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UTTD control Tissue Solution

/// Data Sheet

Microbiological and molecular biological analysis of patient samples:

The crushing and breaking down of tissue, cartilage and bone samples is an essential step before the actual microbiological and molecular biological analysis of patient samples.

The challenges in this pre-operative step are to crush the sample homogeneously and not to contaminate the sample on the way to analysis.

With the ULTRA-TURRAX® Tube Drive P control, IKA offers a powerful universal dispersing drive that is operated in



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combination with patented disposable plastic tubes.

The sample tubes specially developed for in-vitro diagnostics are available in single or double sterile packaging and are already filled with 5 ml of 0.90% saline solution.

The sample is crushed with 10 stainless steel balls contained in the tube, which are set in motion with the help of the drive and a tumbler with up to 3000 revolutions. The accelerated balls crush the sample or reliably detach tissue from the bone. Any germs that may be present pass into the liquid phase (NaCl solution).

The sample material can be introduced into the sterile sample container directly in the operating room by opening the screw cap from the lid. The transport in the closed tube is hermetically sealed without the risk of cross-contamination. In the microbiological laboratory, the tube is placed directly on the drive and the sample is crushed. The samples can be taken via the pierceable membrane in the sample lid.

The lockable disposable sample tubes are transport containers, crushing containers and storage all in one. They reduce the cleaning effort and systematically rule out cross-contamination. Users benefit from reduced handling costs and a reduced number of incorrect diagnoses.

In the control variant of the ULTRA-TURRAX® Tube Drive, process parameters such as time and speed can be stored as a program - this ensures that samples are processed consistently. The direction of rotation can be reversed for demanding samples. Tests can be documented via a PC and the appropriate software and started automatically.

The disposable tubes BMT-20-S-IVD included in the package are a In vitro diagnostic product according to Directive 98/79/EG and manufactured according to ISO 13485:2016.

Approved for all EU countries.

Important note:

The maximum processing time for the tubes is 1 minute using an automated process similar to the ULTRA-TURRAX® Tube Drive.

If the processing time is longer, the mechanical load can become too great and leaks can occur. The process must be validated by the customer.

Please also note the operating instructions for the ULTRA-TURRAX® Tube Drive.

Features of the tubes:

- Volume [mL]: 20
- Working range [mL]: 5 - 15
- Functional unit: steel balls, 5mm
- Membrane cover: yes
- Sterile: yes
- IVD marking: yes



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- Packaging unit [pcs]: 50
- Applications: dry grinding, cell disruption, wet grinding
- Miscellaneous: incl. 5 mL NaCl solution

Scope of delivery

- ULTRA-TURRAX® Tube Drive P control
- BMT-20-S-IVD.50 Ball milling tube, sterile, IVD label, 20 ml



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Technical Data

Motor rating input [W]	36
Motor rating output [W]	28
Speed display	OLED
Speed range [rpm]	400 - 8000
Viscosity max. [mPas]	5000
Timer	yes
Timer display	OLED
Speed deviation [%]	3
Speed adjustment	10 RPM Steps
Noise without element [dB(A)]	50
Process type	batch
Reversible direction of rotation	yes
Dimensions (W x H x D) [mm]	122 x 54 x 178
Weight [kg]	1.3
Permissible ambient temperature [°C]	5 - 40
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 20
USB interface	USB-B
Voltage [V]	100 - 240
Frequency [Hz]	50/60
Power input [W]	36
DC Voltage [V=]	24
Current consumption [mA]	1500