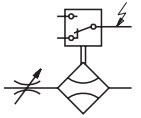




**Volume flow indicator  
KUI-F**

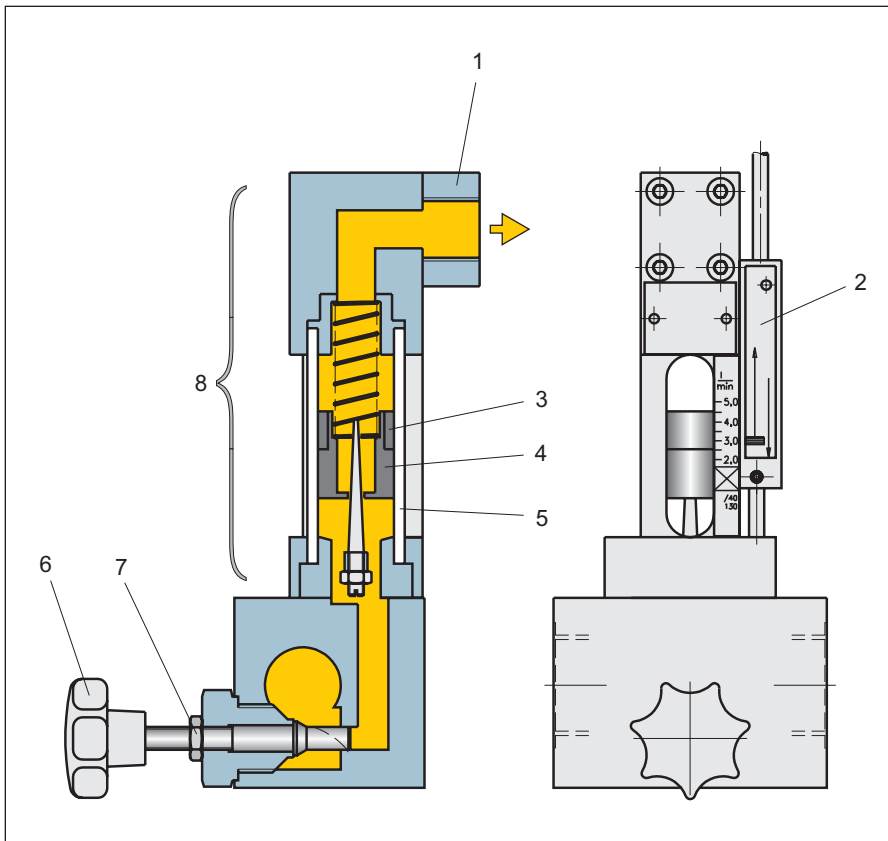


Volume flow - measuring device with throttle and stop valve in block-type construction

**Use:**

In oil lubrication systems

- In series mounting in narrowest space
- Visual and electrical volume flow monitoring
- Volume flow continuously adjustable
- Indication device can be exchanged without having to loosen the piping
- Control elements with function display (LED)



**Construction and function:**

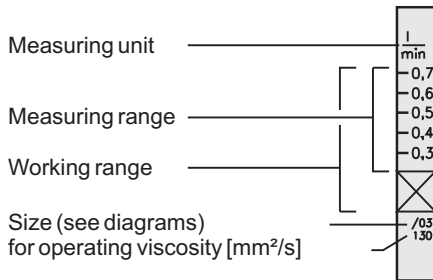
A float 4 with screen hole moves in a cylindrical viewing tube 5. When flow through from bottom to top, the float 4 adjusts itself to a certain height and visually shows the volume flow by means of a ring mark available on the scale. The control element 2 can monitor the float body's position electrically. In the block, every volume flow indicator a throttle valve 6 is allocated to by means of which volume flow can be set or stopped.

**Note to functional drawing:**

- 1 = Connection ledge
- 2 = Control element
- 3 = Magnet
- 4 = Float
- 5 = Viewing tube
- 6 = Throttle valve
- 7 = Fixing nut
- 8 = Indicator unit

**Indicator scale "A" "B" "C" "D"**

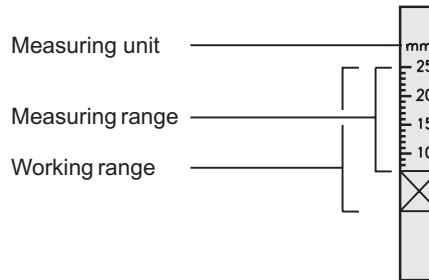
The indicator scales "A" to "D" are used to adapt the volume flow indicators to the oil's operating viscosity (for values see purchase-designation).



In the working range, the float with its ring mark is capable of moving.  
 The volume flow indicator should be chosen such that, in normal operation, the float with its ring groove is within measuring range (indication accuracy).  
 Special scales available on request (e.g. for measuring unit [pt/min.])

**Indicator scale "M"**

with mm-spacing for special applications


**Technical data:**

Operating pressure: at max. 16 bar  
 Temperature: -10 ... 90 °C  
 mind allowable temperature for electrical control element!  
 Mounting position: vertically ±5°  
 Materials: Al and CuZn  
 Viewing tube: Glass  
 Gasket material: FPM (Viton)  
 Measuring points: There are blocks with 1 to 6 points, and 10 points available. By means of a special linking element, several blocks can be combined. Distance between two adjacent outlets at the linking point should be twice the normal spacing (see dimensional drawing).

For more information see:

**Leaflet-no.: 0347**

In this leaflet, the indication ranges of the volume flow indicators are shown in diagrams depending on oil viscosity and size.

**Leaflet-no.: 0185**

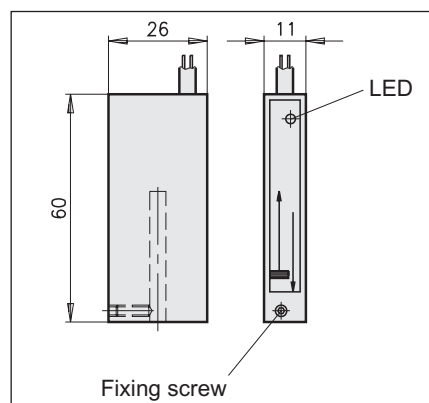
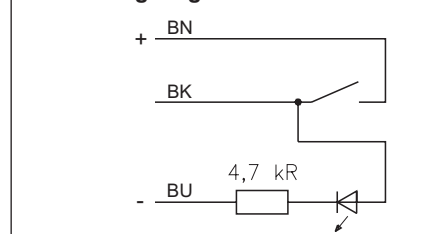
Spare parts list including illustration of all component parts.

**Electrical monitoring**
**General:**

The float's position can be monitored electrically. On the float, there is a magnet, the field of which causes reed contacts to switch. These contacts are situated in the control element outside the oil flow. The control element can be height-adjusted and, thus, adapted to volume flow.

The control element's front side is provided with a switching point mark. When the float comes near to the mark in upward direction, the contact will be made if the ring mark in the float is flush with the switching point mark at the control element. Contact will break again when the float leaves the arrow end downward.

A light emitting diode in the control element shows the switching condition. When contact is made, the LED lights.


**Connecting diagram:**

**Note**

The control element must be set such that the float's way from its lower limit position up to the switch-on point is 5 mm at minimum.

**Electrical data:**

Switching voltage at max.: 30 VDC  
 Switching current at max.: 0,5A  
 Switching power at max.: 10 W  
 System of protection: IP 65  
 Temperature range: 0 ... +70 °C  
 Electric connector: Cable 3x0,34; 3m long  
 Material: Polyamid 6 fibre glass reinforced  
 Weight: 0,1 kg

- Subject to modifications -



Throttle block Number of places	Indicator scale	Size *)	electrical monitoring
1 ÷ 16 places (1) ÷ (16)	for operating viscosity 130 mm <sup>2</sup> /s (A) 46 mm <sup>2</sup> /s (B) 180 mm <sup>2</sup> /s (C) 90 mm <sup>2</sup> /s (D)	(00) (15) (01) (40) (03) (50) (05)	with (R)
without throttle block one volume flow indicator only (spare part) (0)	Scale with mm-spacing (M) without (e.g. for special scale) (O)	Place without volume flow indicator and throttle (L)	without (O)

- Subject to modifications -

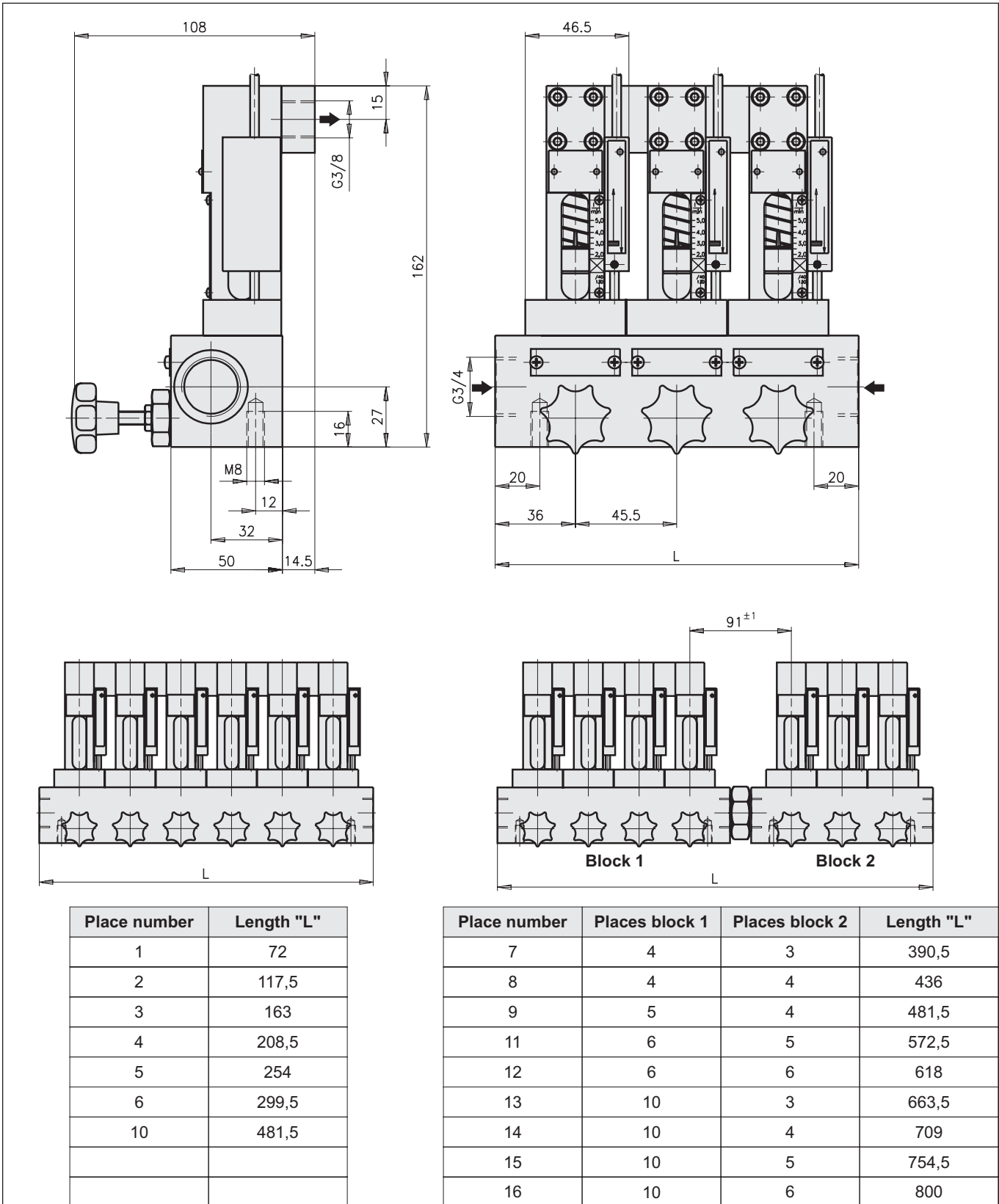
**Purchase-example:**

Throttle block 5-place, indicator scale for 130 mm<sup>2</sup>/s operating viscosity  
 Places 1 + 2                      Size 01  
 Places 3 + 4                      Size 15  
 Place 5                              Size 50  
 all with electric monitoring included

**Purchase-designation:**

**KUI-F / 5 / A / 01 / R / 01 / R / 15 / R / 15 / R / 50 / R**

- <sup>1)</sup> = outer left place
- <sup>2)</sup> = second place from left, etc.
- <sup>\*)</sup> = Size approximately corresponds to the 10-fold volume flow at a float height of approx. 10 mm and an operating viscosity of 130 mm<sup>2</sup>/s (see diagrams on leaflet-no. 0347).



- Subject to modifications -