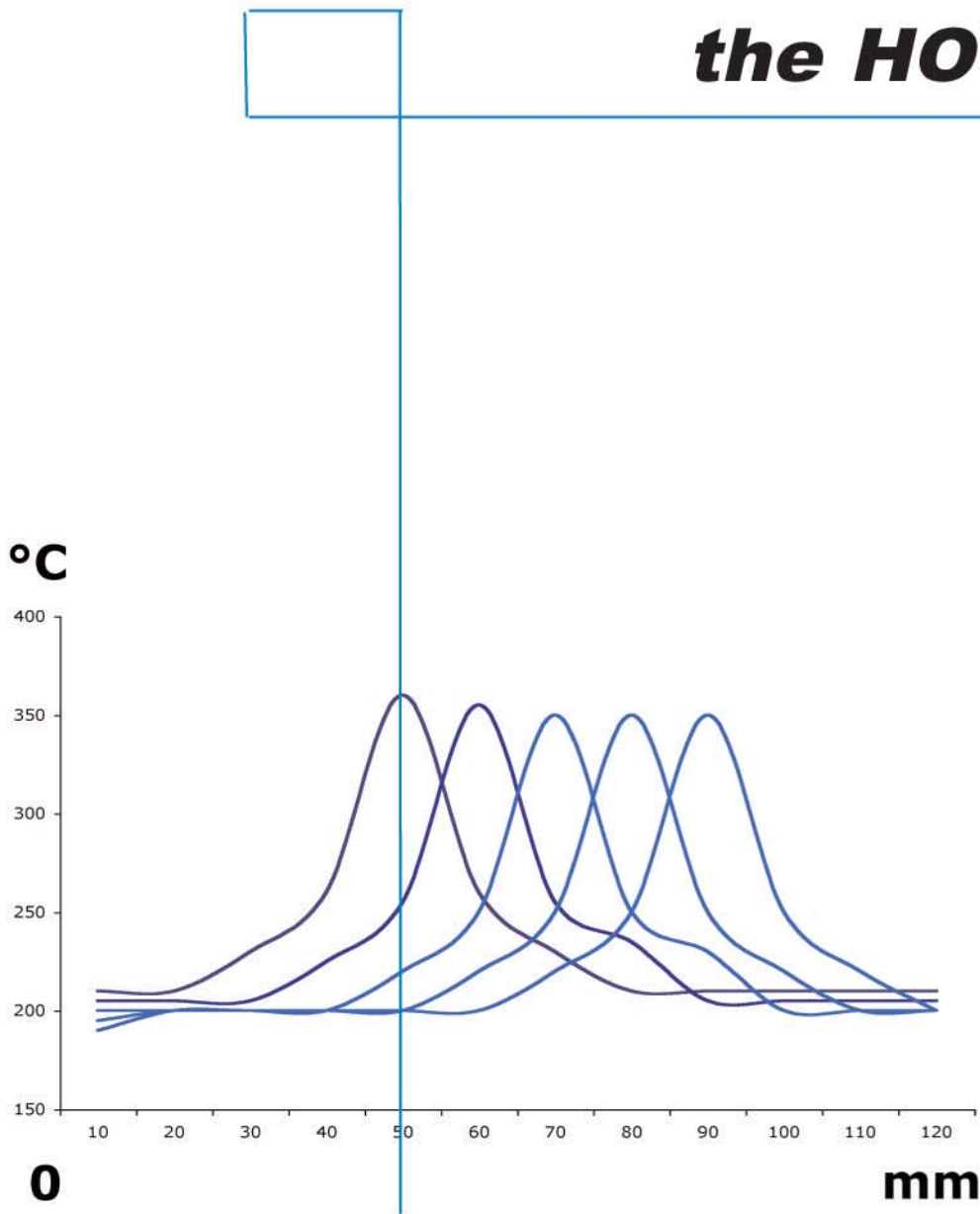# MIHAT
the HOT SPOT.

°C

mm

0

telab

MIHAT

Automatic Temperature Profile Measurement

Completely automatic temperature profile measurement

All standard type K NiCr-Ni temperature sensors can now be integrated in an automatic recording process with the new completely automatic TELAB temperature profile measurement system.

In doing so, the temperature sensor is moved automatically precisely to the millimetre in the reactor in a chemicals-resistant protective tube and the measurements are documented. The recording process can be completely automated by specifying recording processes.

Applications

A particular benefit of the temperature profile recording system is that manual recording procedures can be completely automated. Besides measurement sections, complete measurement routines can be assigned to upper and lower measuring points and read later.
The temperature measuring equipment operates completely automatically and stores the measurement data internally on an optional storage device of 16—128 MB.
Operation is user-friendly and performed using an high resolution LCD touchscreen monitor. All functions can be controlled using the touchscreen.
A RS232 interface and an Ethernet connection enable convenient selection of the measurement data and controlling external devices. The temperature filament can of course be replaced without problems at any time, so that the equipment can be adapted quickly for diverse applications.
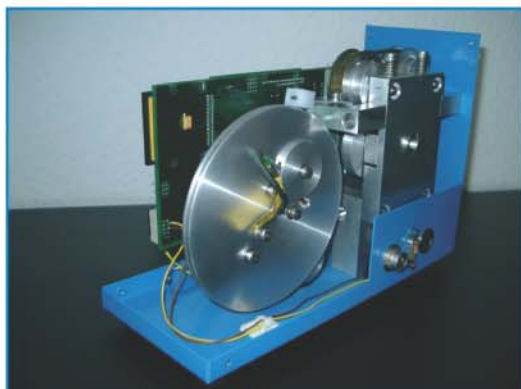
The Drive

Two or more spring loaded pairs of rollers, driven by a step motor, guarantee precise measurement and a long service life of the sensors used.
The service life of the temperature sensors is increased many times by means of a consistent pressing force and a self-adjusting function.
ches.

TELAB – temperature profile measuring equipment with user-friendly touchscreen technology

Manual settings:

Using a high resolution LCD touchscreen monitor

- selection of up to 16 temperature measuring points
- manual movement of the filament
- automatic search of the zero point
- start of an automatic and predefined measurement routine
- find maximum temperature
- display of temperature and position

External settings:

1. RS232 / 4-20mA port

- default measurement section
- default reactor length
- start of an automatic and predefined measurement routine
- display of temperature and position
- calibration and adjustment parameters
- query stored measurement data

2. Ethernet

- control of the stations in the network via a fixed IP address

3. Port for display

- data transmission between handheld and station
- direct power supply using the station

4. Alarm outputs

- for start / stop of external devices
- for alarm when limits are exceeded

Technical data

Temperature profile recording systems from 1 to 15 m

Type MIHAT	100	300	500	1.000	1.500
Measurement section in mm	0 - 1.000	0 - 3.000	0 - 5.000	0 - 10.000	0 - 15.000
NiCr-Ni temperature sensor	Typ K	Typ K	Typ K	Typ K	Typ K
Max. temperature in °C	900	900	900	900	900
Smallest measurement step	3	3	3	10	10
Minim. repeat measurement (in measuring series)	1 - 9	1 - 9	1 - 9	1 - 24	1 - 24
Storage volumes (Measurements)	1.500	3.000	6.000	12.000	12.000
Storage volumes in MB	16	32	64	128	128
Measurement accuracy	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %

Special designs and higher temperature measurement ranges are possible according to customer requirements.

Connections

The equipment can be directly connected using Swagelok / Gyrolok stainless steel threaded connections.

Other connections according to your choice are of course possible and will be purpose-built to the customer requirements.

We recommend the use of NiCr-Ni type K temperature sensors

Explosion protection

It is possible to charge the case with nitrogen for applications needing explosion protection.

ATEX EEx Types are also available.

Accessories available

for Type MIHAT					
Temperature sensors NiCR-Ni	1.000 mm	3.000 mm	5.000 mm	10.000 mm	15.000 mm
Pairs of drive rollers made of high-strength aluminium or stainless steel					
Handheld with touchscreen technology for 1m 16 or 128 temperature measuring points					
RS232 / Ethernet data transfer cable					
Central power supply 220 – 230 V or 110 V for supplying the measuring stations with 24 V DC and the touchscreen with 5 V DC					