

**Instruction manual for the digital motor controller**  
**- for honey extractors -**  
**Typ: AMV-230-250A, AMV-230-350A, AMV-12-350A**

**Commissioning**

During delivery the controller is attached to the basket in the extractor. First, it must be hung on the bracket that is welded to the side of the extractor. The frequency converter is located under the extractor.

Then connect the device in the switched-off state to the appropriate electrical network provided with FI relays. Switch on the device using the rocker switch located on the plug. Then you can start the device by pressing the Start/Stop button.



**Front of the unit**

1. START/STOP-button
2. PROGRAM-button
3. Speed control rotary knob
4. Digital Display

## **Operating modes**

The device can work in 3 different modes, which are the following:

1. Manual mode (sign M) for tangential extraction - continuous rotation in the selected direction until the stop button is pressed.
2. Radial mode (sign R) for radial extraction – timed, uniformly accelerated rotation in one direction. The direction can be chosen.
3. Automatic mode (sign A) for self-turning extraction - automatic back and forth rotation with change of direction of rotation.

## **Speed setting**

The rotary knob can be used to set the desired speed, even changing it during operation. To increase the speed, the knob must be turned towards 100%, to decrease the speed, towards 0%.

The numbers around the knob show the percentage value of the speed. The speed can be set 0-400 revolutions/minute.

Turning the knob does not change the strength of the braking during the braking phase. The strength of the braking is determined by the position before the braking phase.

## **Selection of the operating mode**

The set operating mode can be seen at the top of the left side of the display. While the PROGRAM button is held down, the START/STOP button must be pressed. The display shows M for manual mode, then R for radial mode, then A for automatic mode for self-turning extractor mode.

## **Manual mode**

First, the operating mode shown on the display with M must be selected. The arrow at the bottom of the display shows the selected direction of rotation. The direction of rotation can be changed by pressing the black PROGRAM button. Then the desired speed must be set with the rotary knob. The extraction starts when the START/STOP button is pressed and can also be stopped by pressing this button.

## Radial mode

First, the operating mode shown on the display with R must be selected. The arrow at the bottom of the display shows the selected direction of rotation.

By pressing the black PROGRAM button, the duration of the extraction process can be selected, together with the direction of rotation. The selectable runtimes for radial spin are 300, 360, 480 and 600 seconds in one direction. When the PROGRAM button is pressed again, these runtimes can be selected to the other direction of rotation. The final speed can be set with the rotary knob and can even be changed during the extraction process. The display shows the set speed on the left. The extraction starts at approx. 60 % of the set speed and is gradually accelerated to the set final speed during the extraction process. The extraction starts by pressing the START/STOP button and can also stop, by pressing this button if necessary.



## Automatic mode for self-turning extractor mode

First, the operating mode shown on the display with A must be selected. This operating mode includes four programs, the runtimes are already pre-programmed. The programs each consist of three cycles. In the first and the third cycle the basket rotates in one direction, in the second cycle in the other direction.

The final speed can be adjusted with the rotary knob and can even be changed during the extraction process. The programs can be selected by pressing the program button. When the desired program is selected, the red START/STOP button must be pressed to start the program.



Runtimes of the cycles in seconds

	I.	II.	III.	Total
Program 1.	25	40	35	100
Program 2.	55	90	70	215
Program 3.	60	120	100	280
Program 4.	85	140	120	345

The first cycle is the pre-extraction, its speed is 60% of the set speed. When the first cycle expires, the extractor slows down. Braking lasts about 6-10 seconds, then the extractor remains at rest for another 3-4 seconds before it starts to rotate in the opposite direction.

Then the extractor changes the direction of rotation and the second cycle runs, the spinning out of the other side of the honeycomb. The speed matches the set speed.

Then the extractor changes the direction of rotation again and the third cycle runs, the spinning out of the first side of the honeycomb. The speed matches the set speed.