

A custom-made motor test bench – with EtherCAT connection

The French test bench manufacturer Dynosens received an order to develop a motor test bench for electric vehicles and needed an interface to connect the T40B torque transducer to the EtherCAT fieldbus. The TIM-EC interface module, which HBM was just bringing onto the market at that time, was ready for use from the very start.

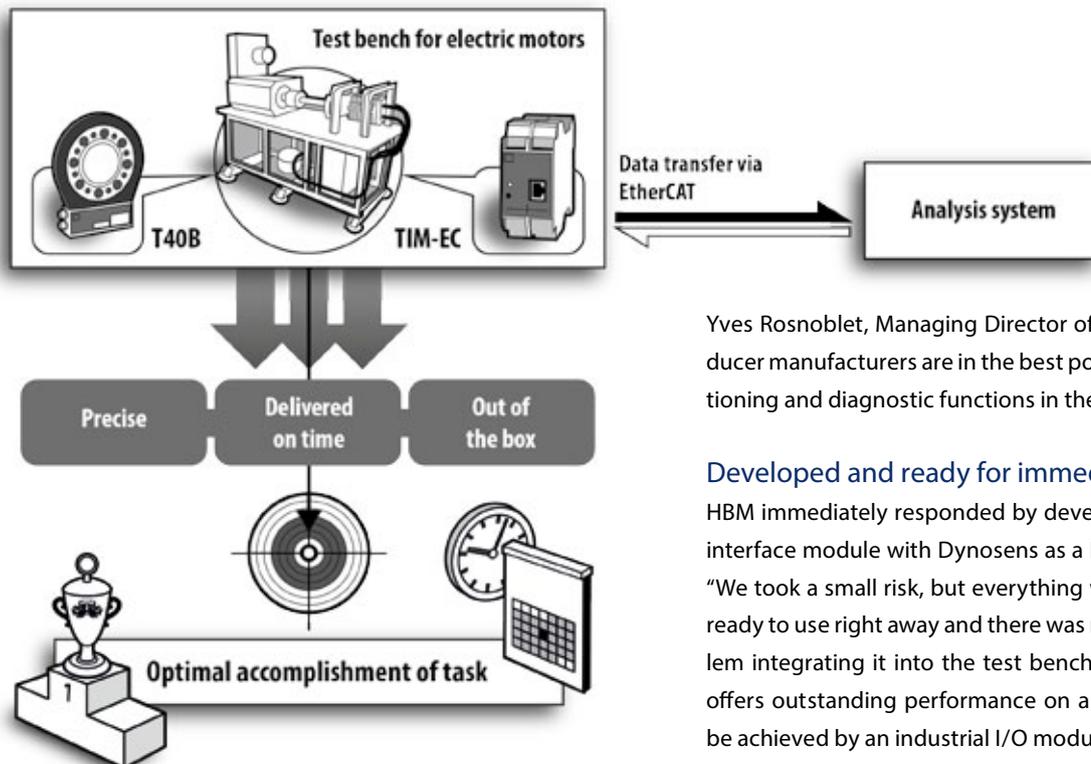
The characteristic curve of the motor controller had to be examined for a development project consisting of a test bench for electric motors. The measurement data had to be transferred to an analysis system to do this – via an EtherCAT fieldbus according to the specifications.

T40B – but with EtherCAT coupler, please

HBM has been the main supplier of force and torque transducers for Dynosens for 15 years. They decided to use the T40B torque transducer for the development of the electric motor test bench. Dynosens needed an EtherCAT coupler for the T40B to make optimum use of the capabilities of the transducer but HBM did not have one available at the time.



The motor test bench developed by Dynosens for electric vehicles, with T40B torque transducer and TIM-EC EtherCAT interface module



Yves Rosnoble, Managing Director of Dynosens explains, “Transducer manufacturers are in the best position to develop the conditioning and diagnostic functions in their fieldbus couplers.”

Developed and ready for immediate use

HBM immediately responded by developing its TIM-EC Ether-CAT interface module with Dynosens as a BETA tester. Rosnoble says, “We took a small risk, but everything went well. The product was ready to use right away and there was not even the slightest problem integrating it into the test bench. With 25-bit resolution, it offers outstanding performance on a level that cannot normally be achieved by an industrial I/O module”.