

Application Test Technology for Common Rail Systems

CA 4000

(Module for MOEHWALD basic test bench)



Special features:

- **Highly flexible independent test bench**
- **Used in the diesel field for complete common rail systems with engine equipment or for component testing**
- **Integration of various measuring technologies possible, many different high-precision measuring devices are already integrated in software and hardware**
- **Use of quick change modules possible → short set-up times**
- **Safety devices**
- **Test bench control through the MOEHWALD Prisma NT software**
- **Easy handling**
- **Flexible mechanical and electronic configuration for the easy integration of the various CR systems**
- **Compact design**
- **Control electronics as 19 “ modular rack system**
- **High reliability**
- **Suitable for the use in development/application**
- **Upgrade through temperature and/or climatic chamber possible**

General

The CA 4000 module is a test bench module that can be upgraded to our test benches EPS 818W or EPS 835W and is thus integrated into the test bench concept of our MEP 2000 (see separate brochure). It serves for studies in the development and the application areas for complete common rail injection systems (CRS) with electronic control unit (vehicle equipment). In the past years, CR systems have successfully won recognition in the passenger car area and are now inexorably finding their way in the commercial vehicle sector. The development and application departments of almost all engine manufacturers are working at full stretch to enhance this potential development system.

The CA 4000 module already helps foster these intentions in many development departments.

Thanks to our collaboration with various customers throughout the world, we are resorting to a great know-how with this test bench.

The test bench lives both on our experience that has evolved over the years and on the innovation of our customers. Based on a standard version, it is always adapted through options to customer specifications.

Setup

Our fuel injection pump test benches EPS 818W or EPS 835W form the basis of the module (with NFZ applications, the EPS 835 W should be employed – Please find details on these test benches in our MEP2000 brochure.

In its standard version, the module itself consists of:

- Special mechanical and hydraulic configuration for the adjustment to different CR systems (can also be achieved in quick change technology)
- Safety devices (such as splash guard or sound insulating, bursting disk, pressure control valve, pressure gauge, etc.)
- Control cabinet for the handling of test bench functions and the accommodation of measuring devices (partly)
- Computer cabinet and equipment with Prisma NT software and interface connection to, e.g., Inca PC to the electronic control unit of the customer. Equally to accommodate additional measuring devices.

The application – as close as possible to the vehicle:

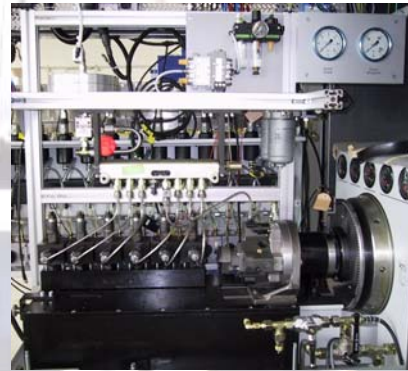
BOSCH



Study of the whole injection equipment on a single platform.

Selective measurements on a component to illustrate its function in the interaction (injector, rail, pump, ...).

Different manufacturers can be applied (depending on the equipment).



SIEMENS

DELPHI
Automotive Systems

DENSO

Integration of the various measuring systems:

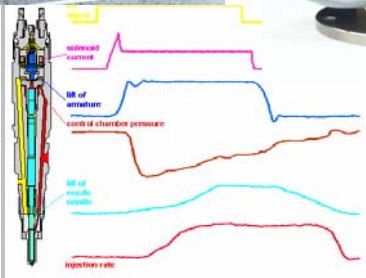


Starting with classics like EMI2, KMM and EVI, more measurement options can be integrated.

EMI21, torque measuring, quick analog measuring, etc. are only a few variants.



Please contact us- there is certainly something that fits your application



Temperature chamber – tighten the basic conditions:

*How does an injection system react at -40 or 140°C ?
Do 95% humidity have an effect on my injected fuel quantity?
One of the absolute high end options are our upgrades with temperature or climatic chambers.*



Prisma NT – The software –

Core components are the type and sequence data editor (see right). A test sequence is generated with this editor in a very easy and flexible manner. Many optional “load levels” can be created with an arbitrary number of steps and special measurements in any order whatever. All result data are available in an Access database or as ASCII Data. Consequently, further processing with Excel or other evaluation programs is possible without any problems.

