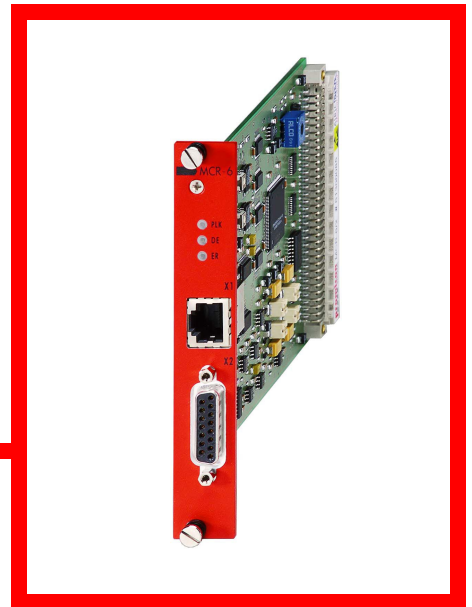


# modular motion control

# SYSTEM-90E



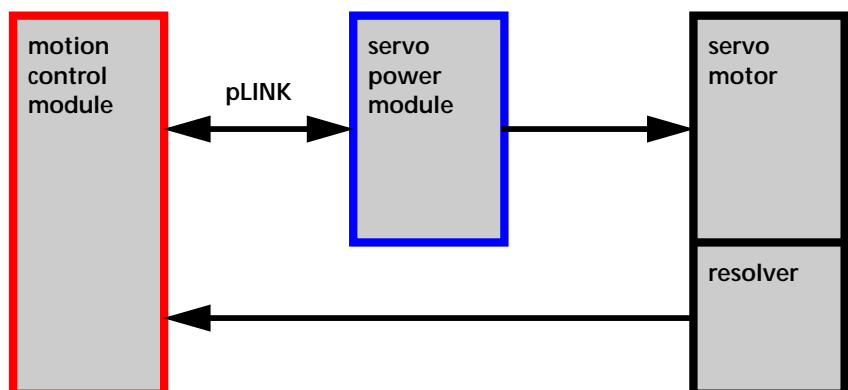
**MCR-6**  
Motion control module  
for  
resolver motors

This motion control module serves to control servo motors equipped with a resolver for position detection.

Within a control system, this module can be randomly combined with other motion control and axis modules to create multi-axis topologies, whereby setting parameters for and programming of the respective axes is identical.

Together with a servo power module, this module is especially suitable for driving AC servo motors, as it provides a low-cost solution for position detection.

- Position detection using a commercially available resolver
- High control quality through resolver snapshot evaluation without any delay
- Optimum motion design with defined acceleration and jerk control
- Setting of parameters and performing diagnosis are made easy by following fully digitalized routines
- Can be combined with servo power modules for driving motors with a power rating of up to 11 kW
- Direct connection of a servo power module via the uniform pLINK interface





### ► Position detection using a resolver

The MCR-6 motion control module uses a resolver for position detection. The resolver has the advantage of being relatively small in size and in addition it is inexpensive.

The resolver is connected directly on the motion control module. Connecting the resolver to the servo power module is not necessary, thus simplifying wiring.

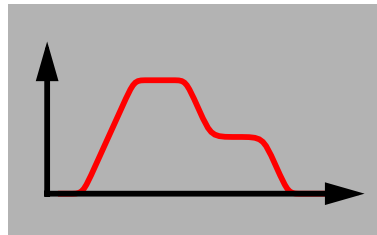
Appropriate motion control modules are available for other position detection methods. They can be combined in any manner in multi-axes applications.

### ► Position command with control

Every motion-control module is equipped with a quick-reacting position command generator. This creates a sequence of time-equidistant high-resolution set points from the data for the prescribed run sequence (target position, velocity, acceleration, and jerk).

Together with the ultra-precision jerk control, this produces an especially harmonic motion profile which minimizes wear on the mechanical elements.

A special feature is that a motion will be started within one millisecond without any delay. In addition, velocity and target position can also be modified while a specific motion is still going on.



### ► Servo power modules

For motors of varying power there are different servo power modules available. They can be combined in any desired manner with the available motion control modules.

- **TrioDrive C**  
Continuous current 2 to 6A<sub>rms</sub>  
Power supply 1 × 230V<sub>AC</sub>
- **MidiDrive C**  
Continuous current 2 to 20A<sub>rms</sub>  
Power supply 3 × 400/480V<sub>AC</sub>



### ► Servo motors of any type

Since all the properties of the servo motor can be set digitally, the MCR-6 motion control module can control virtually any motor equipped with a resolver.

This means that for any given installation the most suitable motors can be selected and combined regardless of their respective manufacturers.

#### Technical specifications

Resolution resolver	8192 increments per period
Accuracy of the evaluation	±5 arc minutes
Monitoring	Line break Vector amplitude
Motor temperature monitoring	PTC with settable switching threshold
Speed	2 x 10 <sup>6</sup> measurement steps / second