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## MINISTAR 40 control

/// Data Sheet

The new MINISTAR series by IKA: Developed using the latest cutting-edge technology, this high-tech overhead stirrer with its compact design is ideal for special applications.

Combining high performance with particular excellence, they require minimum space and come with a lifetime guarantee. See for yourself:

“The Universal” in the high-tech mini class, reaches up to 1000 RPM!

- Hardened glass enclosed, fast response display for maximum visibility and chemical resistance



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- State-of-art vibration sensors detect deviations from permissible thresholds and automatically stop the process
- Clear display for all essential information at a glance
- Integrated timer / counter for the control of kinetic sensitive reactions and reminders
- Viscosities up to 30,000 mPas and volume of up to 25 l
- Continuously adjustable speed between 0/30 – 1,000 rpm
- USB interface, e.g. for documenting parameters using labworldsoft® or installing firmware updates
- Intuitive and simple handling; touch-sensitive surface for long service life
- Temperature reading on display
- Chemical resistant housing
- Key lock function
- Microprocessor-controlled speed governor for constant rotational speed, even with changes in viscosity

#### Scope of delivery

- MINISTAR 40 control
- R 300 shaft protector
- Fasten screws for R 300 (2 pcs.)
- H 67.60 Temperature sensor, stainless steel
- chuck key



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## Technical Data

|   |  |
|---|--|
| Stirring quantity max. per stirring position (H <sub>2</sub> O) [l] | 25   |
| Motor rating input [W]  | 60   |
| Motor rating output [W]   | 46   |
| Motor principle   | Brushless DC                                   |
| Speed display   | LCD  |
| Speed range [rpm]   | 0/30 - 1000                                    |
| Viscosity max. [mPas]   | 30000  |
| Output max. at stirring shaft [W]                                   | 42   |
| Permissible ON time [%]   | 100  |
| Torque max. at stirring shaft [Ncm]                                 | 40   |
| Speed adjustment  | Turning knob                                   |
| Setting accuracy speed [rpm]  | ±1   |
| Deviation of speed measurement n > 300rpm [%]                       | ±1   |
| Deviation of speed measurement n ≤ 300rpm [rpm]                     | ±3   |
| Stirring element fastening  | chuck  |
| Connection for ext. temperature sensor                              | PT1000   |
| Temperature display   | yes  |
| Chuck range diameter [mm]   | 0.5 - 8.2                                      |
| Hollow shaft, inner diameter [mm]                                   | 8.5  |
| Hollow shaft (push-through - when stopped)                          | yes  |
| Fastening on stand  | extension arm                                  |
| Extension arm diameter [mm]   | 13   |
| Extension arm length [mm]   | 160  |
| Torque display  | yes  |
| Speed control   | electronic                                     |
| Nominal torque [Nm]   | 0.4  |
| Torque measurement  | trend  |
| Deviation of torque measurement I [Ncm]                             | ±4   |
| Timer   | yes  |
| Timer display   | LCD  |
| Time setting range [min]  | 1 - 6000                                       |
| Temperature measuring range [°C]                                    | -10 - 350                                      |
| Temperature measurement resolution [K]                              | 0.1  |
| Accuracy of temperature measurement [K]                             | ±0.5 + tolerance PT1000 (DIN EN 60751 Class A) |
| Limit deviation temperature sensor [K]                              | ≤ ± (0.15 + 0.002xITI)                         |
| Housing material  | alu-cast coating / thermoplastic polymer       |
| Dimensions (W x H x D) [mm]   | 70 x 193 x 154                                 |
| Weight [kg]   | 1.72   |
| Permissible ambient temperature [°C]                                | 5 - 40   |
| Permissible relative humidity [%]                                   | 80   |
| Protection class according to DIN EN 60529                          | IP 54  |
| USB interface   | Micro-USB                                      |
| WPAN interface  | yes  |
| Voltage [V]   | 100 - 240                                      |
| Frequency [Hz]  | 50/60  |
| Power input [W]   | 69   |
| DC Voltage [V=]   | 24   |
| Current consumption [mA]  | 2900   |



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