

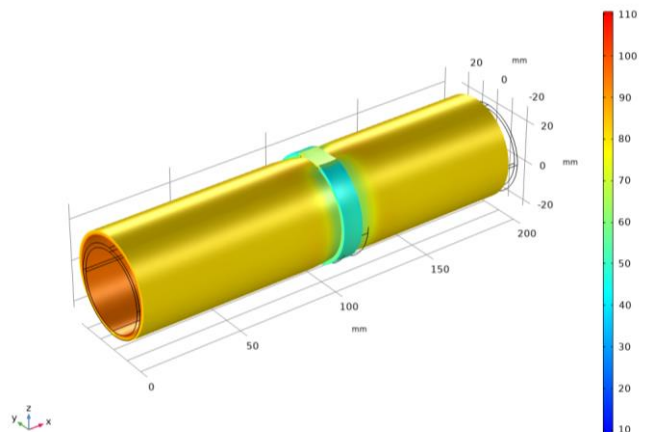
Retrofit kit for non-invasive pressure measurement on process pipes (NivLer)

The retrofit kit in the form of a sensitive sleeve with integrated pressure sensor system is to be used for non-invasive pressure measurement in process pipes. The integrated pressure sensor system is realized on the basis of 500x500 μm silicon-based strain sensors and applied to the sensitive pipe sleeve area by means of a micro-technical joining process. The direct coupling detects the exact strain changes of the process pipe.

CHARACTERISTICS

- Non-invasive pressure measurement in pipes or pressure vessels without media contact
- Subsequent installation on the process pipes (free mounting, surface mounting)
- Various geometry sizes/shapes possible depending on the application
- Easy installation, but slight loss of accuracy
- Measuring accuracy approx. 1% - 3% of the measuring range (4 to 300 bar)
- Possibility of temperature compensation of the raw signal

Strain-based, non-invasive approaches for measuring pressure in piping systems are attracting a great deal of interest in the industrial plant sector due to their convenience and non-destructive installation. Applications are planned for process pipes in systems for recording, digitizing, storing and evaluating condition variables. This provides information on material changes, wear mechanisms, maintenance, energy consumption under operating conditions or reactions to external influencing factors.



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