

NR8000-v3 – Option servo control



Fig.: NR8032 for 32 zones

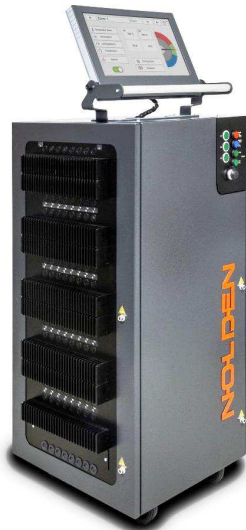


Fig.: NR8064 for 64 zones

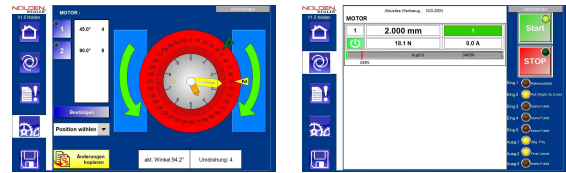


Fig.: Examples touchscreen operation

- **Servomotor operation directly from the hotrunner temperature controller**
- **All current servodrives and encoder types can be used**
- **Signal exchange with the injection press via interface, e.g. EUROMAP**
- **Comfortable, easy to understand touchscreen operation**
- **Available for all controllers NR8000, can also be retrofitted**

Application :

Hotrunner diagnosis and process devices series NR8000 with touchscreen operation can be fitted with integrated servodrive operation as an option. All types of motors and position sensors can be used. The option described hereunder gives you an easy and economic way to realise any linear or rotatory motion control for your mould or hotrunner.

All necessary control hardware is mounted directly into the casing of the hotrunner controller, this makes operation and wiring of the system very easy and space-saving. All operation menus of the touchscreen system follow a similar logic, this makes work with the system intuitive and easy to learn. Common functions such as loading the mould data from the memory only need to be done once.

Mounting of the servo option can also be done later on any NR8000 controller. The only detail to be watched is casing space for all desired options in the future. Thus, buying a smaller system in a bigger casing (e.g. medium or big

tower for NR8000) might be a smart solution. This also permits to install additional heating zones later on.

Servomotor :

The servo control option is available for 1 up to 3 axis, a higher number of drives is available on demand. Each drive can be programmed individually. In automatic operation mode, you can enter speed, acceleration and deceleration as well as an eventual delay time relative to the control signals of the injection press, for every segment of the motion process. By doing so (and with several drives), you can obtain also a sequential valve gate operation for your hotrunner.

Position data for every segment of the motion progress can be entered numerically or in manual mode by „Teach-in“.

To make your touchscreen operation as user friendly as possible, you can pre-set either linear or rotatory screen visualization scheme.

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All screen menus and data entry fields will then be adapted automatically.

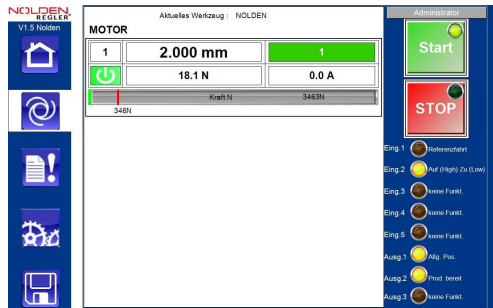


Fig.: Touchscreen menu for automatic operation „Linear visualization scheme“

In continuous operation, position, motor load current and torque are being monitored and displayed (see above), so that eventual abnormalities in mechanical motion components can easily be detected. The following operation modes can be selected:

Automatic (continuous) operation :

All drives execute the pre-set motion segments, this is being performed either time-dependant or signal dependant with external digital inputs from the injection press (or any other PLC device).

Manual operation / Teach-in / Test :

Every drive can be run individually in manual mode, the actual position is being displayed in

1/1000mm steps. Speed, acceleration and deceleration can be set independently from continuous operation (mostly slower). Manual mode permits also to set and save all individual positions for the automatic operation (Teach-in).

Digital signals from the injection press can be simulated in manual mode by using a small manual operation unit, which comes standard with the system.

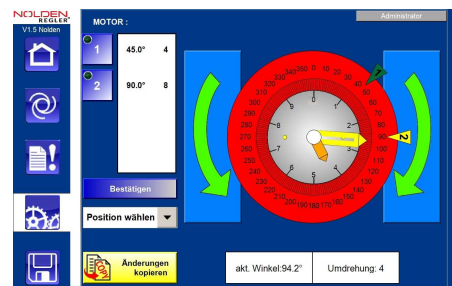


Fig.: Touchscreen menu for manual operation „Rotatory visualization scheme“



Fig.: Manual operation unit / Emergency-STOP

Specification :

Servomotors

- 400V AC Synchronmotors with encoder, peak current max. 16A
- System pre-set for encoders with HIPERFACE, types TTL, Sin/Cos,

Incremental- and Hall sensors to be set on demand by NOLDEN

Other motor and sensor references on demand

Please take into account the specification of the hotrunner controller accordingly !

Product overview

Product :

- Option Servomotor control NR8000 1 axis
- Option Servomotor control NR8000 2 axis
- Option Servomotor control NR8000 3 axis

Art.-number :

83xxx.x3x
83xxx.x32
83xxx.x33