PME...

...industrial measurement modules with fieldbus link

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Flexibility and increasing cost pressures have been an important topic for years when it comes to the monitoring of manufacturing and assembly processes and the automation of test benches. This forces manufactoring companies to use as many cost cutting measures as possible. The development in the fieldbus sector offers the potential for innovation and cost savings.

In order to be able to benefit from this potential, signal processing must satisfy new demands. The solution for signal processing is called PME – the intelligent product line for the industrial measurement technology. The PME range of products offers different types of modules for the determining of all measured quantities relevant to processing, such as force, displacement, pressure, temperature, speed of rotation, frequency, torque, voltage, and current.

Standardized interfaces offer flexible communication

Analog output, digital I/O, Profibus DP, CAN, and Interbus S are available for integration into the automation system. Therefore, the system can easily be expanded later thus ensuring that your investment has been well targeted.

Easy and fast module setup

The modules from the PME family internally use a digital operating method and are therefore computer controllable. The autonomous modules can be interconnected easily via CANopen interface and can be set up comfortably using a Windows software.

Packed to meet industrial requirements

The robust die-cast aluminum housing is mounted on standard rails. The 24 V supply voltage usually used with control cabinets supplies the system. Transducers are connected via a 15-pin SubD connector. All other connections are made using coded plug-type terminals which are easy to handle and cannot be mixed up. In addition, these modules provide control inputs and outputs for a 24 V voltage level and also a scalable output.

PME Setup toolkit

Sensor signals are conditioned close to the process and transferred to the host system digitally...

...low susceptibility to interference
...reduced wiring expenditure
...easy-to-service technology
...PME – the solution for industrial measuring tasks

The appropriate modules...

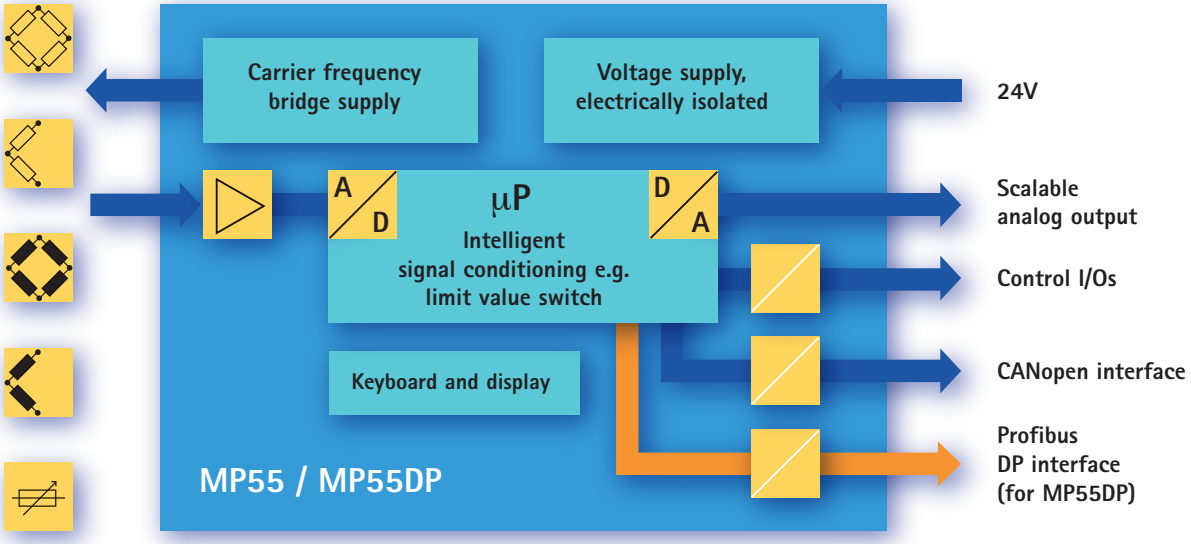
... for your measurement problem. Due to its modularity the PME system enables measured signals from different transducer types to be conditioned uniformly. All measuring modules come with an LCD display, keypad and a CAN interface, 4 digital I/Os, changeover analog output (+/-10 V, 4...20 mA, +/-20 mA), 4 limit value switches, 2 peak value stores and 4 parameter set memories. See the table below for the fields of applications of the different modules.

MP01	DC amplifier; 4 channels for voltage, current, and thermocouplesor 2 channels for PT100 and resistors; Subcon5 connector; 0.1 accuracy class
MP30	600 Hz carrier frequency amplifier for S. G. transducers; 0.05...20 Hz filter; autocalibration; 0.03 accuracy class
MP30DP	600 Hz carrier frequency amplifier with the same characteristics as MP30; however, with additional Profibus DP interface
MP55	4.8 kHz carrier frequency amplifier for S. G. and inductive transducers in full and half bridge circuit; 0.05...500 Hz filter; 0.1 accuracy class
MP55DP	4.8 kHz carrier frequency amplifier with the same characteristics as MP55; however, with additional Profibus DP interface
MP55IBS	4.8 kHz carrier frequency amplifier with the same characteristics as MP55; however, with additional Interbus S interface
MP60	Frequency measuring module for incremental transmitters and HBM torque flanges with frequency output; 0.05 accuracy class
MP60DP	Frequency measuring module with the same characteristics as MP60; however, with additional Profibus DP interface
MP07	Supply voltage module for type T30...T36 and T10F KF1 torque transducers
MP70DP	Gateway from CANopen to Profibus DP; up to 8 PME channels can be connected via CAN; enables gateway functions and mathematical functions to be realized

All PME modules are designed for mounting on support rails.
They are protected to IP20 and come with 24 V DC supply voltage.

Intelligent technology...

...permits signal conditioning directly in the amplifier thus relieving the control system on the one hand, and ensures excellent reproducibility due to digital signal conditioning on the other hand.



MP01

MP30
MP55
MP60

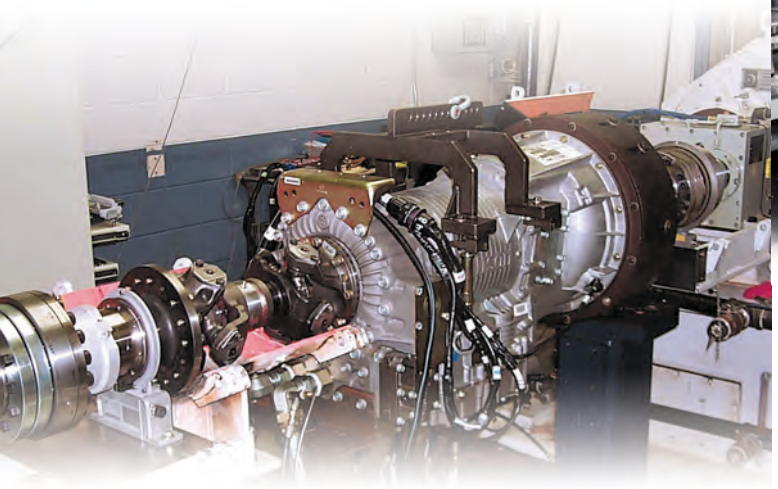
MP30DP
MP55DP
MP60DP

MP55IBS

MP70DP

Versatile – PME module applications

Due to their standardized interfaces and the comprehensive range of transducers that can be connected, the PME modules offer solutions for a wide variety of applications in automation technology and production engineering.



Test bench technology

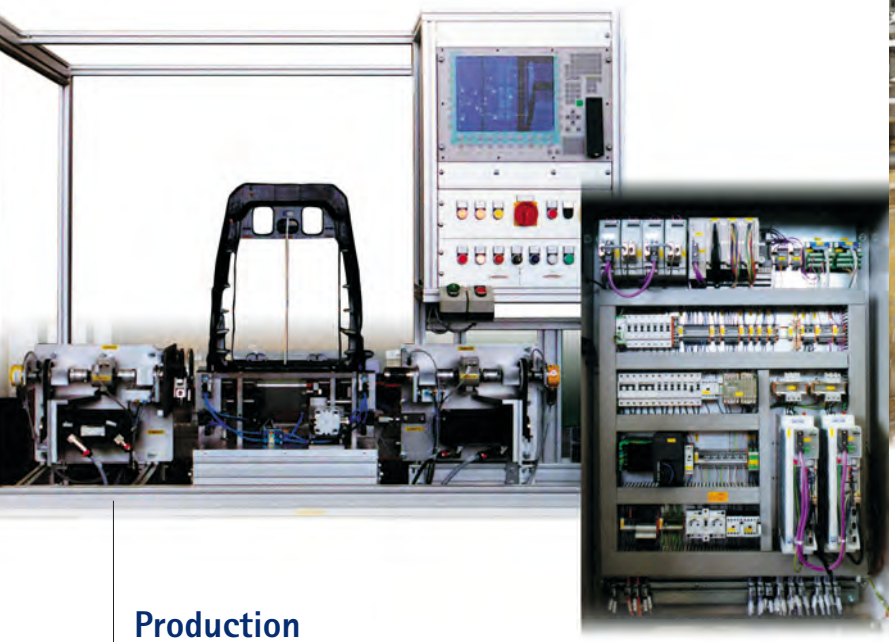
Torque and rotational speed are the main measured quantities on motor and transmission test benches. Often, temperature is also of interest. The appropriate PME modules are used for signal conditioning and constitute the link between the transducer and the host computer/control system.

Fig.: Test bench for automatic transmissions

Press monitoring

Whether with large vacuum-type transfer presses or with tablet compressing machines, the pressing power provides information on the product quality. Therefore, it is of paramount importance to use reliable measuring devices that can easily be integrated into the automation concept.

Fig.: Turntable tablet compressing machine



Production

With the new DIN ISO 9001 becoming effective, what has been introduced several years ago for safety critical parts, has become a "MUST" for automotive suppliers and also for other industries. What we talk about is a full-scale functionality test which should be integrated into the production process without extended turnaround times.

Fig.: Test bench for the car-seat squab adjustment unit

Weighing technology

An extremely stable measuring amplifier with autocalibration function is available for weighing applications that are not subject to statutory calibration. It offers high precision and the option of connecting up to 6 transducers in parallel and safety barriers in series. The MP30(DP) comes with 600 Hz carrier frequency and is therefore especially insensitive to temperature, mains, and high frequency interference.

Fig.: Container weighing in the foodstuff industry

Strain gages

Load cells

Sensors and transducers

Industrial measurement electronics

Software

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