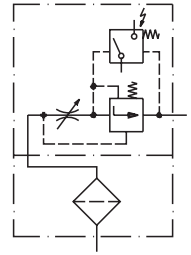


Figure 1

Volume flow regulator with connecting plate
VUC-B



- Volume flow regulator with pressure scales
- Mounting on connecting plates
- with filter mount, if needed

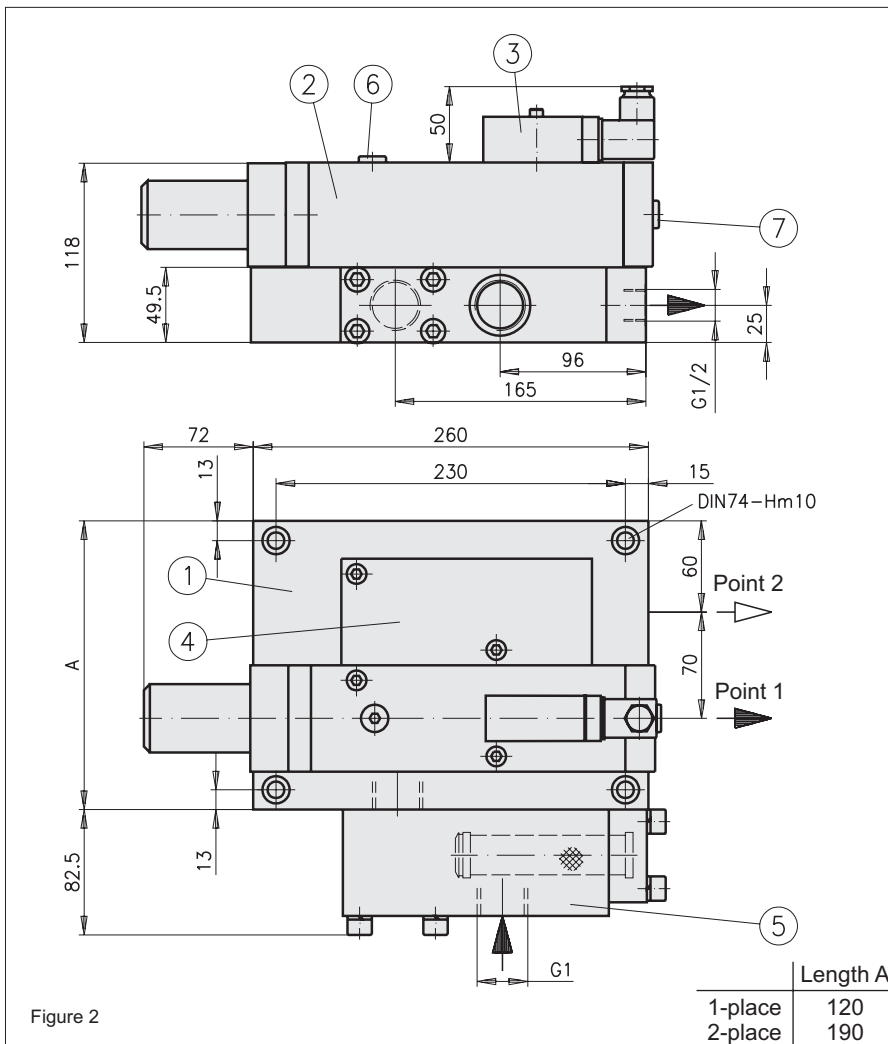


Figure 2

Technical data:

- Operating pressure at max.: 100 bar
- Differential pressure between inlet and outlet at min.: 6 bar
- Adjustable volume flow: 0,5 ... 12 l/min (Viscosity dependent see diagram figure 7)
- Viscosity density ratio: 20 ... 1000 mm²/s
- Installation position: as needed
- Casing material: Aluminium
- Functional components: hard-coated Aluminium
- Connecting plate: Aluminium
- Gasket material: FPM (Viton)
- Filter insert mesh width: 300 µm

Notes to dimensional drawing:

- Item
- 1 = Connecting plate
 - 2 = Volume flow regulator
 - 3 = Control element
 - 4 = Dummy element
 - 5 = Filter mount
 - 6 = G1/4 connection for checking the input pressure
 - 7 = G1/4 connection for checking the output pressure

- Subject to modifications -

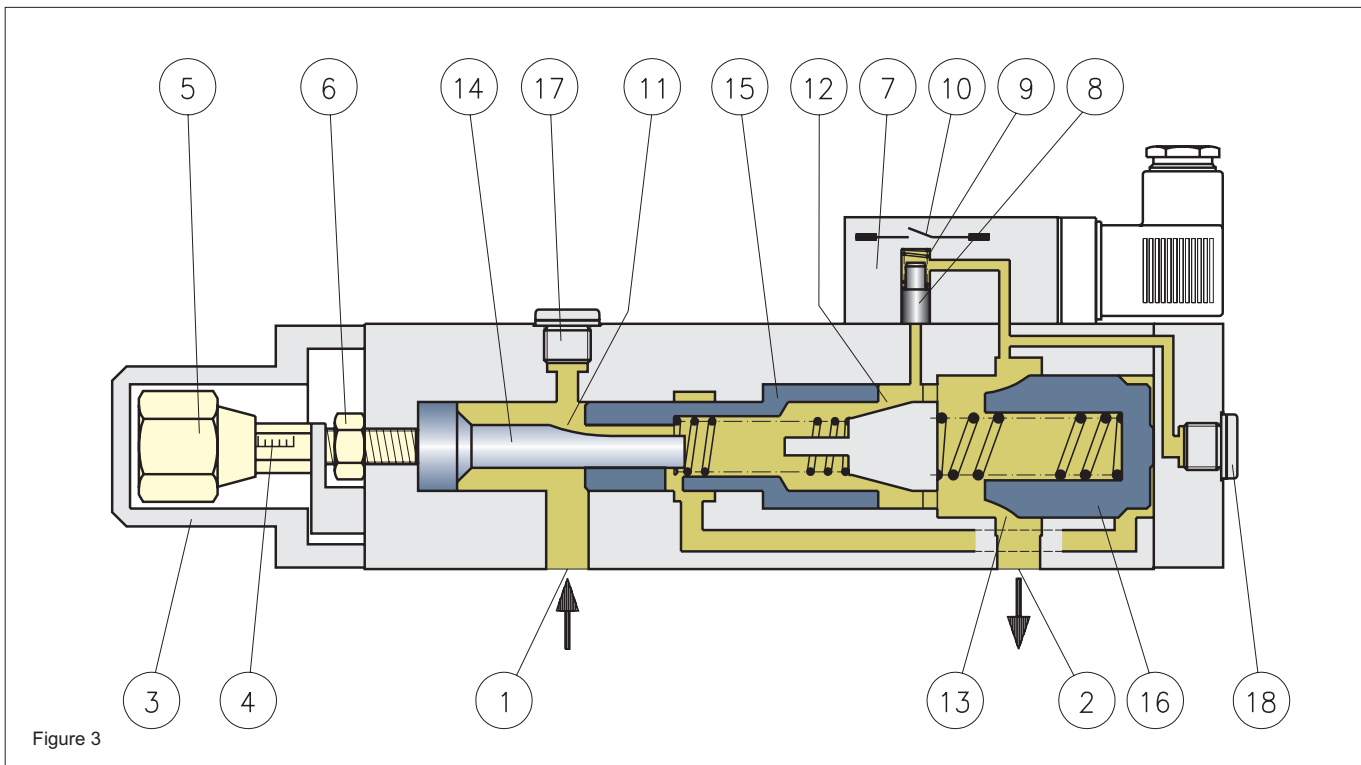


Figure 3

- Subject to modifications -

Mode of operation:

Constant flow stream presupposes a constant pressure inclination at the measuring throttle. To this effect, the proportioning block is fitted with three throttle pistons that are switched in series, where the throttle pistons I (14) and II (15) are used as measuring throttles I (11) and II (12), whilst throttle piston III (16) serves as pressure scales.

Throttles I (11) and II (12) are used to determine the volume flow. By turning the adjustment screw (5) to the right, the throttle pistons I (14) and II (15) are shifted to the right, concurrently reducing the flow cross sections of throttles I (11) and II (12) and diminishing the volume flow at constant pressure difference. When turning the adjustment screw to the left, volume flow will increase.

The flow cross section and resistance at throttle III (13) are, due to the shifting of throttle piston III (16) against spring force, changed automatically, thus ensuring a constant pressure difference at throttles I (11) and II (12). As a result, volume flow remains constant in case of an unchanged setting, i.e. irrespective of the pressure difference between inlet (1) and outlet (2).

Differential pressure between inlet and outlet is 6 bar.

When the unit is fitted with the control element (7), the pressure inclination at throttle III (13) and thus the volume flow are monitored. Should the pre-set volume flow be fallen short of, the spring (9) displaces the actuation piston (8) and causes the Reed contact (10) to open.

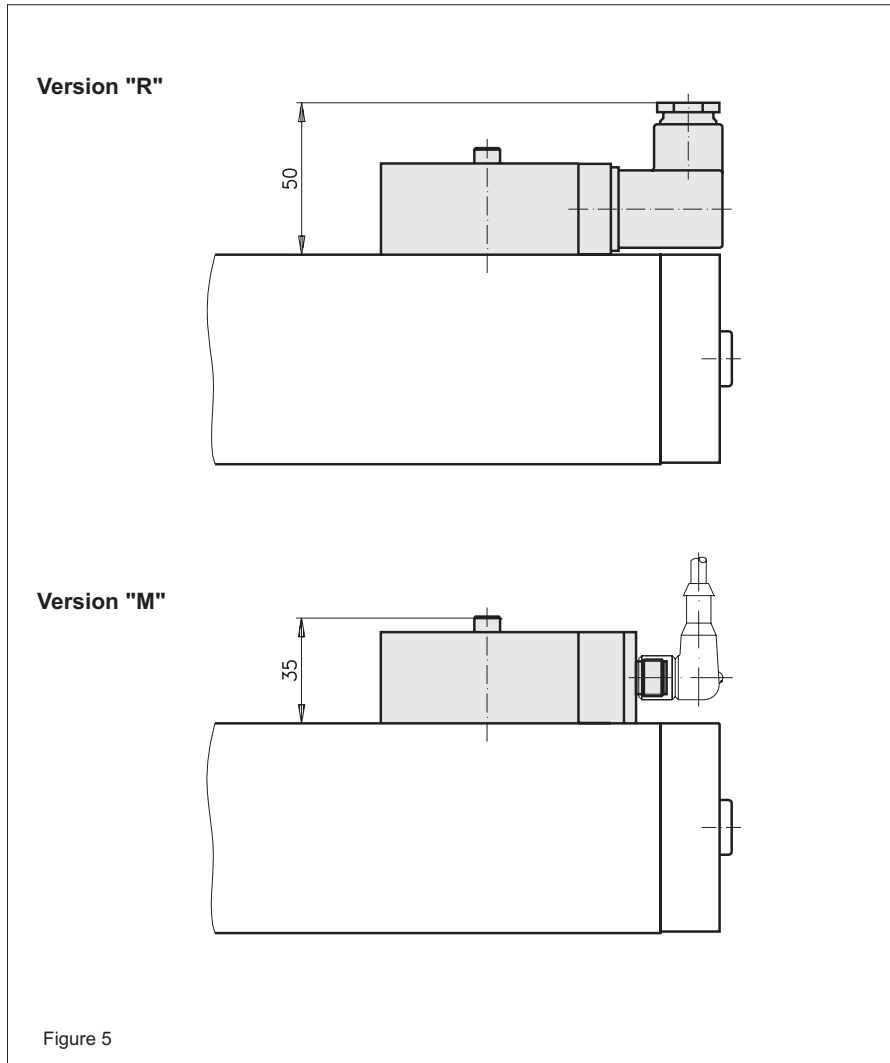
By virtue of the throttle pistons' arrangement, an extensive self-cleaning of the throttles is ensured. Hence, even smallest volume flows (0,5 l/min at min.) can be set.

Items

- 1 - Inlet
- 2 - Outlet
- 3 - Protective cap
- 4 - Scale
- 5 - Volume flow adjustment screw
- 6 - Locknut
- 7 - Control element
- 8 - Switch actuating piston
- 9 - Spring
- 10 - Reed contact
- 11 - Throttle I
- 12 - Throttle II
- 13 - Throttle III
- 14 - Throttle piston I
- 15 - Throttle piston II
- 16 - Throttle piston III
- 17 - Locking screw G1/4
(Connection of a manometer for checking the inlet pressure possible)
- 18 - Locking screw G1/4
(Connection of a manometer for checking the outlet pressure possible)



- Subject to modifications -

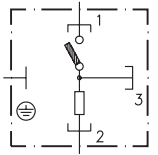


Functional test:

Temperature range:	-5 ... +90 °C
Switching voltage at max.:	36 V \approx
Switching current at max.:	25 mA
Switching power at max.:	0,9 W
Plug-type connection:	DIN 43650
Protection system:	IP 65

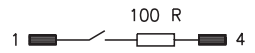
Version "R" with plug-type connection DIN 43650:

Connection diagram:



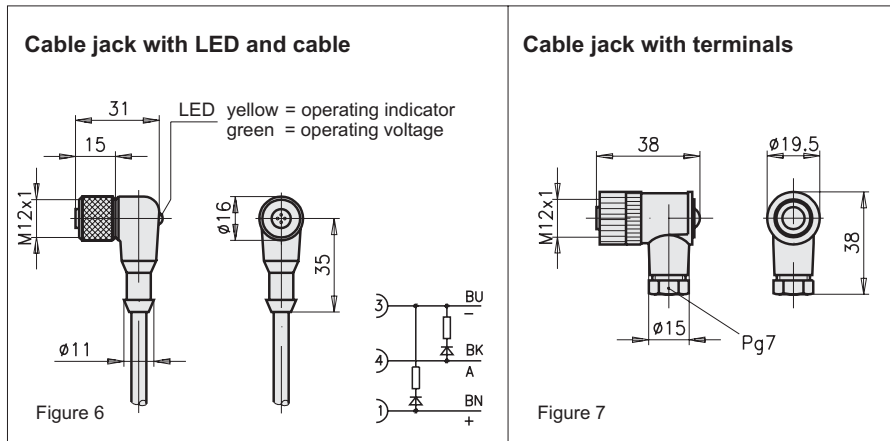
Version "M" with 4-pin unit plug (M12): (for matching cable jack see figures 6 and 7)

Connection diagram:



Auxiliaries:

Cable jack for functional test "M" (figure 5)
(state purchase-no., please)



Cable jack with LED and cable:

Purchase-no.:	913.404-19
Operating voltage:	10 ... 30 VDC
Cable	
Cross section:	3x0,34 mm ²
Length:	5 m
Protection system:	IP68

Cable jack with terminals: (without LED)

Purchase-no.:	913.404-24
Connection type:	Screws
Conductor size:	at max. 0,75 mm ²
Cable diameter:	4 ... 6 mm
Protection system:	IP67



Volume flow depending on viscosity and throttle position:

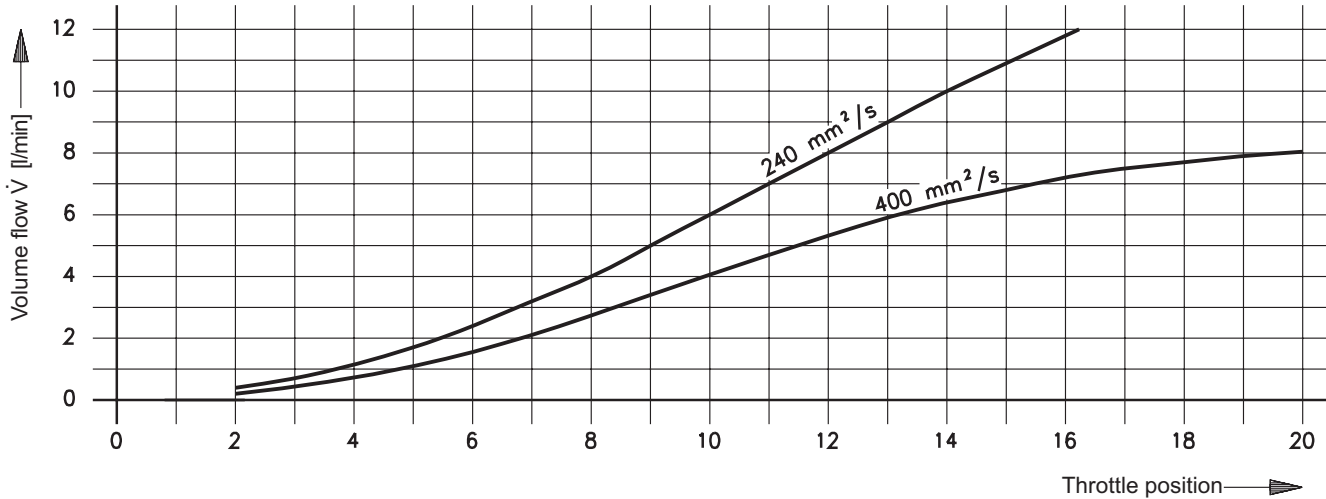


Figure 7

Purchase-designation:

Volume flow regulator



Connecting plate	Filter mount	Functional test and dummy element
1-place ①	with ⑤	Control element with plug-type connection DIN 43650 ④
2-place ②	without ⑥	Control element with unit plug 4-pin ③
		without control element ⑦
		without volume flow regulator (dummy element) ⑧

Connecting plate



Volume flow regulator



Purchase-example:

Connecting plate 2-place with filter mount and 2 volume flow regulators
Place 1: with control element R
Place 2: without control element

Purchase-designation:

VUC-B/2/F/R/0

Spare parts:

Designation	Purchase-no.
Dummy element	357.375-65
Functional test "R"	357.320-65
Functional test "M"	357.376-65
Filter mount	357.291-65
Filter element	357.293-65
Set of seals for filter mount	357.298-65
Set of seals for DUC-B	357.314-65

- Subject to modifications -