gas industry. This new feature now makes the new XP2i even more desirable. If it prevents a company from using it after its calibration date even one time, it has already paid for itself. The new XP2i has been shipping since January of 2017. In fact, Crystal Engineering worked with one of the largest oil & gas companies in the USA when designing the new features. This company has already standardized and implemented the new XP2i throughout.

