



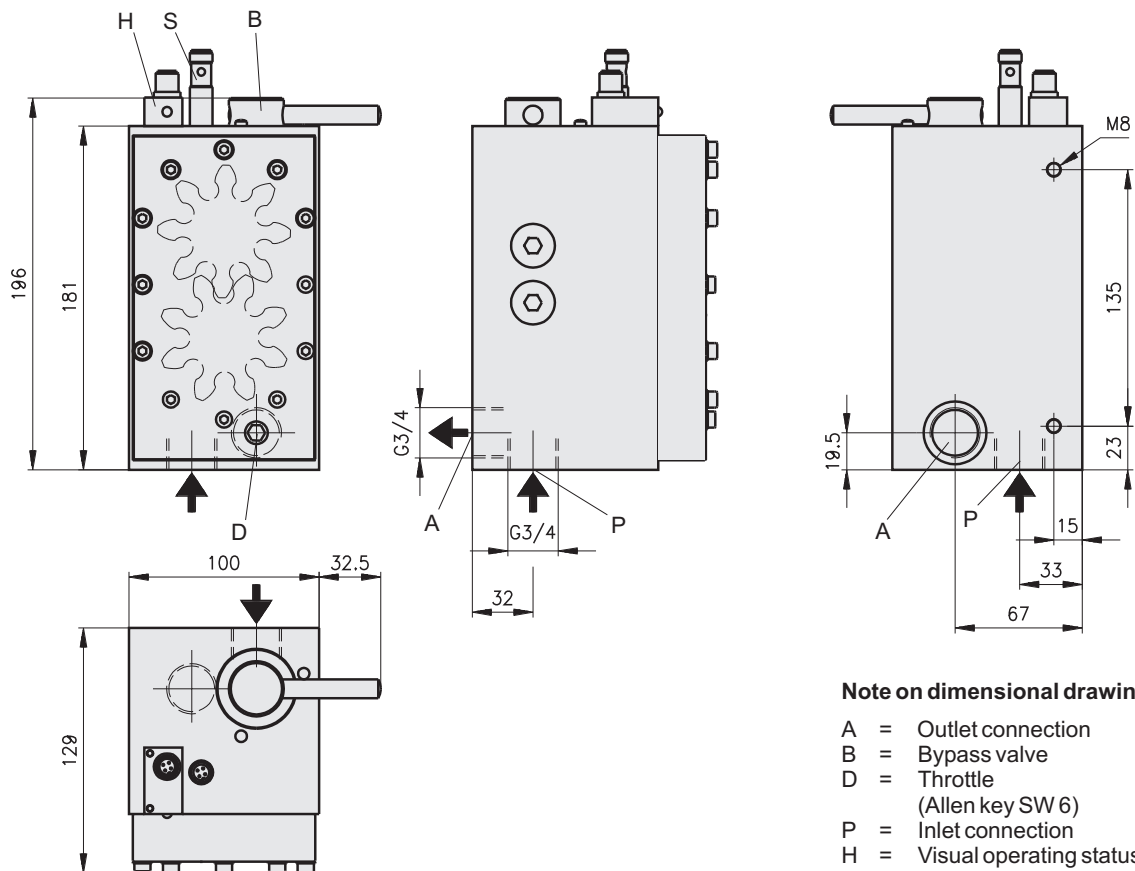
## Volume flow meter with throttle- and bypass valve KUZ-L

### Use:

In oil lubrication systems

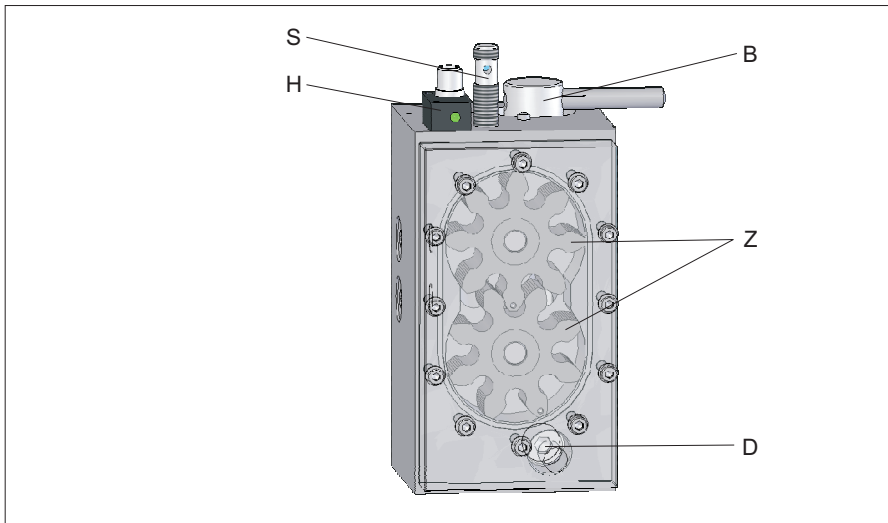
- Viscosity-independent volume flow monitoring
- High measuring accuracy
- Big monitoring range
- Continuously adjustable volume flow
- Gearwheels can be cleaned or exchanged during operation
- Low throughput resistance
- Magnetic field sensor with function display (LED)
- Visual operating status display

- Subject to modifications -



### Note on dimensional drawing:

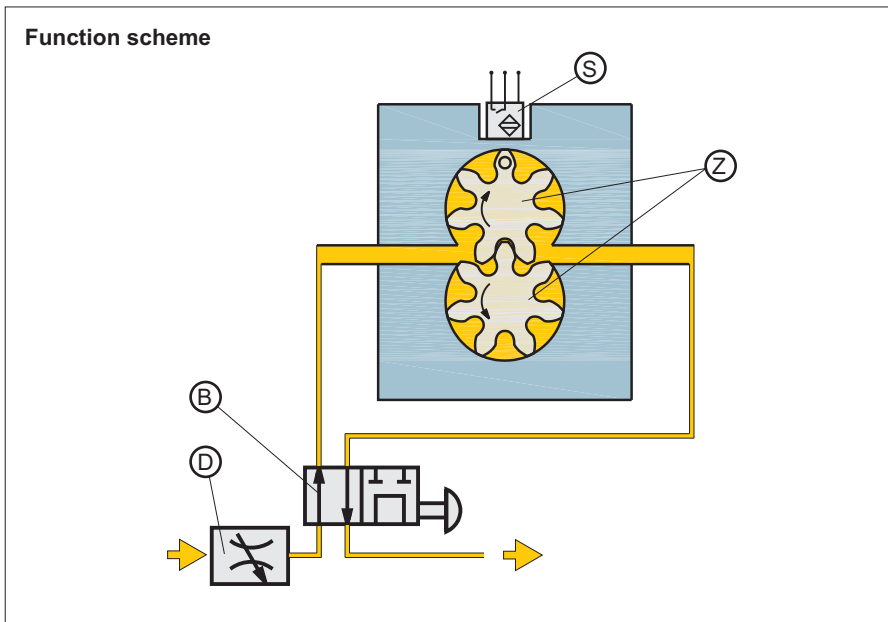
- A = Outlet connection
- B = Bypass valve
- D = Throttle  
(Allen key SW 6)
- P = Inlet connection
- H = Visual operating status display
- S = Magnetic field sensor



**Construction:**

The volume flow meter consists of the following components:

- Base body
- Z = Gearwheel pair
- D = Throttle
- B = Bypass valve
- S = Magnetic field sensor
- H = visual operating status display



**Volume flow measurement:**

The fluid flowing through causes two gearwheels "Z" gearing into each other to rotate. Outside the pressure range, there is a sensor "S" scanning the movement of the gearwheels "Z". The volume flow is determined by summing the measuring pulses up.

**Volume flow adjustment:**

The throttle valves "D" can be used to adjust the volume flow.

**Bypass:**

For replacing or cleaning the gearwheels "Z", the set volume flow can be diverted directly to the outlet connection through bypass valve "B".

**Technical data:**

- Flow volume: approx. 5 ... 50 l/min
- Volume per electric pulse: 75,0 cm<sup>3</sup>
- Lubricant: Mineral oil  
(others media available upon request)  
The intended lubricant must be suitable for use with centralized lubrication equipment.
- Operating viscosity: 50 ... 800 mm<sup>2</sup>/s
- Operating pressure: at max. 25 bar
- Temperature range: 0 ... 60 °C
- Mounting position: as needed
- Materials: AI / PMMA  
FPM (Viton)

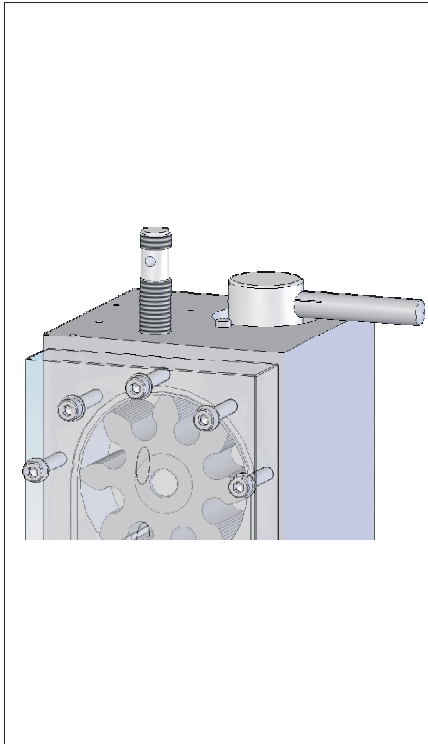
**Important note:**

The values stated above are maximum values and must not be attained concurrently.

- Subject to modifications -



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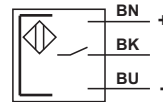
### Magnetic field sensor with LED:

Casing material: Brass nickel-coated  
 Operating voltage: 10 ... 30 VDC  
 Residual ripple: ≤ 10 %  
 Constant current: ≤ 300 mA  
 Own current consumption: ≤ 10 mA  
 Voltage drop: ≤ 1,5 V  
 Protection type: IP 67

### Version "1" cable connection:

Connection type: Line, PVC/PUR, 3m  
 3x0,25 mm<sup>2</sup>

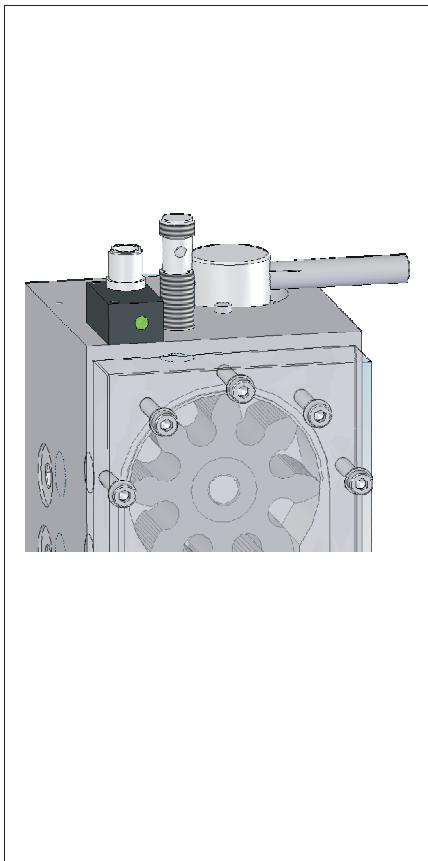
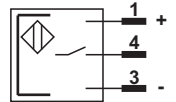
Connection diagram:



### Version "2" plug-type connection:

Connection type: M12x1, 4-pin  
 (for proper cable jack see accessories)

Connection diagram:



### Visual operating status display:

The visual operating status display is actuated by an external evaluation unit. This enables the operating condition to be displayed visually.

Operating voltage: 24...30 VDC  
 Power consumption per colour: 16 mA  
 Protection type: IP65  
 Casing material: Polyamide

Three different signal colours can be displayed:  
 green yellow red

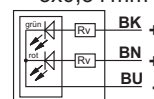
Example: green = Target status  
 yellow = Pre-warning  
 red = Fault

Evaluation equipment, please inquire if necessary.

### Version "1" cable connection:

Connection type: Line, PVC/PUR, 3m  
 3x0,34 mm<sup>2</sup>

Connection diagram:

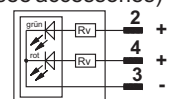


LED red = BN + BU  
 LED green = BK + BU  
 LED yellow = BK + BN + BU

### Version "2" plug-type connection:

Connection type: M12x1, 4-pin  
 (for proper cable jack see accessories)

Connection diagram:



LED red = Pin 4 + 3  
 LED green = Pin 2 + 3  
 LED yellow = Pin 2 + 4 + 3



**Purchase-designation:**

Volume flow meter



Number of measuring points	Bypass	Magnetic field sensor	Visual operating status display <sup>1)</sup>	Volume flow
①	with ②	with cable ① with plug ②	with cable ① with plug ② without ③	approx. 5...50 l/min ④

**Purchase-example:**

For a volume flow meter KUZ-L with 1 measuring point, bypass, magnetic field sensors and visual operating status display with plugs each, volume flow "G".

**Bestell-Bezeichnung:**

**KUZ-L/1/B/2/2/G**

<sup>1)</sup> Evaluation unit required

- Subject to modifications -

**Spare parts:**

Designation	Purchase-no.
Plate translucent with mounting material	752.517-66
Gearwheel pair	752.517-64
Throttle screw "G"	752.517-67
Gasket kit	752.517-68

**Accessories:**

Designation	Purchase-no.	Designation	Purchase-no.
Magnetic field sensor "1" with cable	913.900-26	Unit plug with cable 4-pin, 5m	913.404-46
"2" with plug	913.900-27		
Visual operating status display "1" with cable	477.582-60		
"2" with plug	477.563-60		