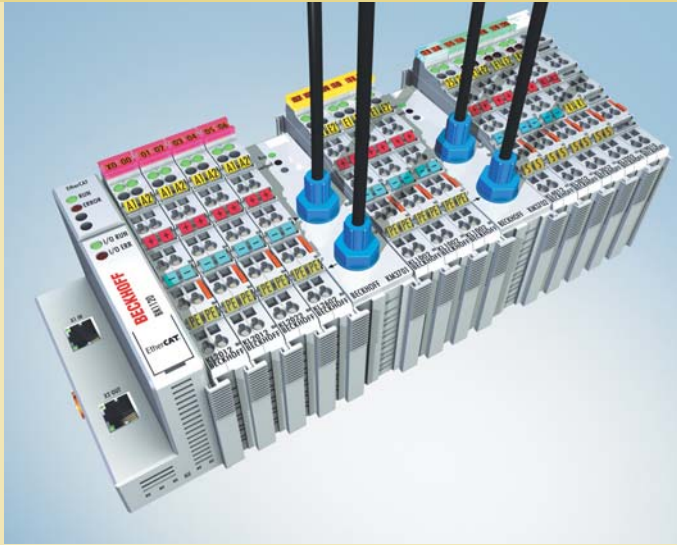


Bus Terminals record differential and absolute pressures

Simple and compact pressure measurement

The well-established Beckhoff Bus Terminal system is being expanded by the new pressure measuring terminal, KM37xx for recording differential and absolute pressures. In a similar way to electrical signal acquisition, pressure measurement is carried out using a "standard" 24 mm Bus Terminal. This compact housing and simple connection system supports rapid installation with considerable savings in cabinet space.



The pressure measuring terminals record direct differential and absolute pressures in non-aggressive gases. They change the measured pressure into an electrical signal and make it available to the higher level controller as a 16-bit value. The 1-channel differential pressure measuring terminal, KM3701 measures pressure differences between two hose connectors. The differential pressure can be measured up to an ambient pressure of 7,000 hPa (7 bar) between points. The range of the differential pressure measuring terminal lies between 0 and 100 hPa (100 mbar). The 2-channel absolute pressure measuring terminal, KM3702 records pressure values between 0 and 7,000 hPa (7 bar) at each hose connector. Pressure measurement takes place relative to the actual current ambient pressure. The pressure measuring terminals have quick release mechanisms for connecting the measuring hoses. Standard commercial plastic hoses can be used as

the measuring hoses. The 2-channel absolute pressure measuring terminal, KM3712 is under development for measuring negative pressures of -1,000 hPa (-1 bar) to 0 hPa.

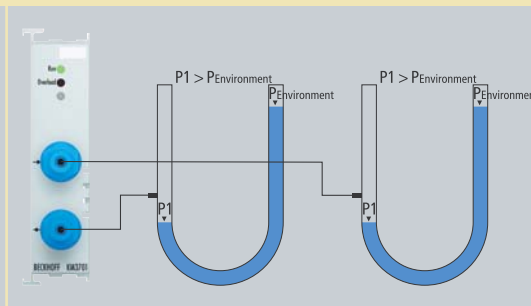
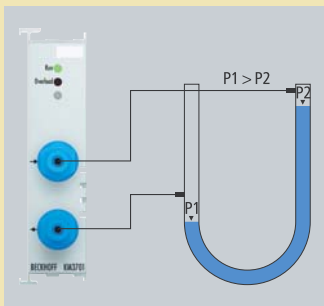
The pressure measuring terminals do not contain any mechanical parts. The measuring principle is based on the most up-to-date, on-chip sensor technology. In addition to measuring, this semiconductor also executes other functions such as temperature compensation and avoidance of long-term drift. The KM37xx are therefore wear-free, almost non-aging and resistant to temperature fluctuations within the permitted limits. Status LEDs indicate the function or error, such as "out of range."

Beckhoff pressure measuring terminals can be used in any situation that requires the measurement and monitoring of differential and dynamic pressures in non-aggressive gases, e.g. in pressure tanks, pressurized cabins, pneumatic and suction systems. They measure operating pressures, monitor filters and sieves, check the seal tightness of tanks and assist in position testing of construction elements or monitoring the level of liquids. If flow rates are calculated from the measured pressures, then the KM37xx can also be used for flow measurement. They can therefore be applied in areas such as process engineering, systems engineering, building services and heating, ventilating and air conditioning.

Pressures are recorded directly from the KM37xx terminal. Additional measuring instruments are unnecessary. This avoids connection systems and saves space compared with the use of conventional measuring instruments. The installation of the pressure measuring terminals is simple, fast and can be carried out without any additional mounting tools. The pressure measuring terminals are ready for use immediately. No calibration or configuration is necessary.

→ www.beckhoff.com/BusTerminal

The 1-channel differential pressure measuring terminal, KM3701 measures pressure differences between two hose connectors. The differential pressure can be measured up to an ambient pressure of 7,000 hPa (7 bar) between points.



The 2-channel absolute pressure measuring terminal, KM3702 records pressure values between 0 and 7,000 hPa (7 bar) at each hose connector. Pressure measurement takes place relative to the actual current ambient pressure.