

## designed for scientists



#### **MINISTAR 20 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 Fast One" in the high-tech mini class, perfect for low viscosities!

- 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 10,000 mPas and volumes of up to 15 l
- Continuously adjustable speed between 0/30 2,000 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







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#### **Technical Data**

| Technical Data   |  |
|--|--|
| Stirring quantity max. per stirring position (H2O) [I] | 15   |
| Motor rating input [W]                                 | 60   |
| Motor rating output [W]                                | 46   |
| Motor principle  | Brushless DC                                   |
| Speed display  | LCD  |
| Speed range [rpm]                                      | 0/50 - 2000                                    |
| Viscosity max. [mPas]                                  | 10000  |
| Output max. at stirring shaft [W]                      | 42   |
| Permissible ON time [%]                                | 100  |
| Torque max. at stirring shaft [Ncm]                    | 20   |
| Speed control  | Turning knob                                   |
| Setting accuracy speed [±rpm]                          | 1  |
| Deviation of speed measurement n > 300rpm [±%]         | 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]                            |  |
| Extension arm length [mm]                              | 160  |
| Torque display   | yes  |
| Speed control  | electronic                                     |
| Nominal torque [Nm]                                    | 0.2  |
| Torque measurement                                     | trend  |
| Deviation of torque measurement I [±Ncm]               | 3  |
| Timer  | yes  |
| Timer display  | LCD  |
| Time setting range [min]                               | 0 - 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]                 | $\leq \pm (0.15 + 0.002 \text{xITI})$          |
| Housing material                                       | alu-cast coating / thermoplastic polymer       |
| Communication distance (depend onbuilding) max. [m]    | 150  |
| Dimensions (W x H x D) [mm]                            | 70 x 193 x 154                                 |
| Weight [kg]  | 1.56   |
| Permissible ambient temperature [°C]                   | 5 - 40   |
| Permissible relative humidity [%]                      | 80   |
| Protection class according to DIN EN 60529             | IP 54  |
| USB 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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