



designed for scientists



## TWISTER SET 1

/// Data Sheet

TWISTER is a universal and compact mixing device with magnetic drive. In the TWISTER SET 1, one drive is included.

In the default version, TWISTER is a powerful single-position magnetic stirrer for mixing up to 5 liters at a maximum speed of 3000 rpm and a viscosity of up to 500 mPas.

By connecting additional TWISTER stirring units (available as accessories, ID no. 0020112621), TWISTER can be expanded to a multi-position magnetic stirrer with up to 30 stirring positions.\* The stirring positions can be controlled either separately or simultaneously (leader-follower principle).



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#### Versatile accessories

With the multi-position stirring attachment TW.IX, the drive is transformed into a magnetic stirrer with 9 stirring positions for efficient mixing of sample vessels with small volumes (8 - 60 ml).

The TW.VX shaker attachment transforms the universal magnetic drive into a vortex or orbital shaker.

#### Innovative operating concept

TWISTER enables a new way of interaction between user and laboratory instrument. Via the intuitive and chemically resistant 360° LED glass display, all information is intuitively conveyed without any alpha-numeric display. During operation, either the speed or the power required for stirring can be displayed. For example, viscosity changes can be observed and displayed as a percentage.

Mixing can be started by pressing a button as well as (thanks to integrated beaker recognition) by placing or touching the beaker.

The reverse function changes the direction of rotation at definable time intervals. This leads to a significant improvement of the mixing result, especially with samples that are difficult to mix.

#### Robust and safe

The high protection class IP 66 allows operation under harsh conditions. TWISTER can thus be cleaned under the tap, for example, or operated in an incubator at temperatures up to 40°C.

The compact and innovative design has already been awarded the reddot Award 2022. It is particularly suitable for use in laboratories with limited space.

\* Depending on the number of devices, a different power supply may have to be used. The included power supply is designed to power up to two devices.



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## Technical Data

|   |                |
|---|----------------|
| Number of stirring positions  | 1              |
| Stirring quantity min. per stirring position (H2O) [l]  | 0.005          |
| Stirring quantity max. per stirring position (H2O) [l]  | 5              |
| Maximum load [kg]   | 7.5            |
| Motor rating output [W]   | 5              |
| Direction of rotation   | right / left   |
| Speed display set-value   | LED            |
| Speed display actual-value  | LED            |
| Speed adjustment  | Touch key      |
| Speed range [rpm]   | 100 - 3000     |
| Setting accuracy speed [rpm]  | 100            |
| Stirring bar length [mm]  | 10 - 30        |
| Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) [K]                             | +6             |
| Set-up plate material   | glass          |
| Set-up plate dimensions [mm]  | 124 x 124      |
| Automatic reverse rotation  | yes            |
| Intermittent mode   | 6sec - 30min   |
| Viscosity trend measurement   | yes            |
| Speed deviation (no load, nominal voltage, at 1500rpm + 25 °C) [%]                                      | ±2             |
| Modular expandable stirring system (2-30 units)   | yes            |
| Leader- follower operation (minimum 2 units required, leader unit controls synchronously follower unit) | yes            |
| Vessel detection (optional activated/deactivated)   | yes            |
| Dimensions (W x H x D) [mm]   | 135 x 24 x 135 |
| Weight [kg]   | 0.6            |
| Permissible ambient temperature [°C]  | 5 - 40         |
| Permissible relative humidity [%]   | 80             |
| Protection class according to DIN EN 60529  | IP 66          |
| USB interface   | optional       |
| Voltage [V]   | 100 - 240      |
| Frequency [Hz]  | 50/60          |
| Power input [W]   | 10             |
| Power input standby [W]   | 2              |
| DC Voltage [V=]   | 24             |
| Current consumption [mA]  | 400            |