



designed for scientists



## MICROSTAR 30 control

/// Data Sheet

The new MICROSTARS 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 Strong One” in the smallest high-tech class, reaches up to 500 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 20,000 mPas and volumes of up to 20 l
- Continuously adjustable speed between 0/30 – 500 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

## Technical Data

|                                                            |                                                    |
|------------------------------------------------------------|----------------------------------------------------|
| Stirring quantity max. per stirring position (H2O) [l]     | 20                                                 |
| Motor rating input [W]                                     | 32                                                 |
| Motor rating output [W]                                    | 22                                                 |
| Motor principle                                            | Brushless DC                                       |
| Speed display                                              | LCD                                                |
| Speed min. [rpm]                                           | 30                                                 |
| Speed min. [rpm]                                           | 0/30                                               |
| Speed max. [rpm]                                           | 500                                                |
| Viscosity max. [mPas]                                      | 20000                                              |
| Output max. at stirring shaft [W]                          | 15.7                                               |
| Permissible ON time [%]                                    | 100                                                |
| Torque max. at stirring shaft [Ncm]                        | 30                                                 |
| Torque max. at stirring shaft at 60 1/min (overload) [Ncm] | 30                                                 |
| Torque max. at stirring shaft at 100 1/min [Ncm]           | 30                                                 |
| Torque max. at stirring shaft at 1.000 1/min [Ncm]         | 30                                                 |
| torque I max. [Ncm]                                        | 30                                                 |
| Speed range I (50 Hz) [rpm]                                | 30 - 500                                           |
| Speed range I (60 Hz) [rpm]                                | 30 - 500                                           |
| Speed control                                              | Turning knob                                       |
| Setting accuracy speed [ $\pm$ rpm]                        | 1                                                  |
| Deviation of speed measurement $n > 300$ rpm [ $\pm$ %]    | 1                                                  |
| Deviation of speed measurement $n < 300$ rpm [ $\pm$ rpm]  | 3                                                  |
| Stirring element fastening                                 | chuck                                              |
| Connection for ext. temperature sensor                     | PT1000                                             |
| Temperature display                                        | yes                                                |
| Chuck range diameter [mm]                                  | 0.5 - 8                                            |
| 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]                                        | 0.3                                                |
| Torque measurement                                         | trend                                              |
| deviation of torque measurement I [ $\pm$ 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]                    | $\pm 0.5$ + tolerance PT1000 (DIN IEC 751 Class A) |
| Limit deviation temperature sensor [K]                     | $\leq \pm (0.15 + 0.002 \times  T )$               |
| housing material                                           | alu-cast coating / thermoplastic polymer           |
| communication distance (depend onbuilding) max. [m]        | 150                                                |
| Dimensions (W x H x D) [mm]                                | 60 x 173 x 136                                     |
| Weight [kg]                                                | 1.26                                               |
| Permissible ambient temperature [°C]                       | 5 - 40                                             |



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|                                            |           |
|--------------------------------------------|-----------|
| 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]                            | 32        |
| DC Voltage [V=]                            | 24        |
| Current consumption [mA]                   | 1300      |

