



Volume flow meter with throttle- and bypass valve KUZ-C

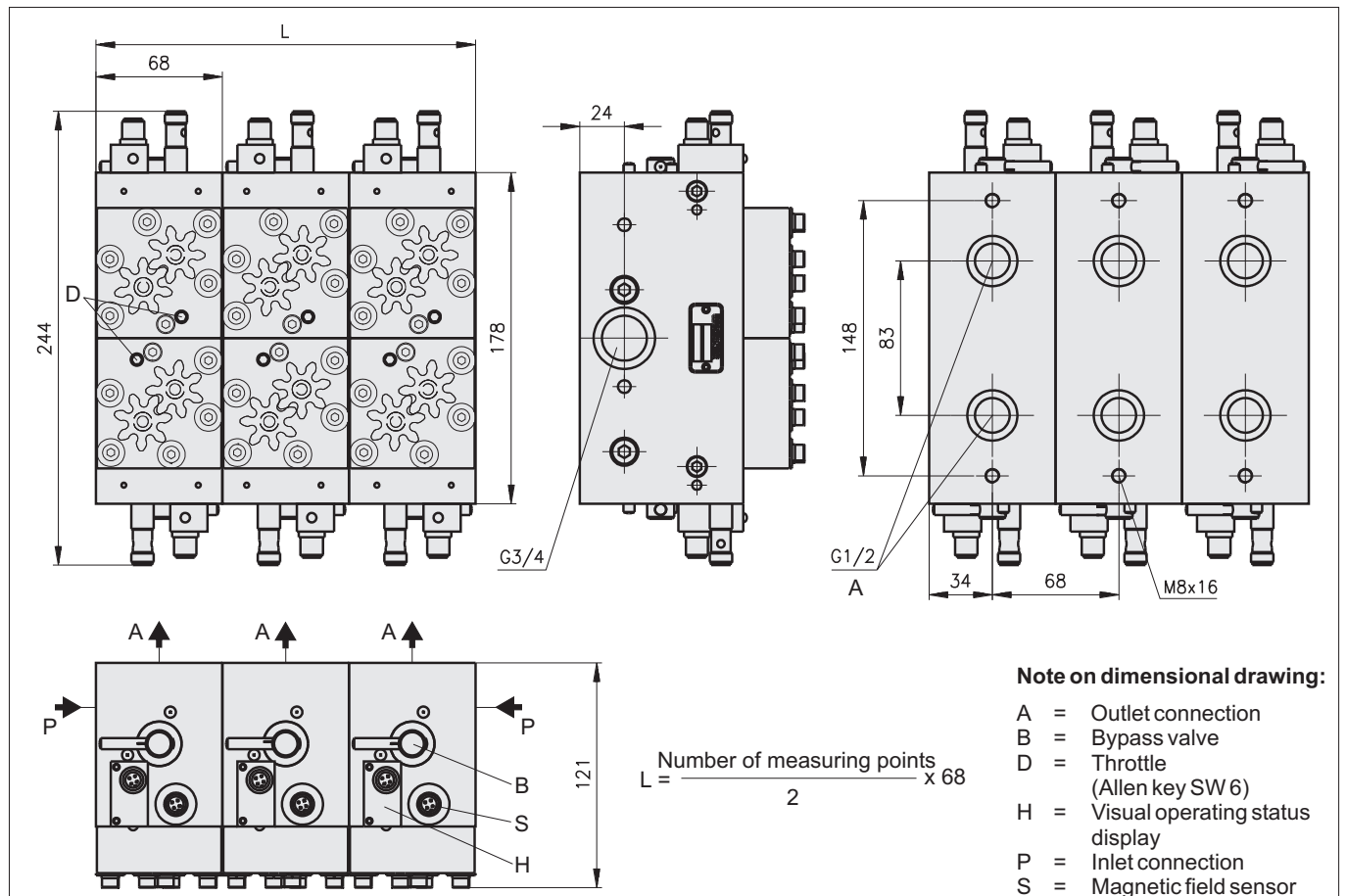
Use:

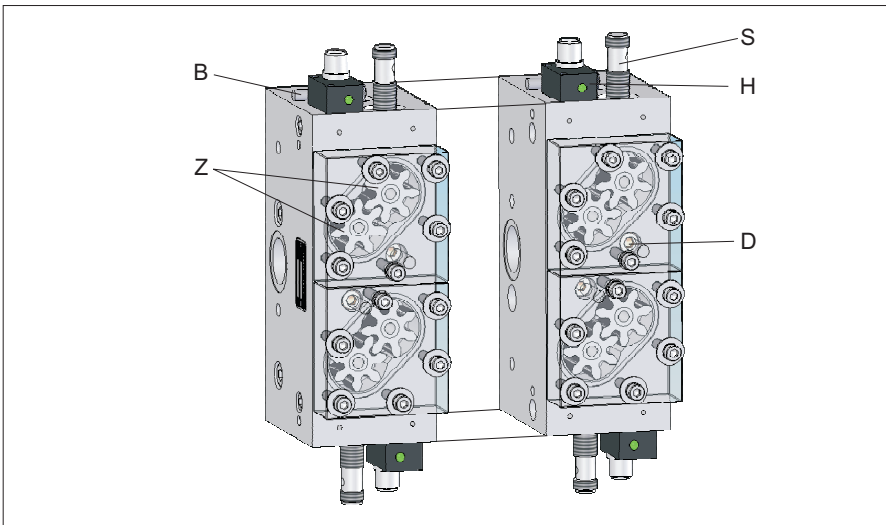
In oil lubrication systems

- Series mounting in narrowest space
- 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 (LED)



- Subject to modifications -




Construction:

The volume flow meter consists of a base body with two integrated measuring units.

Either measuring unit consists of the following components:

Z = Gearwheel pair

D = Throttle

B = Bypass valve

S = Magnetic field sensor

H = visual operating status display (optional)

The number of measuring units can be extended by flanging on additional base bodies directly.

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" built into the base body can be used to adjust the various volume flows.

Bypass:

For replacing or cleaning the gearwheels "Z", the set volume flow can be diverted directly to the outlet connection through bypass valve "B". In such case, the measuring unit will not be flown through.

Technical data:

Flow volume: approx. 0,05 ... 7 l/min.

Volume per electric pulse: 11,2 cm³

Lubricant: Mineral oil (others media available upon request)

The intended lubricant must be suitable for use with centralized lubrication equipment.

Operating viscosity: 50 ... 800 mm²/s

Operating pressure: at max. 25 bar

Pressure loss: see diagram

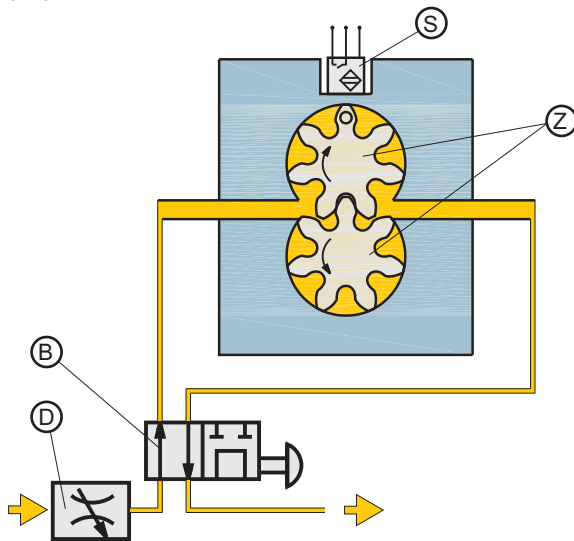
Temperature range: 0 ... 60 °C (higher temperatures upon request)

Mounting position: as needed

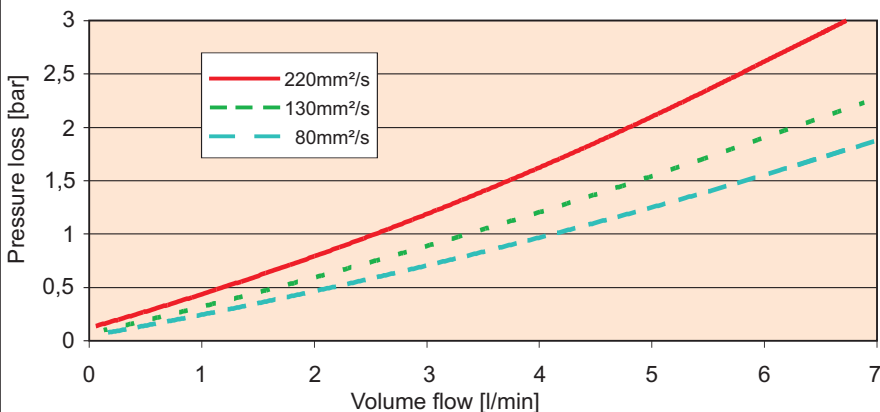
Materials: AI / PMMA FPM (Viton)

Important note:

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

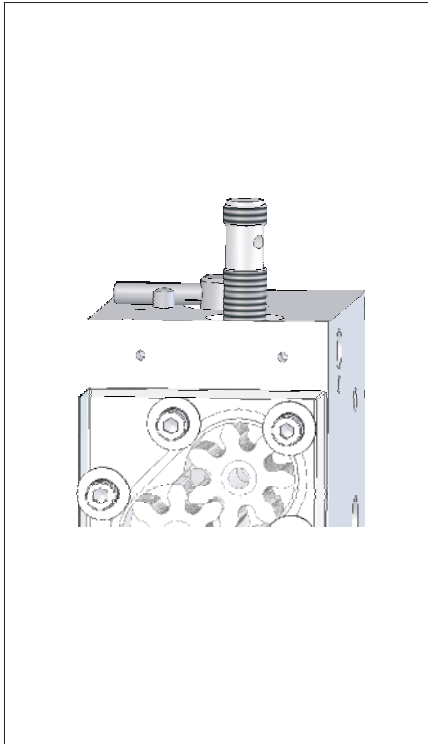
Function scheme


Pressure loss in dependence on volume flow:





- Subject to modifications -



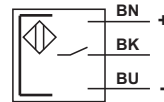
Magnetic field sensor with LED:

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 mm²

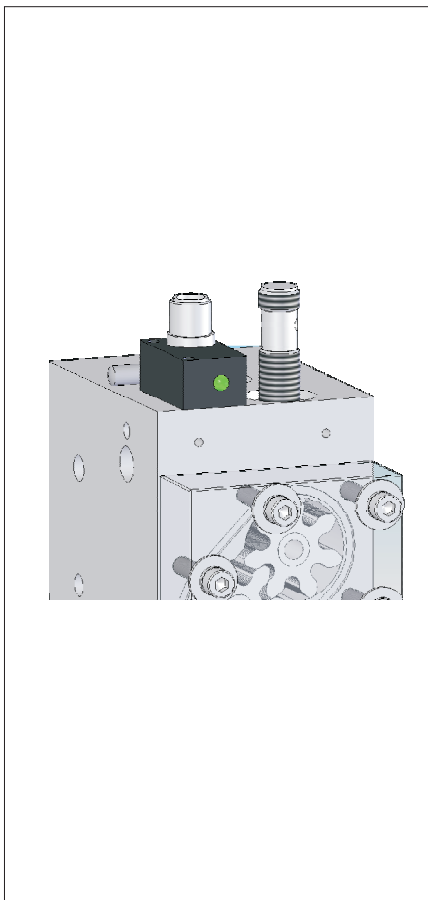
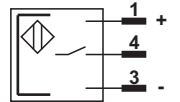
Connection diagram:



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: IP 65
 Casing material: Polyamide

Three different signal colours can be displayed:

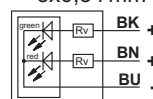
Example: green = Target status
 yellow = Pre-warning
 red = Fault

Evaluation equipment, please inquire if necessary.

Version "1" cable connection:

Connection type: Line, PVC/PUR, 3m
 3x0,34 mm²

Connection diagram:

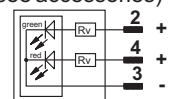


LED red = BN + BU
 LED green = BK + BU
 LED yellow = BK + BN + BU

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:

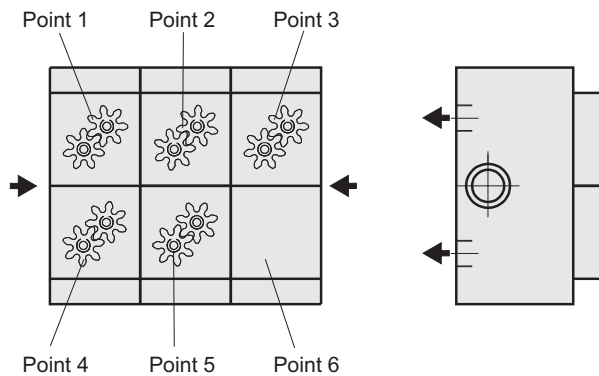
Volume flow meter



Number of measuring points	Bypass	Magnetic field sensor	Visual operating status display ¹⁾	Point (Version)
2 ... 22 raise by two measuring points each	with (B)	with cable (1) with plug (2)	with cable (1) with plug (2) without (0)	approx. 0,05...7 l/min (U) without measuring point (closed) (0)

Purchase-example:

For a volume flow meter KUZ-C with 5 measuring points, bypass, magnetic field sensors and visual operating status display with plugs each and with no measuring device being connected to point 6.
 Volume flow "U" at point 1
 Volume flow "U" at point 2
 Volume flow "U" at point 3
 Volume flow "U" at point 4
 Volume flow "U" at point 5
 Volume flow "0" at point 6

Purchase-designation:
KUZ-C/6/B/2/2/U/U/U/U/U/0
¹⁾ Evaluation unit required


- Subject to modifications -

Spare parts:

Designation	Purchase-no.
Plate translucent with mounting material	752.483-76
Gearwheel pair	752.483-73
Throttle screw "F"	752.483-71
Throttle screw "G"	752.483-72
Connection kit	752.483-75
Gasket kit	752.483-77

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		