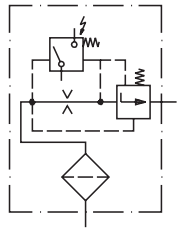
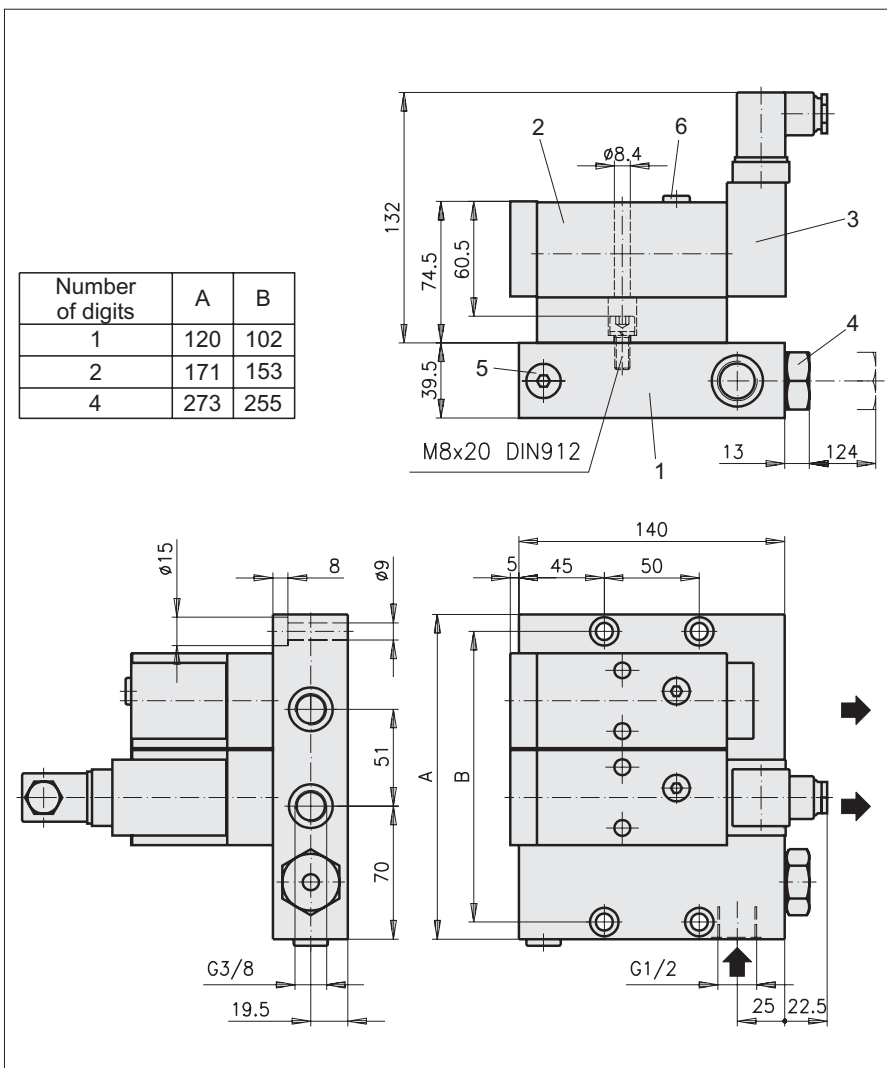


Volume flow limiter with connection board
VUK-A



- Volume flow limiter with pressure balance
- Mounting on connection boards
- Connection board with filter insert
- 0,1 ... 8,0 l/min.

- Subject to modifications -

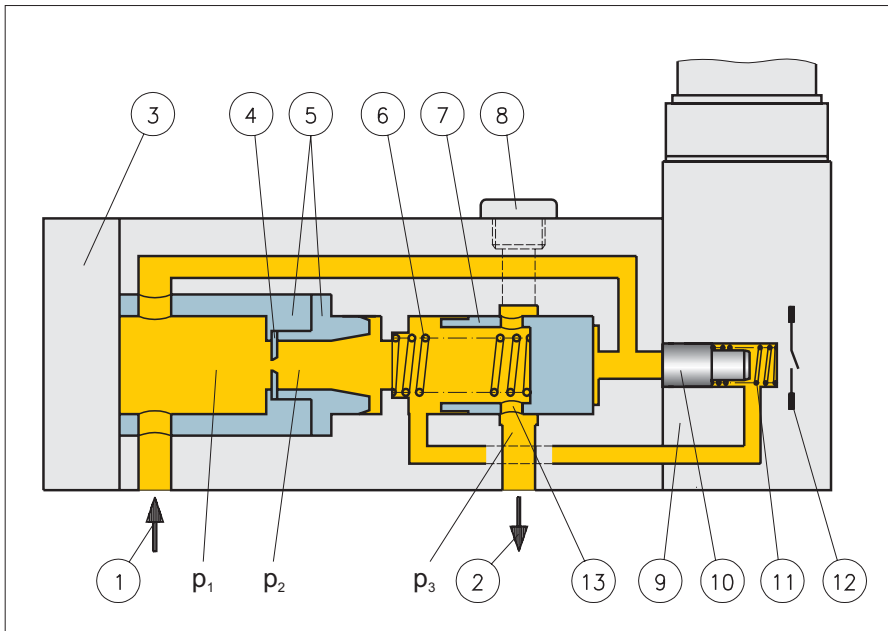


Technical data:

max. operating pressure:	100 bar
min. differential pressure between inlet and outlet:	5 bar
Viscosity density ratio:	20 ... 1000 mm ² /s
Installation position:	as needed
Casing material:	Aluminium
Functional unit:	hard coated Aluminium
Connection board:	Aluminium
Sealing material:	FPM (Viton)
Filter insert mesh width:	300 µm

Note pertaining to dimensional drawing:

- Pos.
- 1 = Connection board
 - 2 = Volume flow limiter
 - 3 = Control element
 - 4 = Filter insert
 - 5 = Connector G1/4 for checking the input pressure
 - 6 = Connector G1/8 for checking the output pressure



Operation:

The precondition for a constant volume flow is a constant pressure inclination (p_1-p_2) at the cover (4).

Depending on the inlet pressure p_1 , the outlet pressure p_3 , and the cover (4), the throttle piston (7) is shifted against the spring (6), thus regulating a constant pressure inclination (p_1-p_2) by changing the throttle position (13).

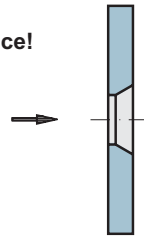
In the version comprising a control element (9), the pressure inclination (p_1-p_2) is monitored at the orifice (4) and hence the volume flow, too.

If the volume flow as preset by the orifice (4) is not achieved (p_1-p_2 too small), then the spring will shift the actuating piston (10) and the reed contact (12) opens.

Exchanging the orifice:

After removal of the locking plate (3) the orifice holder (5) can be taken out, thus allowing the orifice (4) to be exchanged without requiring any tools.

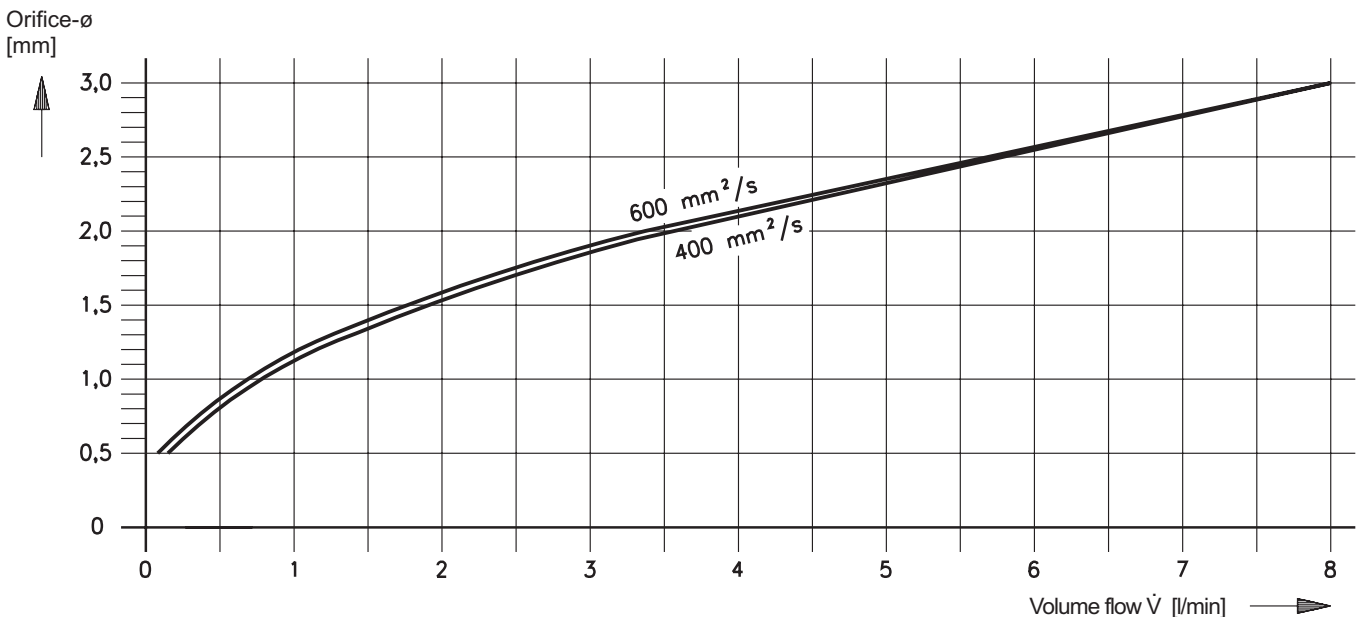
Mind the direction of flow when exchanging the orifice!



Pos.

- | | |
|---------------------|-----------------------------------------------------------------------------------------------------------------|
| 1 - Inlet | 8 - Locking screw G1/8
(Connection of a pressure measuring device for checking the outlet pressure possible) |
| 2 - Outlet | 9 - Control element |
| 3 - Locking plate | 10 - Switch-actuating piston |
| 4 - Orifice | 11 - Spring |
| 5 - Orifice holder | 12 - Reed contact |
| 6 - Spring | 13 - Throttle position |
| 7 - Throttle piston | |

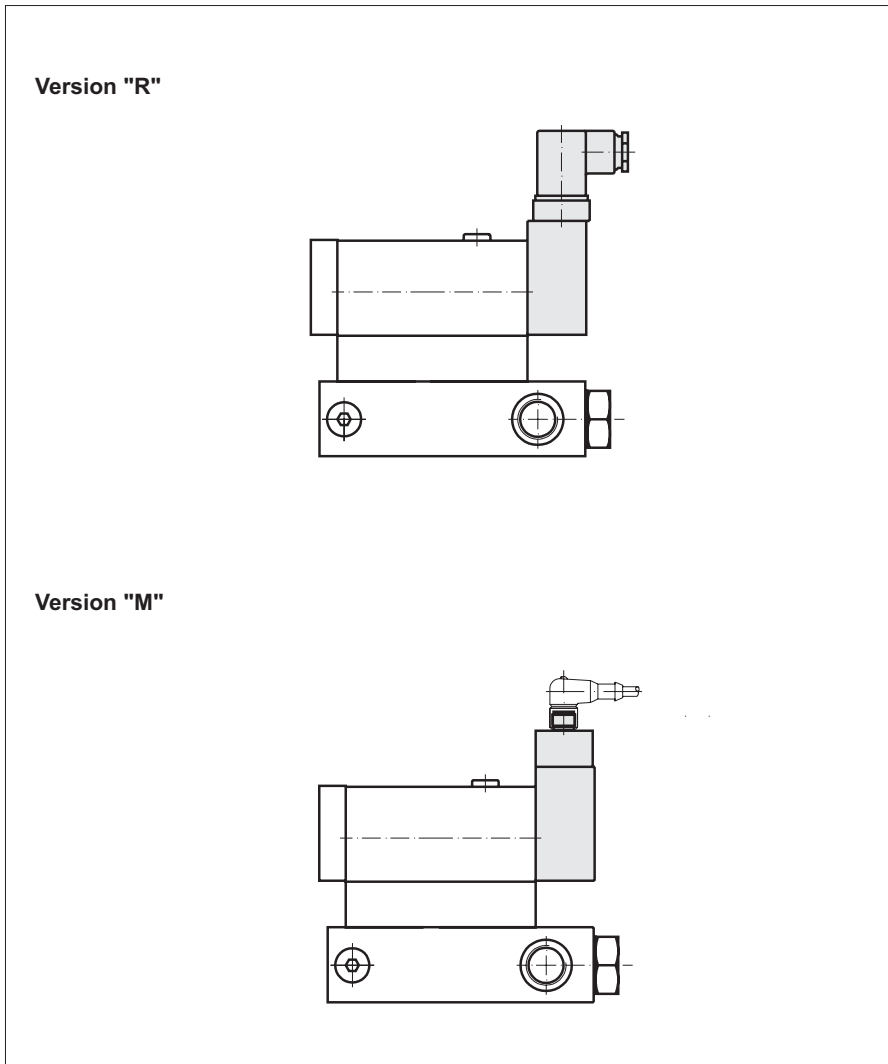
Volume flow depending on orifice- ϕ



- Subject to modifications -



- Subject to modifications -

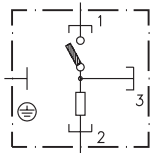


Functionality control:

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

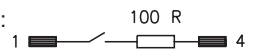
Version "R" with plug-type connection DIN 43650:

Switching diagram:



Version "M" with unit socket 4-pin (M12): (for associated cable socket see auxiliaries)

Switching diagram:



Accessories:

Cable socket for function control "M"
(please state purchase-no.)

<p>Cable socket with LED and cable</p>	<p>Cable socket with connecting terminals</p>
-----------------------------------------------	------------------------------------------------------

Cable socket with LED and cable:

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

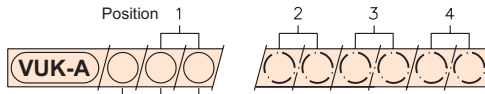
Cable socket with connecting terminals: (sans LED)

Purchase-no.	913.404-24
Type of connection:	Screws
Connecting	
cross section:	at max. 0,75 mm ²
Cable diameter:	4 ... 6 mm
System of protection:	IP67



Purchase-designation:

Volume flow limiter
with connection board



Version	Connection board	Orifice-Ø [mm]	Functionality control
①	1-position	Standard size 0,5 ... 3,0	Ⓡ Control element with plug-type connection DIN 43650
②	2-position	increasing by 0,1 each intermediate size see chart	Ⓜ Control element with unit socket 4-polig
④	4-position	Ⓑ without volume flow limiter (blind element)	⓪ without control element

Purchase-designation:

Connection board



Purchase-designation:

Volume flow limiter



Purchase-example:

Connection board 4-position with 3 volume
flow limiters

Position 1: Orifice-Ø 2,5
with control element R

Position 2: Orifice-Ø 2,8
without control element

Position 3: Orifice-Ø 3,0
with control element R

Position 4: with blind element
without control element

Purchase-designation:

Volume flow limiter
VUK-A/4/2,5/R/2,8/0/3,0/R/B/0

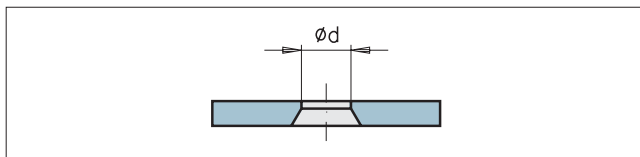
Spare parts

Volume flow limiter
(Purchase-designation)
Blind element
Functionality control R
Functionality control M
Filter element

Purchase-no.

DUK-A...
DUK-A/B/0
357.273-65
357.377-65
935.000-29

Flow volume and purchase numbers for orifices:



Ød [mm]		V̇ [l/min]		Purchase-no.
Standard size	Intermediate size ¹⁾	400 mm²/s	600 mm²/s	
0,5		0,15	0,10	357.244-45
	0,55	0,18	0,13	357.244-41
0,6		0,22	0,16	357.245-45
	0,65	0,27	0,20	357.245-41
0,7		0,32	0,26	357.246-45
	0,75	0,38	0,31	357.246-41
0,8		0,45	0,38	357.247-45
	0,85	0,52	0,44	357.247-41
0,9		0,60	0,52	357.248-45
	0,95	0,69	0,60	357.248-41
1,0		0,80	0,70	357.249-45
	1,05	0,89	0,79	357.249-41
1,1		1,00	0,90	357.250-45
	1,15	1,10	0,99	357.250-41
1,2		1,20	1,10	357.251-45
	1,25	1,30	1,20	357.251-41
1,3		1,40	1,30	357.252-45
	1,35	1,52	1,40	357.252-41
1,4		1,65	1,50	357.253-45
	1,45	1,77	1,64	357.253-41
1,5		1,90	1,80	357.254-45

Ød [mm]		V̇ [l/min]		Purchase-no.
Standard size	Intermediate size ¹⁾	400 mm²/s	600 mm²/s	
	1,55	2,04	1,92	357.254-41
1,6		2,20	2,05	357.255-45
	1,65	2,35	2,19	357.255-41
1,7		2,50	2,35	357.256-45
	1,75	2,65	2,52	357.256-41
1,8		2,80	2,70	357.257-45
	1,85	2,99	2,85	357.257-41
1,9		3,20	3,00	357.258-45
	1,95	3,39	3,19	357.258-41
2,0		3,60	3,40	357.259-45
2,1		4,00	3,85	357.260-45
2,2		4,40	4,25	357.261-45
2,3		4,75	4,70	357.262-45
2,4		5,20	5,15	357.263-45
2,5		5,60	5,60	357.264-45
2,6		6,20	6,20	357.265-45
2,7		6,60	6,60	357.266-45
2,8		7,10	7,10	357.267-45
2,9		7,60	7,60	357.268-45
3,0		8,00	8,00	357.269-45

¹⁾ by request

- Subject to modifications -