DM6000 Dittel-System 6000
Process control

The DM6000 is a new module of the Dittel-System 6000. The DS6000 product family has a modular design, which can be added to and combined with each other. This innovative concept is highly flexible in terms of its ability to meet customer requirements, provides the user with an increased range of features and is very easy to operate.

The DSCC Software (DITTEL System Control Center) was developed for Windows-based automation systems like Siemens SINUMERIK, Heidenhain, Fanuc or Bosch-Rexroth and PCs. The communication between modules and automation system is made via a static interface, PROFIBUS and RS232 or Ethernet. All modules, their controls and the relevant measurement signals can be displayed on the machine monitor, giving the operator a comprehensive overview of all functions and information. All the data needed for time-saving series commissioning can be saved in an XML file and transfered to other machine controls. This also makes it easy to restore the factory settings.

The standard and well-established Dittel System software and operating concept can be handled intuitively and provides the user with a comprehensive range of functions. Our systems can also be operated independently of the RC6000 or PC6000 remote controls.

The Dittel-System 6000 includes the electronic modules:
- M6000   Electromechanical balancing control
- AE6000   AE process control
- H6000   Hydro-balancing control
- DM6000   Process control

The **DM6000** process monitoring module enables you to evaluate sensor-based and internal control data.

The increased demands placed on the grinding process over the past few years have led to the introduction of new technologies. In order to make full use of a machine's reserves at increasingly high cutting speeds, one must use the appropriate sensors to detect threshold values during the grinding and dressing processes. Should the measured data exceed the tolerances, corrective action can be taken before the process degenerates without intervention on the part of the machine operator.

Internal control data, e.g. torque, is transferred via Profibus to the module where monitoring takes place. The data set for each monitoring strategy can be flexibly allocated to a signal source. AE/Crash, the voltage input and Profibus inputs are treated equally and can be used for envelope monitoring. When using digital drives, even sensorless process monitoring is possible with the aid of internal control data.

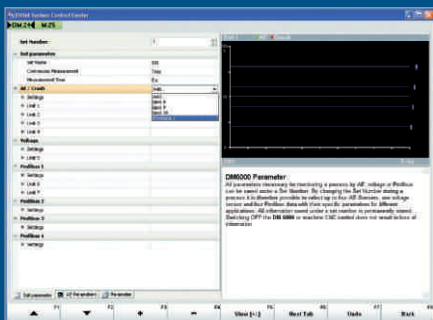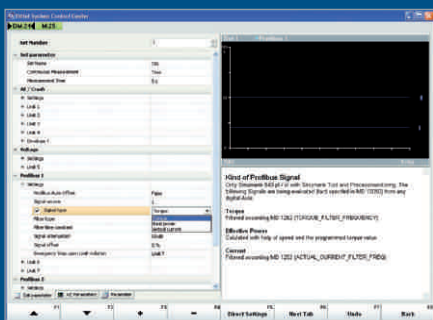Feedback to the controls is made via Profibus or static interface.
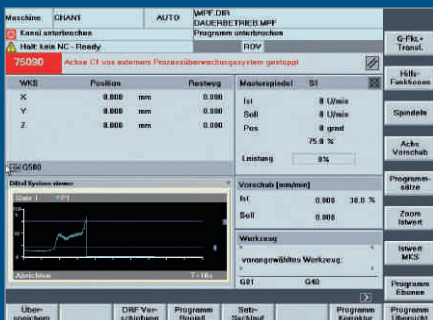
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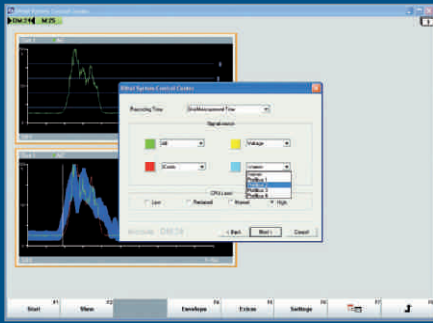
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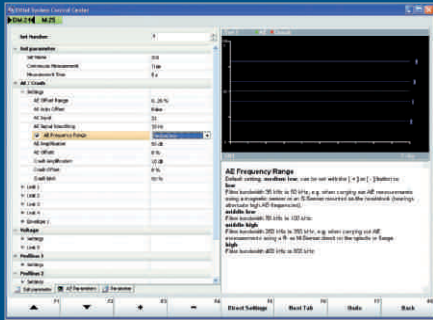
AE frequency range

Parameter

Kind of Profibus signal

Evaluation real power

Basic functions:

- Compatible with previous AE4000/AE4100/AE6000
- Profibus and static interface to machine control
- "Passive" and "active" AE sensors and voltage sensors can be connected
- Auto setup function
- Series setup of multiple modules with all parameters
- "Open architecture" i.e. updates, software specific to customer and new functions can be integrated flexibly

Special features:

- Evaluation of user-defined 4-byte signals via Profibus
- Also available in combination with the SINUMERIK Profibus tool and process monitoring
- Unrestricted allocation of 10 limits to signal sources

Signal sources:

- AE/crash
- Voltage
- 4 x Profibus

Additional monitoring strategies:

- Envelope
- Customer-specific solutions

Communication interfaces:

- RS232 or Ethernet interface (alternatively: USB with adapter) to connect Automation System
- Profibus (Profibus connection significantly reduces wiring – 9-pole D-SUB)
- Control signal inputs/outputs via static interface and/or via Profibus
- Static interface: 25-pole D-SUB
- All digital inputs/outputs via optocoupler

Software:

- Easy to integrate into open Windows-based automation systems
- Easy to integrate software from additional systems
- Freely programmable, Windows-based user surface
- Seamless integration into customer applications via programme interface/ActiveX control elements
- Standard software and operating concept for all DS6000 systems
- Comfortable user guide/prompting
- Intuitive handling
- Integrated online help
- Significant reduction of set-up time
- Complete data protection
- Easily restored to default conditions on servicing
- Optional: Additional equipment functions
- Optional: customer specific software modifications/applications
- Languages: German, English, French, Italian, Spanish, Czech (upgradeable)
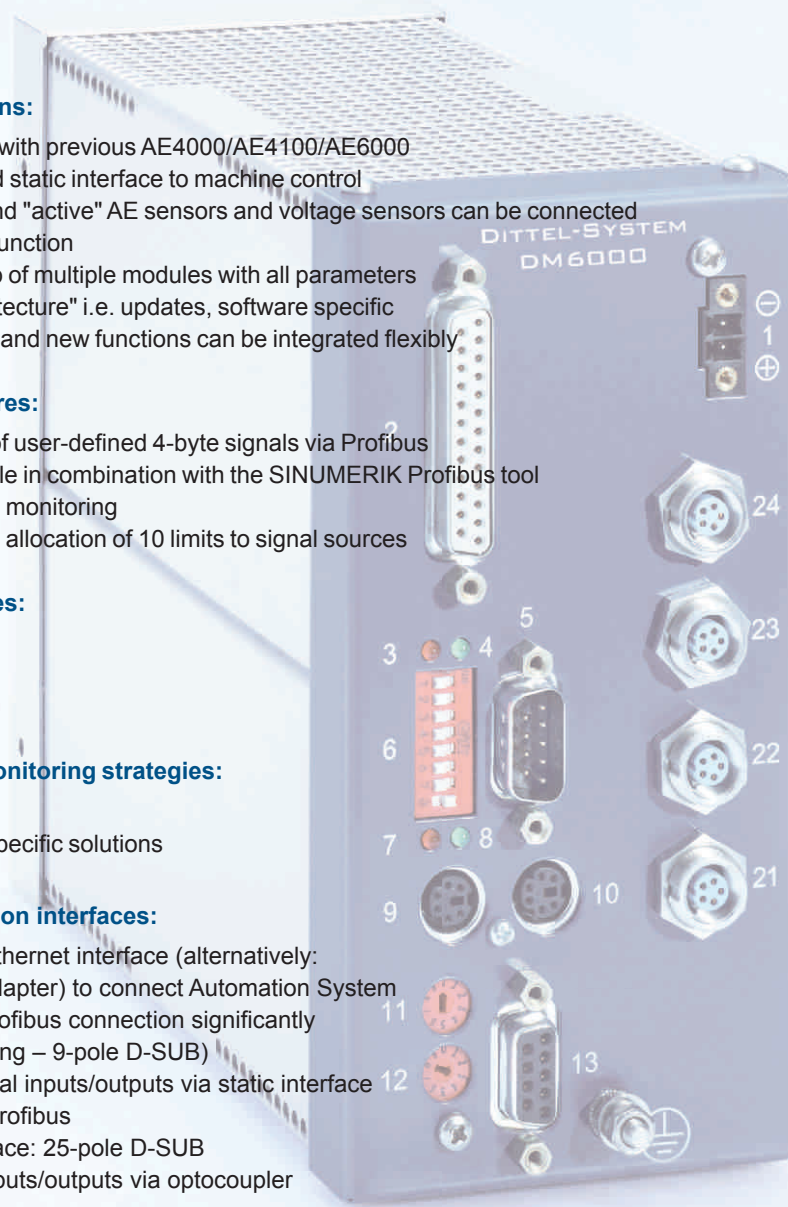
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