



Questionnaire for Industrial Viscosimeters

Company:

Name of official:

Telephone: Fax:

Address:

.....

1. Preferable Instrument Type:

- Rotational viscosimeter with total measuring range: 5,0 ... 10⁷ mPas
- Capillary viscosimeter with total measuring range: 0,5 ... 10³ mPas
- Capillary viscosimeter with total measuring range: 0,5 ... 10⁴ mPas
(only for use without excess pressure; not explosion-proof version)

2. Information about product under study:

Kind of product under study:

- | | | |
|------------------------------------|----------------------------------------|---------------------------------------|
| <input type="radio"/> Plastic | <input type="radio"/> Paint or varnish | <input type="radio"/> Coating mass |
| <input type="radio"/> Elastomer | <input type="radio"/> Glue | <input type="radio"/> Pharmaceuticals |
| <input type="radio"/> Gum | <input type="radio"/> Lubricant | <input type="radio"/> Others |
| <input type="radio"/> Food product | <input type="radio"/> Printing ink | |

Aggregative state of product under study:

- | | | |
|------------------------------------|----------------------------------|--------------------------------|
| <input type="radio"/> Solution | <input type="radio"/> Suspension | <input type="radio"/> Emulsion |
| <input type="radio"/> Gel or Paste | <input type="radio"/> Melt | |

Viscosity:

- $\eta = \dots\dots\dots$ mPas at product process temperature of $\dots\dots\dots$ °C
- η unknown but is similar to: Water Motor oil Tar

Flow properties:

- | | |
|---------------------------------------------|------------------------------------------------------------|
| <input type="radio"/> Newtonian | <input type="radio"/> Structure-viscous (non-Newtonian) |
| <input type="radio"/> Plastic (yield point) | <input type="radio"/> time dependent (thixotropy/rheopexy) |



Requirements to sensor materials:

All parts in contact with medium under study are made from high quality steel 1.4571 (measuring system) or agate (plain bearings for sealed sensors) or PTFE (seals, if necessary).

Are these materials resistant against the medium under study: yes no

What other materials are necessary:

Are there solid substances in medium under study:

- yes, particles size from mm to mm
solid substances content from Ma/Vol% to Ma/Vol%
- no

Has the medium under study abrasive properties:

- no week strong

Further peculiarities of the medium under study:

- volatile film-forming
- others

3. Information about operating environment:

First of all, inform us, please, through our Homepage www.rheotest.de about technical details of different viscosity sensors. The most important are:

- Standard length for immersion viscosimeter
- Standard connections for flow viscosimeter
- Mounting position for the desired viscosimeter version

3.1 Installation in Tanks, Reactors or similar: yes no

Please attach to the Questionnaire a sketch with those dimensions of the tank that are important for installation of viscosimeter. Designate desired place for installation.



Desired flange connection:

Desired sensor length:cm

(the measuring system must be immersed constantly in medium under study; the decisive criterion is the minimal level in the vessel)

What are the foreseeing pressure conditions:

- conditions without excessive pressure
- operating pressure MPa

Temperature of medium under study during viscosity measurements: °C

Temperature fluctuations during viscosity measurements:K

Is explosion-proof necessary: yes no

What are the other kinds of protection to be foreseeing:

3.2 Installation in pipe lines: yes no

We recommend installation in a by-pass system as it will be easier to carry out maintenance later. However, viscosimeter could be installed in the main stream also.

Maximal operating pressure in foreseeing place of measurement :MPa

Maximal flow rate in foreseeing place of measurement:m³/h

Temperature of medium under study during viscosity measurements: °C

Maximal temperature fluctuations: °C

Is flowing sensor with temperature-controlled measuring cell necessary: yes no

Is electronic viscosity-temperature compensation necessary:

- yes, for temperature range °C
- no

Desired flange connection: DN PN

What are other desired types of connection:

Is explosion-proof necessary: yes no



What are the other kinds of protection to be foreseeing:

4. Technical requirements to the mains:

- 230 V AC / 50 Hz
- 110 V AC / 60 Hz
- others:
- 230 V AC / 60 Hz
- 24 V DC

5. Application purpose:

- Control of reactions course
- Regulation of mixing process
- Viscosity regulation by way of:
 - Temperature control
 - Solvents dosing
 - Solvents carry out
 - others
- Optimization of production and processing methods
 - Dispersion
 - Homogenization
 - others
- Monitoring of maturation time or pot life
- Continuous intermediate and/or finite control of product quality

6. Measuring Values output:

We offer for choice 3 following versions:

- Output signal** (viscosity proportional) 4 ... 20 mA
- Viskoprocessor KS 98** as plug-in unit for control panel
Output signal 4 ... 20 mA (viscosity proportional or temperature-compensated)
and the following additional functions:
 - Permanent indication of viscosity, temperature and measuring range reliance
 - Electronic viscosity-temperature compensation
 - Limit value setting
- Additional interface RS485 is desirable



- **Electronic unit in the casing** for wall installation (with integrated power supply unit and viscoprocessor KS 98)
- Additional interface RS485 is desirable

7. Supplementary Requirements/Wishes: