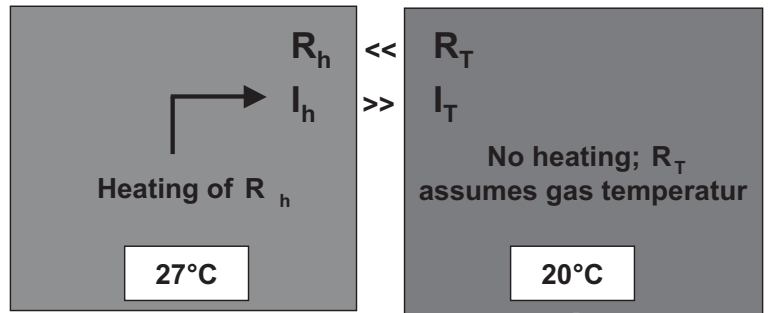
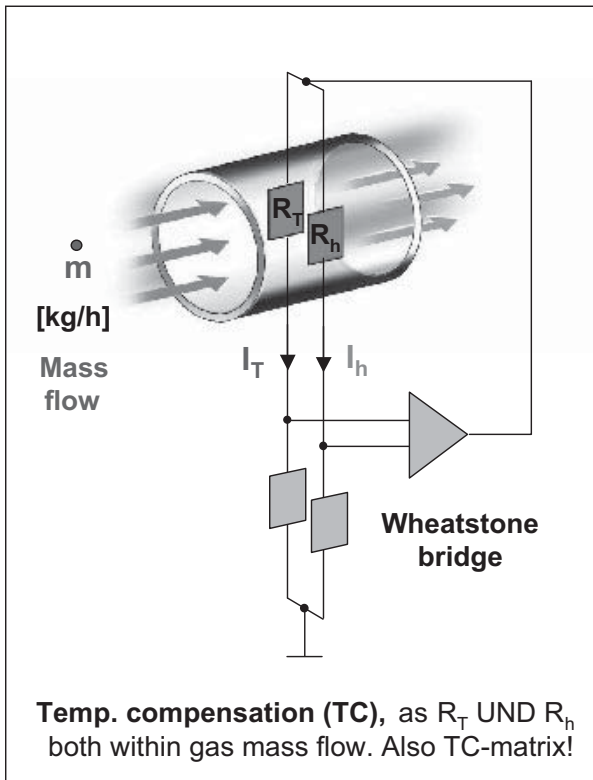


The optimum measuring principle for compressed air norm volume flow measurement used in the testo 6440 is thermal mass flow measurement. This measurement method is characterized by its independence from the process pressure and temperature, as well as its ability to cause no lasting loss of pressure.

To do this, glass-coated sensors developed specially for demanding compressed air application are subjected to the process temperature and switched in a Wheatstone bridge. One of the two sensors is used as a heat source, i.e. it is a heated resistance, and the other as a non-heated temperature sensor for compensating the changing gas temperature. The gauge for the mass flow in this measurement method is the heating current  $I_h$  (see illustration below).



**Control: constant over-temperature**

