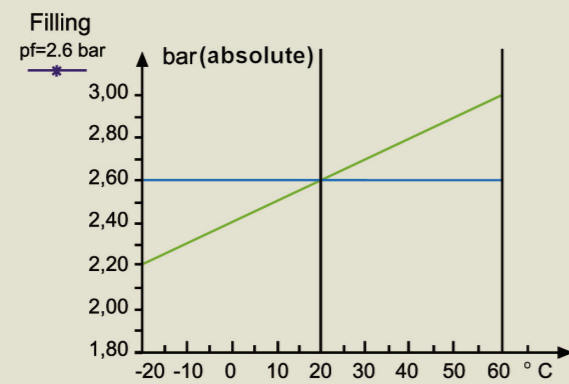
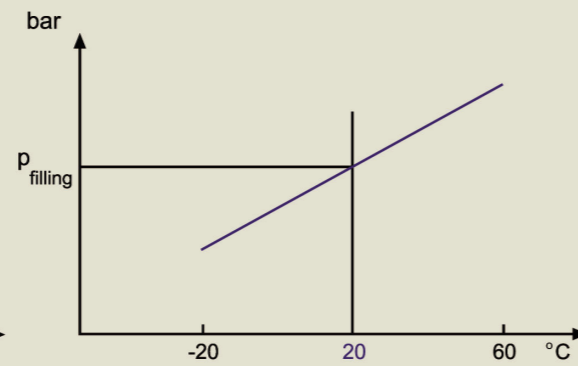


Compensated pressure course



Temperature-dependent pressure course



KNOWLEDGE



PROFESSIONALISM

Accuracy, calibration pressure

The reference isochore is defined by the calibration pressure. Accuracy statements refer to the calibration pressure. In the case of gas density indicators the filling pressure of the switchgear is used as calibration pressure. The calibration pressure has to be determined for gas density monitors with local indication and alarm contacts. The user has to select an optimal calibration pressure in accordance with his particular application.

The importance of the function is determined when selecting the calibration pressure. Usually more importance is attached to the switching function than to the indicator. The SF6 gas pressure is at 20C and corresponds with the calibration pressure when one single switch point is to be controlled. Where two switching points are concerned maximum accuracy can be achieved when the calibration pressure is in the middle of the two switching points. If the contacts have different significance in their controlling task a calibration pressure has to be determined that corresponds with the SF6 gas pressure of the most important switching point.

The reference isochore is defined when the calibration pressure is determined. However, since the isochores for different SF6 gas pressures have different gradients, deviations will be given in addition to the accuracy related to the calibration pressure. The magnitude of the deviation depends upon the SF6 gas temperature, calibration pressure and switching point pressure. This deviation decreases the closer the calibration pressure gets to the switching point pressure. The magnitude of the switching error can be reduced by selecting a suitable calibration pressure.

(illustration: deviation from reference isochore)

Applicable for gas density monitors and gas density indicators for 20C is:

Indicating error: +/- 1%

Switching error: +/- 1%

Applicable for gas density monitors and gas density indicators in the temperature-compensated range from -20 to +60C is:

Indicating error: +/- 2.5%

Switching error: +/- 2.5%

