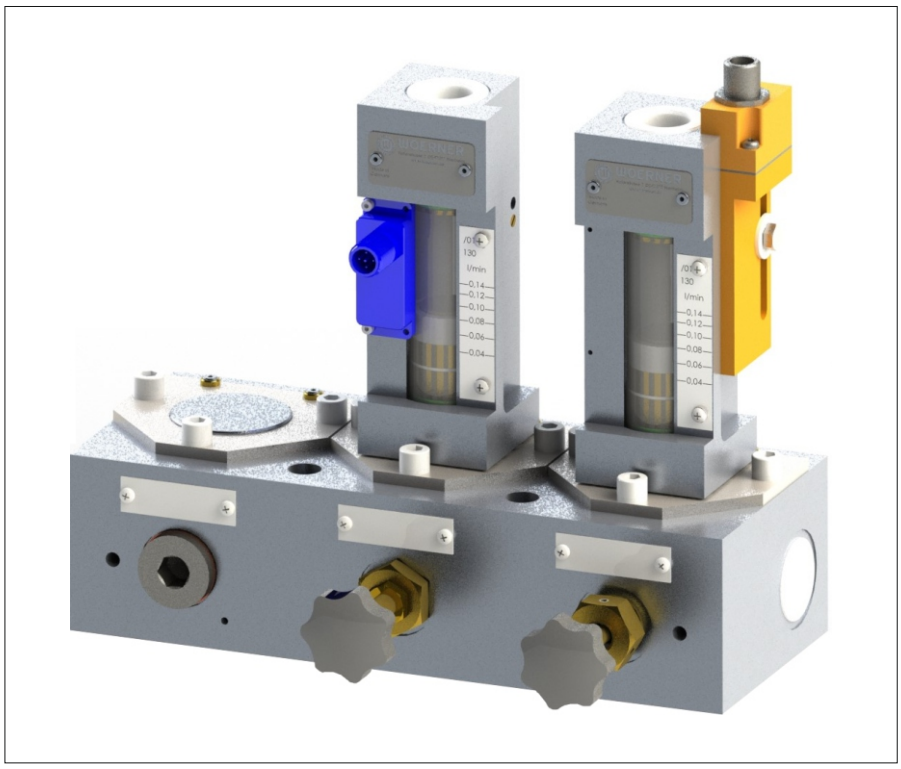
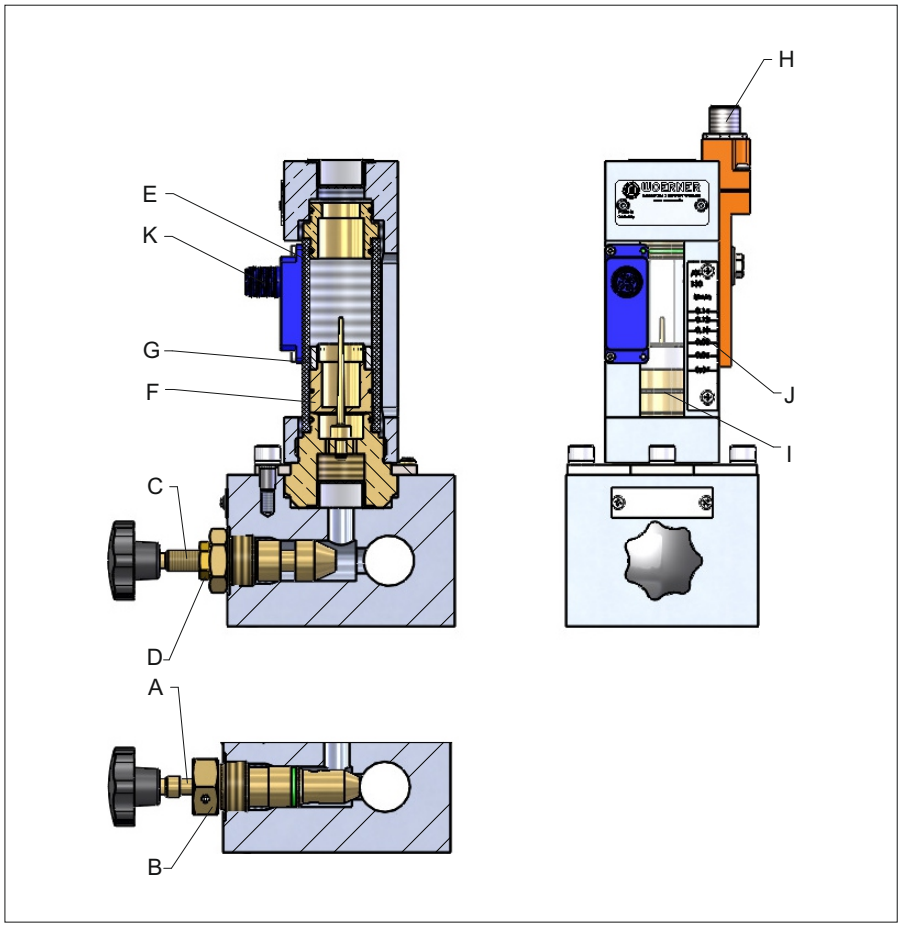
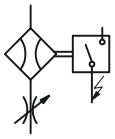




Volume flow indicator
KUI-B01



Volume flow-measuring device with throttle and stop valve in bloc design

Use:

For oil lubrication systems

- **Assembly in rows within smallest spaces available**
- **Optical and electrical monitoring of the volume flow**
- **Progressively adjustable volume flow**
- **A variety of control elements permit target volume flow rates with diverse ranges of tolerance to be electrically monitored**
- **Control elements optionally with function display (cable socket with LED)**

Construction and function:

A float **F** with screen hole moves in a cylindrical viewing tube **E**. When flown through from bottom to top, the float **F** adjusts itself to a certain height and visually shows the volume flow by means of a ring mark **I** available on the scale **J**. The control element **H** or **K** can monitor the float body's position electrically.
In the block, every volume flow indicator a throttle valve **A** resp. **C** is allocated to by means of which volume flow can be set or stopped.

Note to functional drawing:

A = Fine throttle (size 01 ... 10)
B = Fixing screw
C = Throttle (size 25 ... 300)
D = Lock-nut
E = Viewing tube
F = Cylindrical viewing tube
G = Magnet
H = Control element
I = Ring mark
J = Scale
K = Analog transmitter

- Subject to modifications -

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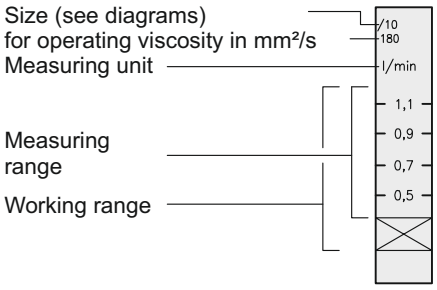
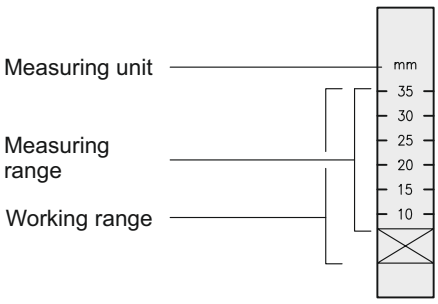
Data sheet **P0180.03.20 EN**
Replaces P0180.02.20 EN

Display scale (A) (B) (C)



Within the working range the float with its ring mark can move.
The volume flow meter should be chosen so that during normal operation the float with its ring mark will remain within the measuring range (accuracy of indication).

Display scale (M)

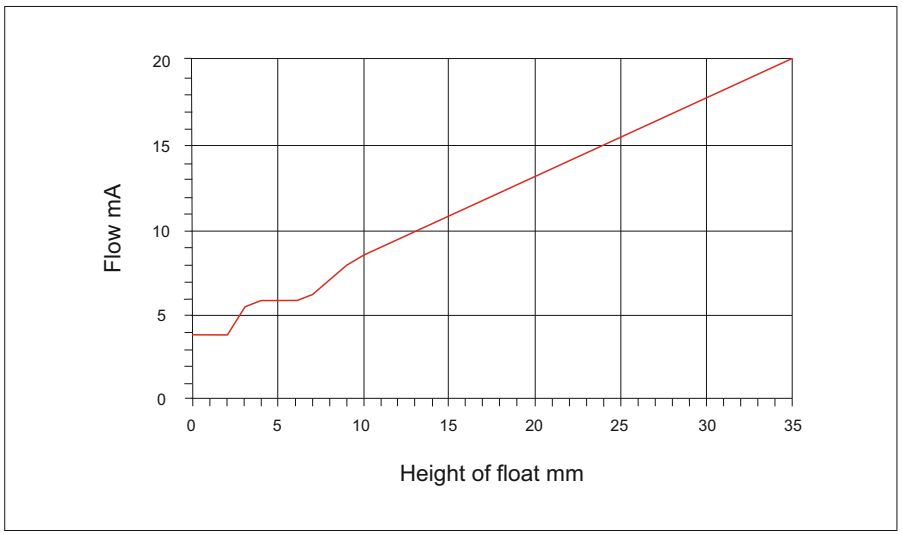


Special scales available upon request (e. g. measuring unit pt/min)

Technical data:

Operating pressure:	max. 16 bar
Temperature:	-10 ... +90 °C
Mounting position:	vertical ±5°
Materials:	Al and CuZn
Viewing tube:	Glass
Gasket material:	FPM

Diagram



Electrical monitoring with analog transmitter ("T")

General:

The float position can be monitored electrically.
The float is fitted with a magnet. The magnetic field of the solenoid excites the analog transmitter, which is built-in the control element, but apart from the oil flow.

Varying the flow rate in the KUI, the current in the analogue output changes as well according to the height position of the float (see diagram).

Electrical data:

Power supply:	max. 30 VDC
Power consumption:	<1 W
Type of protection:	DIN EN 60529 IP67
Temperature range:	-20 ... +70 °C
Electr. connection:	Plug M12x1, 5-pin
Material:	Aluminium, blue anodized
Weight:	0,015 kg

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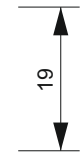
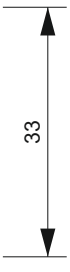
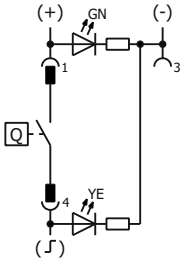
MX Medium switching band	OFF ON ON OFF	Float rising Float falling Float rising Float falling	
LX Long switching band	OFF ON ON OFF	Float rising Float falling Float rising Float falling	
UX Ultralong switching band	no switching off towards the top: ON OFF	 Float rising Float falling	

Electrical data:		without LED MX / LX / UX	with LED MBX / LBX / UBX
Switching surge:	max.	130 VUC	30 VDC
Switching current:	max.	0,5 A	
Switching capacity:	max.	10 W/VA	
Protection type:		DIN EN 60529 IP65	
Temperature range:		0 ... 90 °C	
Electr. connection:		Plug M12x1	
Material:		Polypropylene	
Weight:		0,050 kg	
Wiring diagram:			

Electrical monitoring for KUI-B01

General:

The float position can be monitored electrically.
The float is fitted with a magnet. A reed switch, which has been built into the control element, outside the oil flow, is activated by the magnet. The control element can be adjusted vertically to suit the flow.

The switching point has been indicated on the face of the control element. When the float is approaching the switching point either rising or falling the reed switch contact closes at the moment the ring indicator on the float is in line with the inner mark. The contact opens again as soon as the float has moved past the indicated faint mark. The hysteresis between switch-on and switch-off point is about 1,3 mm.

The switching status of the version with LED is indicated by an LED in the cable box.

Switching band:

The contact closes when the float with its ring indicator passes the inner mark on the control element either falling or rising.

The contact opens again when the float passes the outer mark either rising or falling. Referring to the length of the switching band there are three different versions of control elements available.

Control element fastening:

The base body is provided with two fastening threads. In delivery condition, the control element is mounted in the upper fastening thread. The lower fastening thread should only be used in case of special applications, e. g. when a permanent switch-on function in the lower float end position is required.

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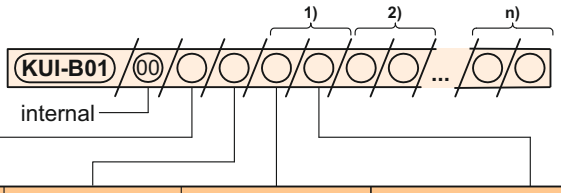
Order designation:



Throttle block	Display scale	Size	electrical monitoring
1-digit (1) 2-digit (2) 3-digit (3) 4-digit (4) 5-digit (5) without throttle block one volume flow meter only (spare part) (0) more digits by request	for operating viscosity 130 mm²/s (A) for operating viscosity 46 mm²/s (B) for operating viscosity 180 mm²/s (C) Scale with spacing in mm (M) without display scale (for special scales) (0)	Display range see diagrams: (01) (02) (03) (05) (10) (25) (40) (70) (100) (200) (300) Digit not including volume flow meter and throttle (L)	without LED indication — Switching band: medium (MX), long (LX), ultralong (UX) with LED: medium (MBX), long (LBX), ultralong (UBX) without (0) with analog transmitter (T)

Order example:

Volume flow indicator with throttle block 5-digit mit display scales for an operating viscosity of 130 mm²/s

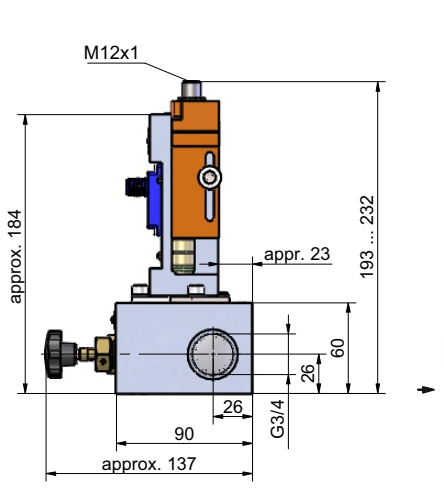
Digit 1 + 2	Size (10)
Digit 3 + 4	Size (25)
Digit 5	Size (100)

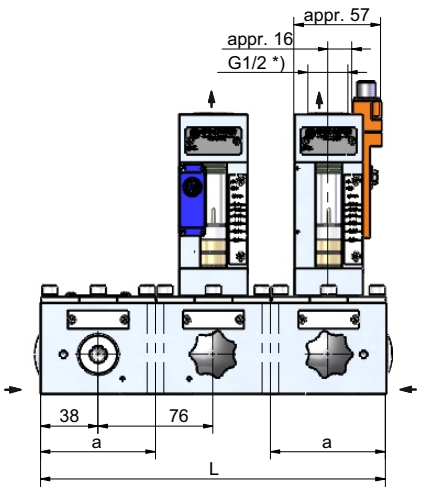
Electric monitoring:
Digit 1 ultralong
Digit 2 without monitoring
Digit 3 ultralong
Digit 4 ultralong
Digit 5 ultralong

Order designation:

KUI-B01 / 00 / 5 / A / 10 / UX / 10 / 0 / 25 / UX / 25 / UX / 100 / UX

[1] outer left digit
[2] second digit from the left etc.





*) Note: Insertion length 14 mm max.!

	a	b	L
1-digit	11	11	76
2-digit	11	11	152
3-digit	76	15	228
4-digit	76	15	304
5-digit	76	15	380

Cable socket M12 with screw terminals in the scope of delivery

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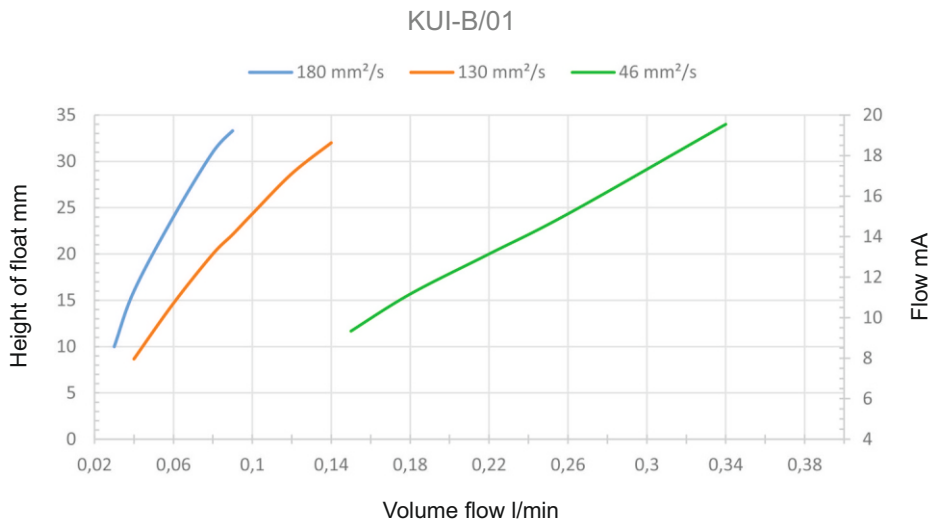
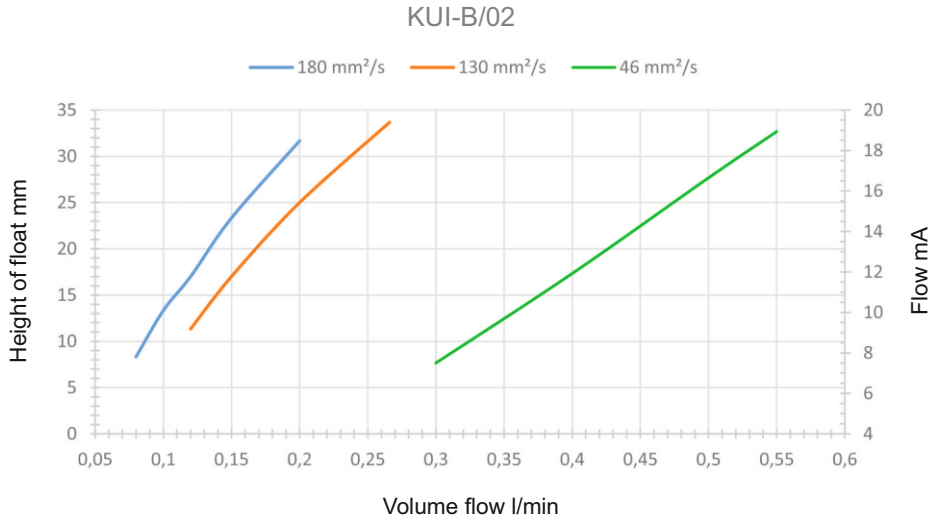
Diagrams to KUI-B01 **Indication dependent on the viscosity of the medium**

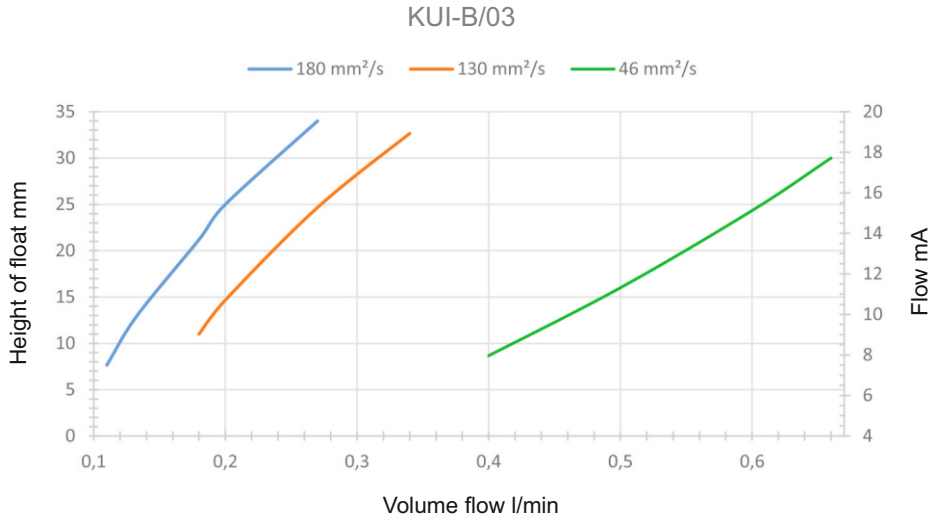
Size (01)



Size (02)



Size (03)



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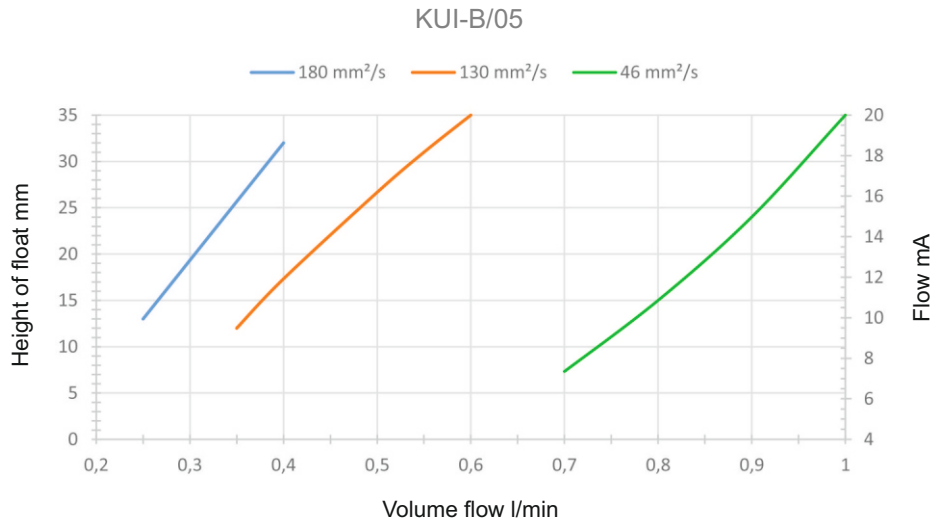
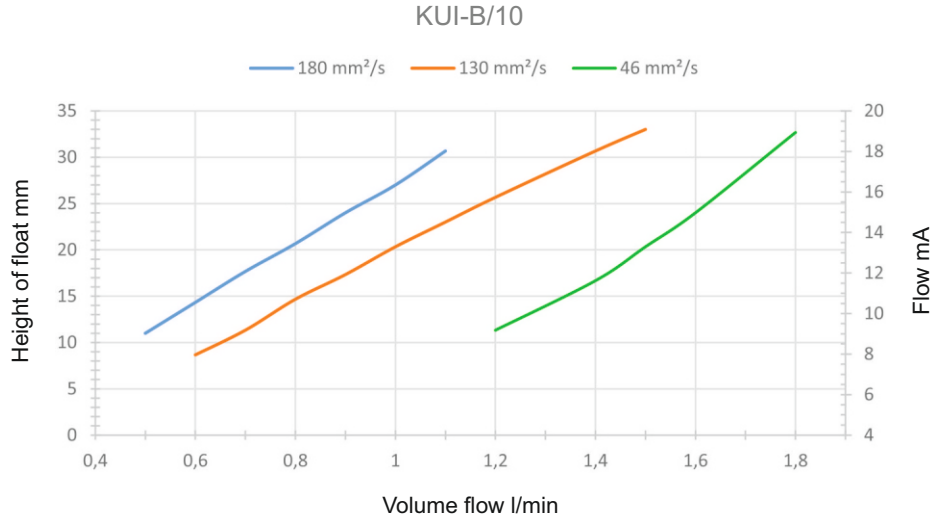
Diagrams to KUI-B01 **Indication dependent on the viscosity of the medium**

Size (05)



Size (10)



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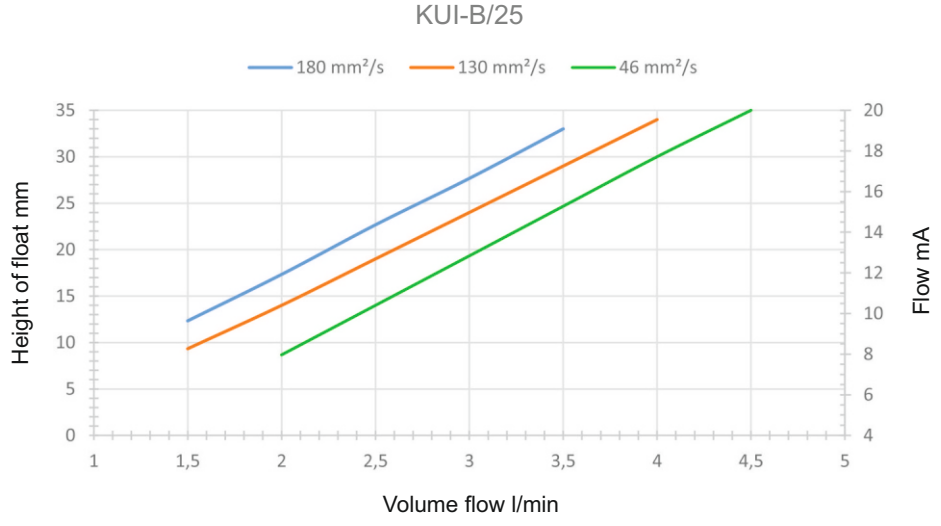

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Diagrams to KUI-B01 **Indication dependent on the viscosity of the medium**

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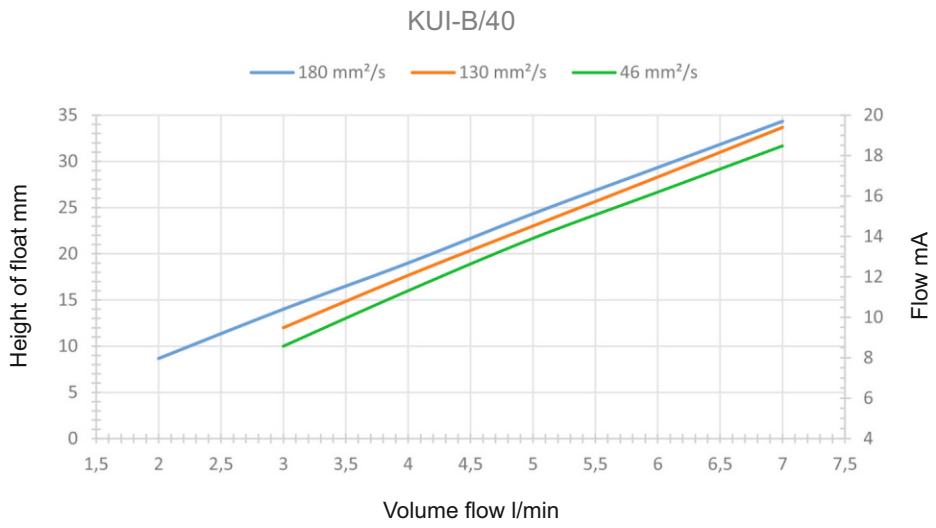
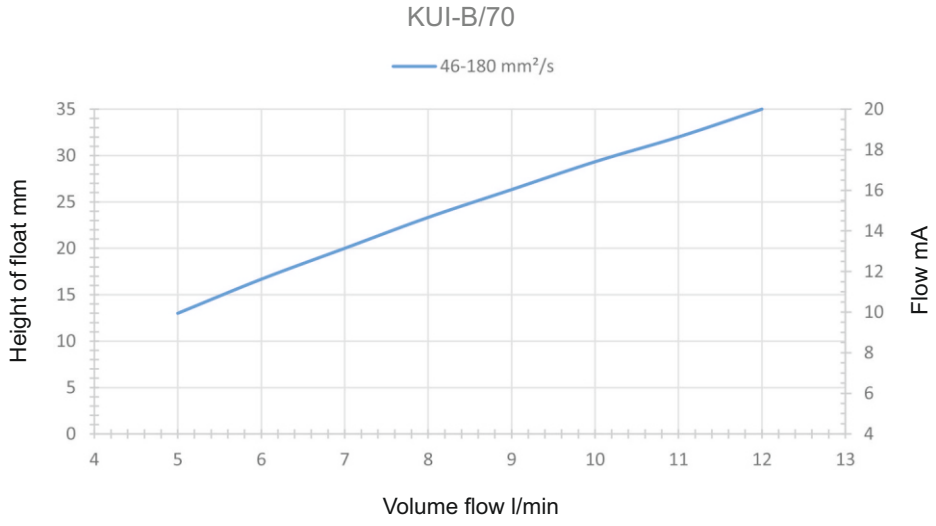
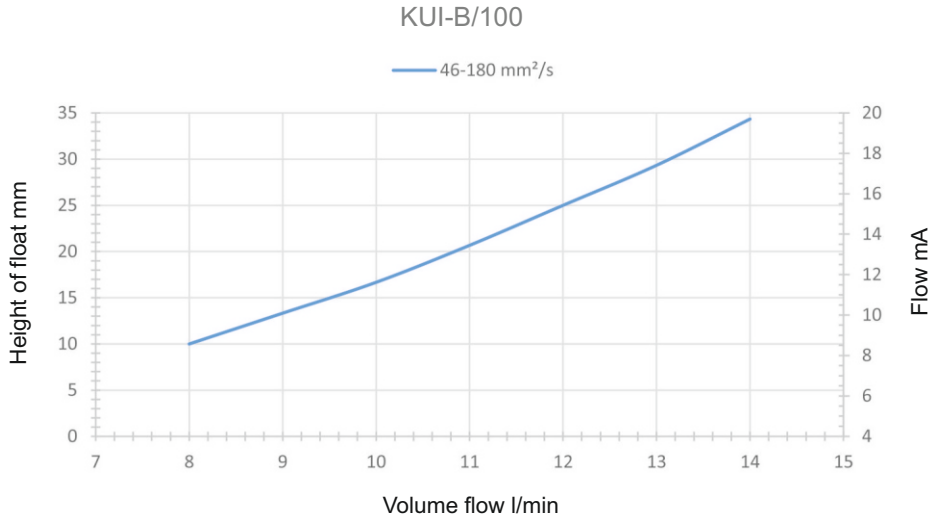
Size (40)



Size (70)



Size (100)



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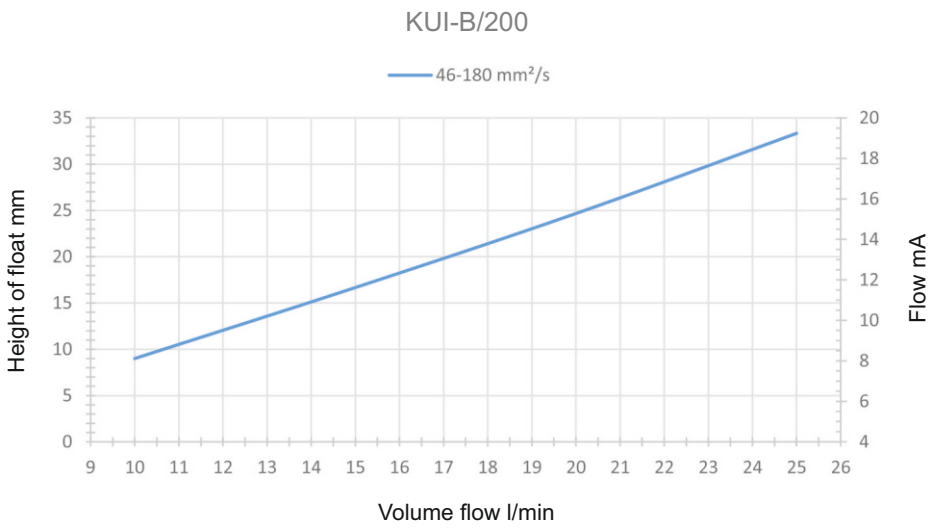
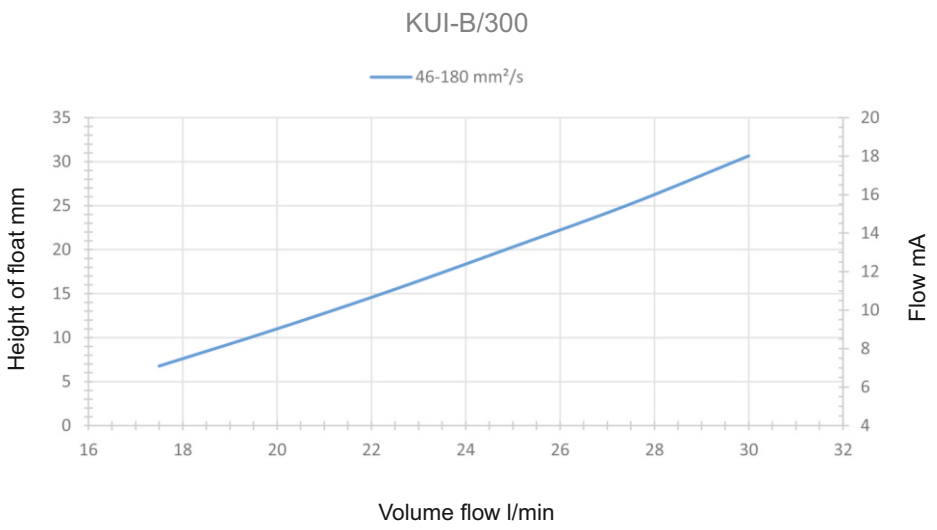
Diagrams to KUI-B01 **Indication dependent on the viscosity of the medium**

Size 200



Size 300



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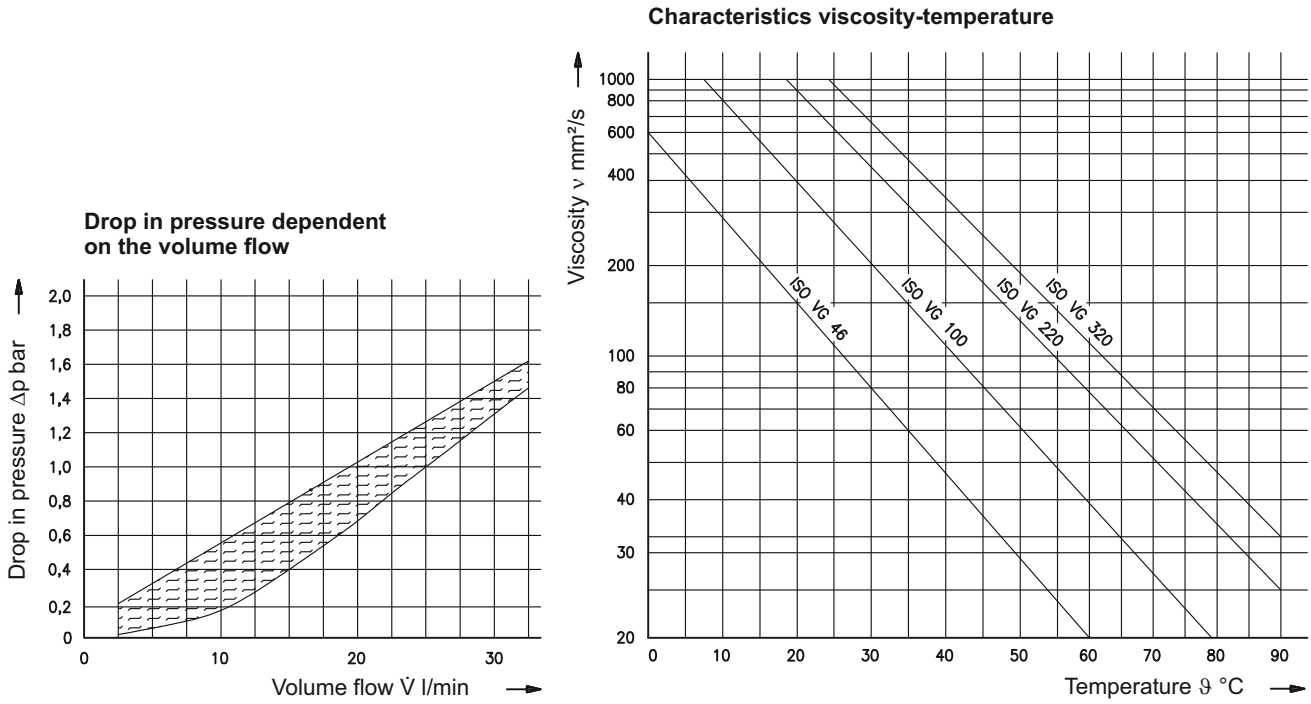

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Technical documents also valid for this product:

E9561 EN Spare parts KUI-B01

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