



# CAPILLARY VISCOMETER

## KV100

IN-LINE/ON-LINE PROCESS CONTROL



Capillary Viscometer KV100-F  
with synthetic continuous-flow chamber



Capillary Viscometer KV100-25  
with stainless steel continuous-flow chamber

## PROCESS VISCOMETERS KV100

Process viscometers KV100 are especially suited for continuous measurement, sensitive control, and regulation of medium-viscosity and low-viscosity media. The devices work on the **principle of a capillary viscometer** with continual volume flow and measurement of pressure decrease over the measuring capillary.

## STRUCTURE AND FUNCTION

The pressure decrease between the two ends of the measuring capillary, which is proportional to viscosity, is determined by two pressure sensors, or it is directly measured by differential pressure transducer. Pressure difference is transformed into an electric standard signal, which can be used for display and as a control signal.

The inlet of the aspiration tube is located in a continuous-flow chamber through which the medium can flow in a main or partial stream (bypass) from low up to medium process pressures.

Process viscometer can be completed with an electronic indicator for more functions of instrument control, signal processing, as well as temperature adjustment of viscosity.

## TECHNICAL DATA

	KV100-F	KV100-25 or KV100-Ex
Viscosity ranges	0...500 mPas / 0...2000 mPas	0...3 mPas / 0...10 mPas / 0...100 mPas 0...500 mPas / 0...2000 mPas
Accuracy	± 1 % of maximum viscosity value	± 1 % of maximum viscosity value
Pressure range	0 – 0.25 MPa	0 – 2.5 MPa
Temperature range	- 25° C... + 150° C	- 25° C... + 150° C
Ambient temperature	- 25° C... + 50° C	- 25° C... + 50° C
Position of installation	optional	optional
Protection-class	IP 54	IP 54
Explosion-protection	no	yes (for KV100-Ex)
Power supply for drive	230 V AC / 50 or 60 Hz	230 V AC / 50 or 60 Hz
Output signal	0...10 V	4...20 mA

## APPLICATIONS (EXAMPLES)

- paints, lacquers
- glues, adhesives
- silicone fluids
- oils, resins
- lubricants
- dairy products
- detergents
- polymer solutions
- melted fatty matters
- emulsions

## SPECIAL ACCESSORIES

- continuous-flow chamber (stainless steel or synthetic materials)
- temperature sensor Pt100 (optionally with transducer)
- display device for measuring data
- software with temperature correction of viscosity

**rheotec**

Messtechnik GmbH  
Schutterwälder Straße 23  
D-01458 Ottendorf-Okrilla  
Phone: + 49 (03 52 05) 5 99 03-0  
Fax: + 49 (03 52 05) 5 99 03-20  
Internet: [www.rheotec.de](http://www.rheotec.de) · e-mail: [info@rheotec.de](mailto:info@rheotec.de)  
rheotec reserves the right to change this product without notice