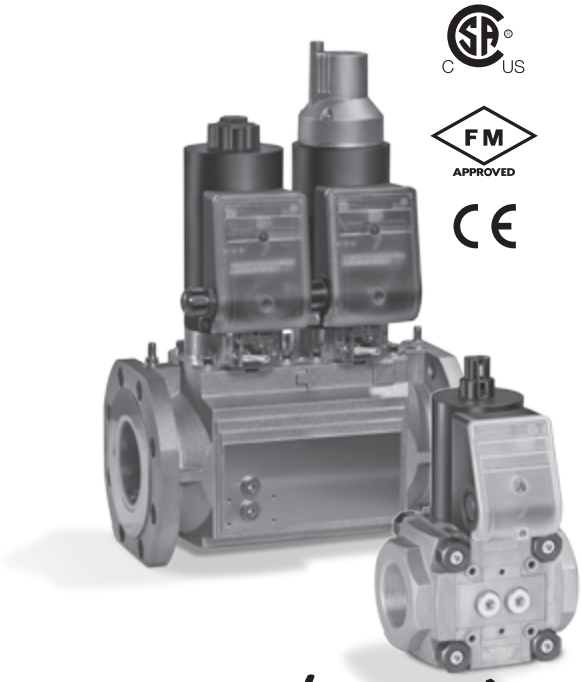
krom//schroder



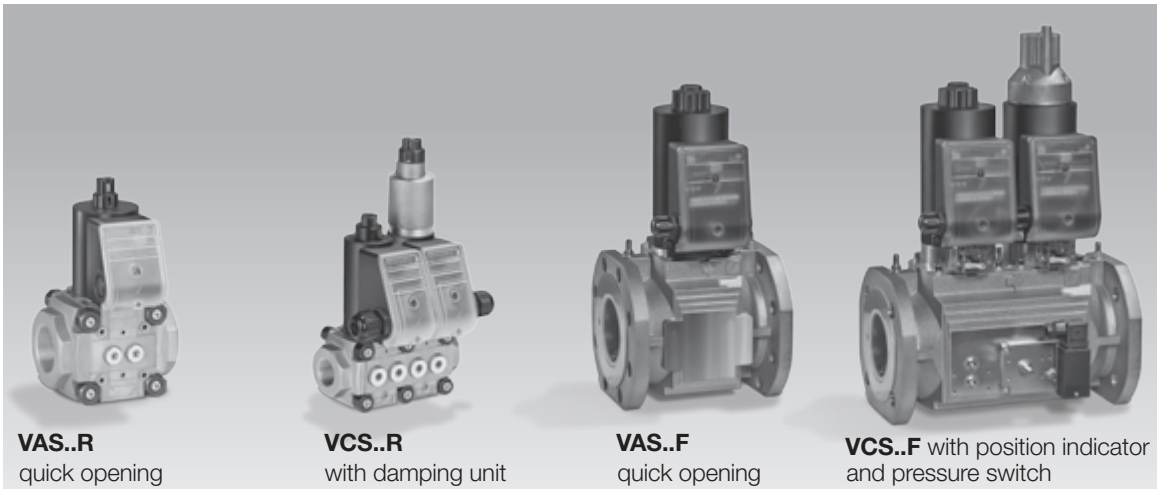
valVario®

Solenoid valves for gas VAS, Double solenoid valves VCS

- A further development of the solenoid valves for gas VG and VS
- Suitable for a max. inlet pressure of 500 mbar (7 psig)
- Easy installation into a system
- Compact design saves space
- No extra valve required owing to integrated flow adjustment
- Check indication by blue LED
- Position indicator with integral visual indicator
- Suitable for intermittent operation
- Higher flow rates with the same nominal size
- EC type-tested and certified
- VAS/VCS 1–3: FM and CSA approved

ELSTER GROUP

3.1.0.2 Edition 02.07 GB



VAS..R
quick opening

VCS..R
with damping unit

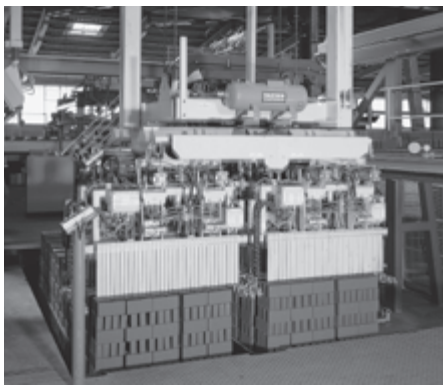
VAS..F
quick opening

VCS..F with position indicator and pressure switch

The modular design principle allows the individual components of the VAS, VCS Series to be easily assembled: e.g. quick opening, slow opening, with position indicator and visual indicator, slow opening with attached pressure switch.

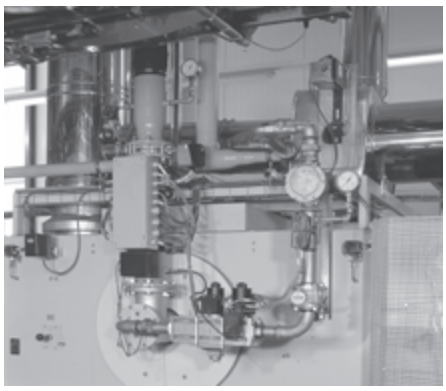
Application

Solenoid valves for gas VAS and double solenoid valves VCS for safeguarding and controlling the air and gas supply to gas burners and gas appliances. For use in gas control and safety systems in all sectors of the iron, steel, glass and ceramics industries, also in commercial heat generation, such as the packaging, paper and foodstuffs industries.



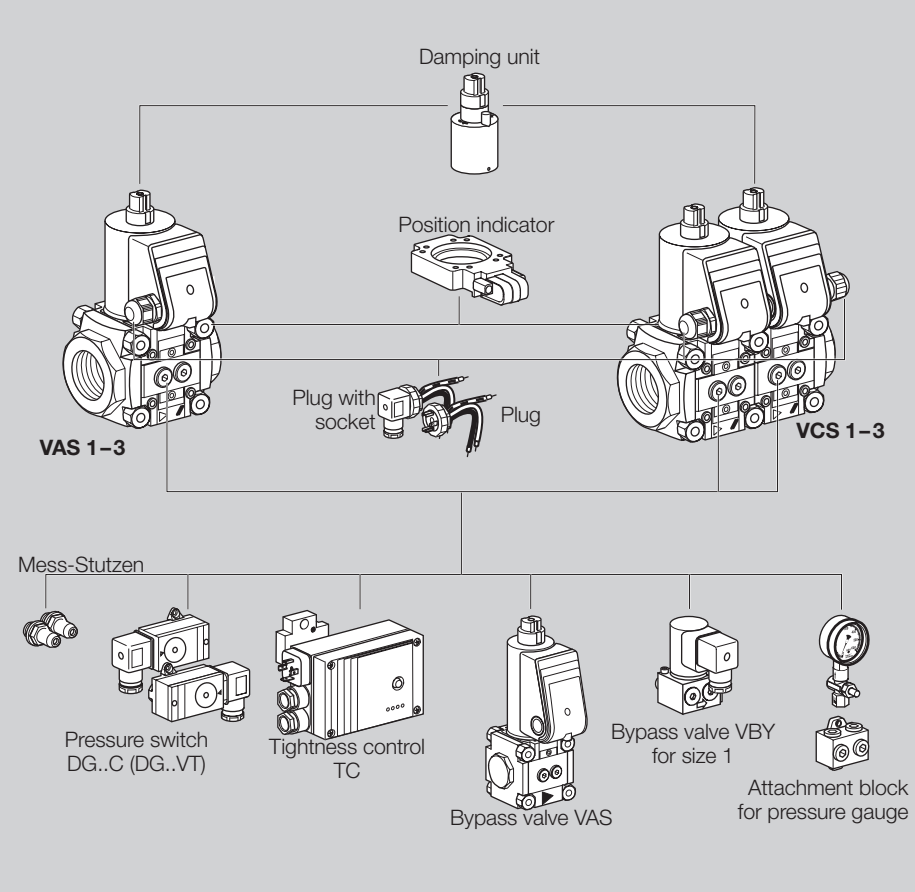
Ceramics industry

Aluminium industry: curing oven for wheel rims



Foodstuffs industry: baking oven

Application examples

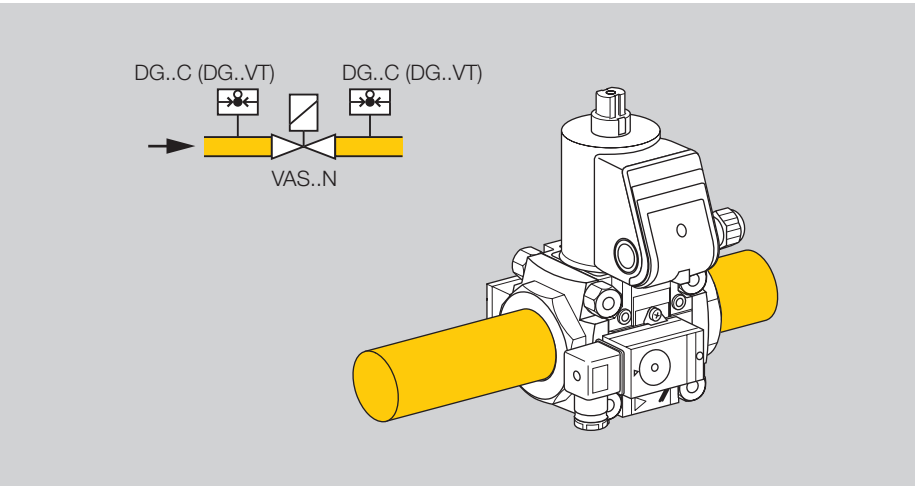


Solenoid valve for gas VAS 1–3, Double solenoid valve VCS 1–3

With threaded flange for pipe connections from DN 10 to 65.

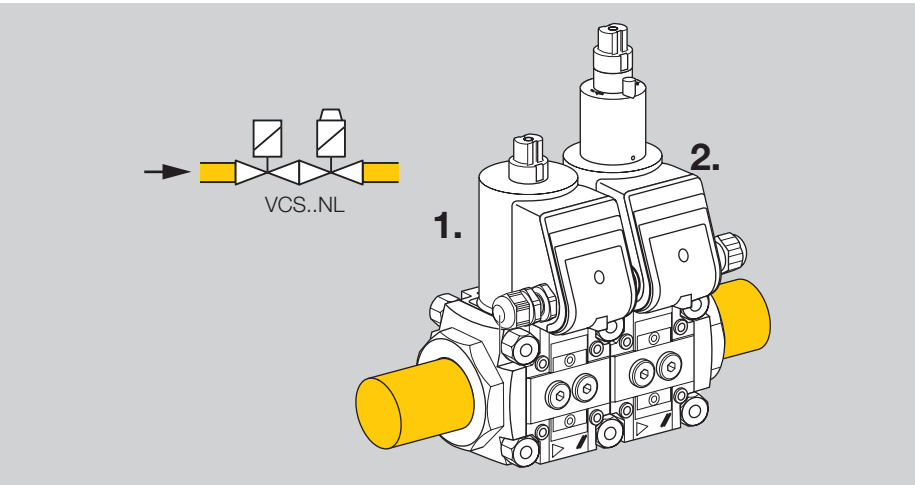
Modularly expandable with:

– Damping unit
– Position indicator
– Plug (with or without socket)
– Pressure test points
– Pressure switch DG..C (DG..VT) for inlet and/or outlet pressure
– Tightness control TC
– Bypass/pilot gas valve
– Attachment block for the connection of a pressure gauge, for example.



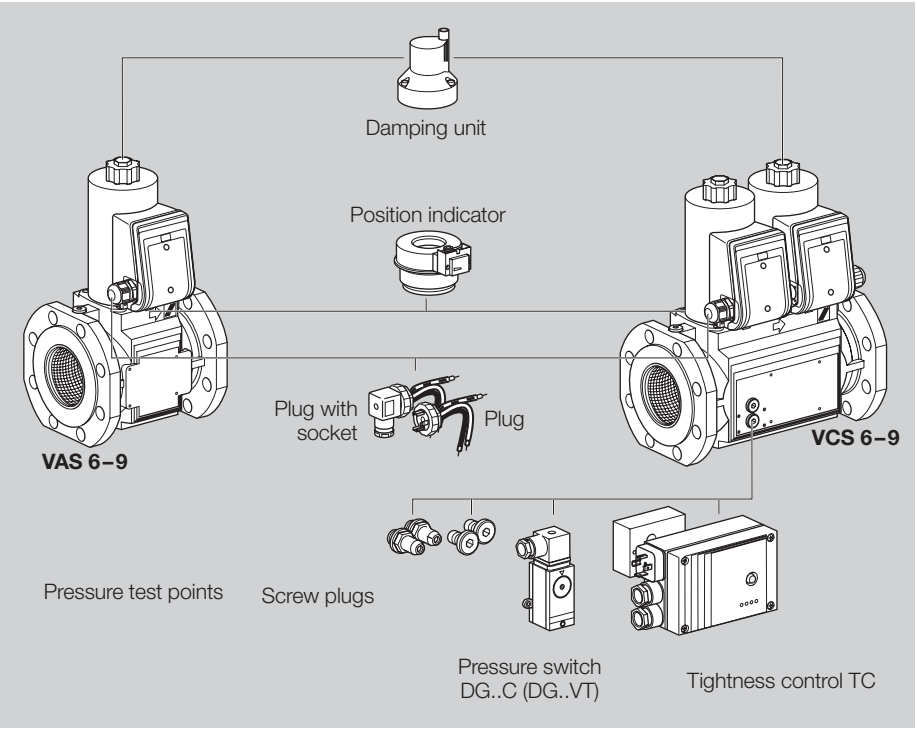
Gas solenoid valve with inlet and outlet pressure switch

VAS..N, quick opening,
pressure switch DG..C (DG..VT) for inlet pressure p_e and outlet pressure p_a



Double solenoid valve VCS with damping unit

VCS..NL,
1st valve: quick opening, quick closing, with flow adjustment,
2nd valve: slow opening, quick closing.



Solenoid valve for gas VAS 6–9, Double solenoid valve VCS 6–9

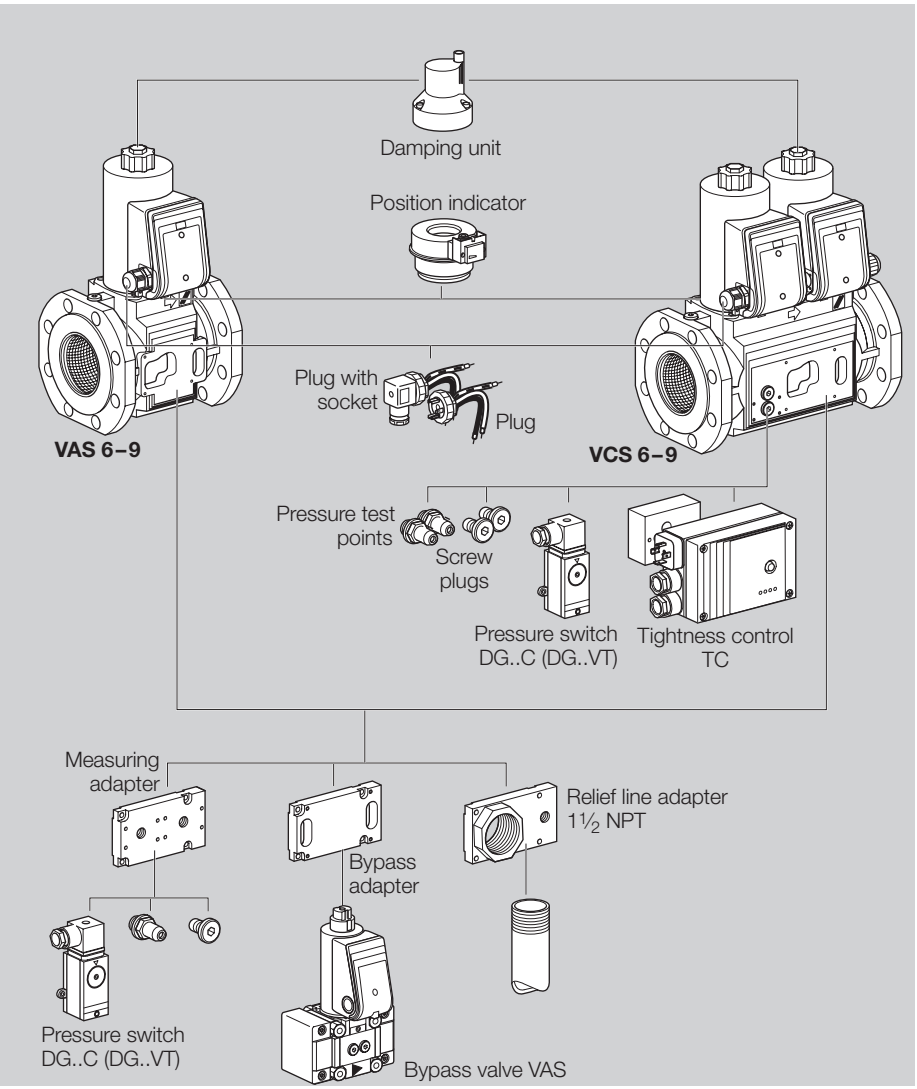
Gas solenoid valve and double solenoid valve with flanged connection (ISO or ANSI) for pipe connections from DN 65 to 125.

Modularly expandable with:

- Damping unit
- Position indicator
- Plug
- Plug with socket

VCS 6–9 with two threaded connections for:

- Screw plugs
- Pressure test points
- Pressure switch DG..C (DG..VT) for inlet/interspace pressure
- Tightness control TC



Solenoid valve for gas VAS 6–9, Double solenoid valve VCS 6–9 with connection for adapter plates

Gas solenoid valve and double solenoid valve with flanged connection (ISO or ANSI) for pipe connections from DN 65 to 125.

Modularly expandable with:

- Damping unit
- Position indicator
- Plug
- Plug with socket

With adapter plates, expandable with:

- Pressure switch DG..C (DG..VT)
  VAS 6–9: for inlet/outlet pressure
  VCS 6–9: for interspace/outlet pressure
- Pressure test points
- Screw plug
- Bypass or pilot gas valve VAS

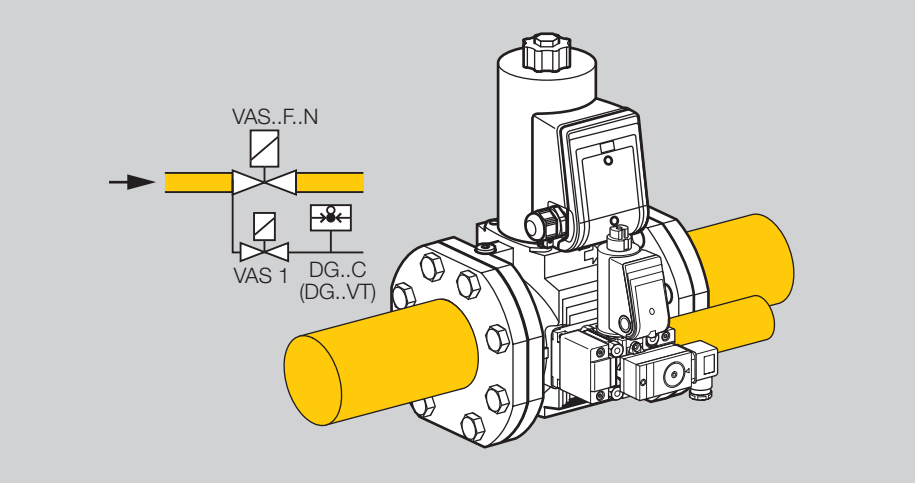
VCS 6–9

With two threaded connections for:

- Screw plugs
- Pressure test points
- Pressure switch for inlet/interspace pressure
- Tightness control TC

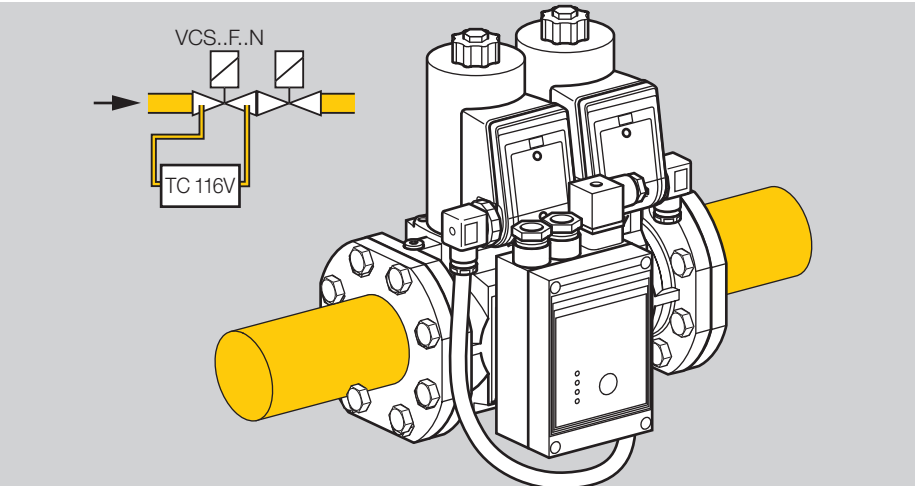
VCS 6–9T

Expandable with relief line adapter (1½ NPT thread) for relief line.



Gas solenoid valve with pilot gas valve and pressure switch

VAS..F..N: quick opening, quick closing,
VAS 1 as pilot gas valve with pressure switch DG..C (DG..VT).



Double solenoid valve with tightness control

VCS..F..N: quick opening, quick closing valves,
tightness control TC 116V.

Replacement possibilities

Solenoid valve for gas VG is to be replaced by VAS

Type VG		Solenoid valve for gas	Solenoid valve for gas		Type VAS
10/15	DN 10	internal 15 mm (0.59")	Size 1	DN 10	110
15	DN 15		Size 1	DN 15	115
15/12	DN 15	internal 12 mm (0.47")	–	–	–
20	DN 20		Size 1	DN 20	120
25	DN 25		Size 1	DN 25	125
25/15	DN 25	internal 15 mm (0.59")	–	–	–
40/32	DN 40	internal 32 mm (1.26")	Size 2	DN 40	240
40	DN 40		Size 2	DN 40	240
40/33	DN 40	internal 33 mm (1.30")	–	–	–
50	DN 50		Size 3	DN 50	350
50/39	DN 50	internal 39 mm (1.54")	–	–	–
50/65	DN 50	internal 65 mm (2.59")	Size 3	DN 50	350
65	DN 65		Size 3	DN 65	365
65			Size 6	DN 65	665
65/49	DN 65	internal 49 mm (1.93")	–	–	–
80	DN 80		Size 7	DN 80	780
100	DN 100		Size 8	DN 100	8100
T		T-product	T-product		T
R		Rp internal thread	Rp internal thread		R
N		NPT internal thread	NPT internal thread		N
F		ISO flange	ISO flange		
A		ANSI flange	ANSI flange		
02		$p_{e\ max.}$: 200 mbar (2 psig)	$p_{e\ max.}$:	500 mbar (7 psig)	●
03		360 mbar (5 psig)		500 mbar (7 psig)	●
10		1000 mbar (14.5 psig)	–		–
18		1800 mbar (26.1 psig)	–		–
N		Quick opening	Quick opening		/N
L		Slow opening	Slow opening		/L
K		Mains voltage: 24 V DC	Mains voltage:	24 V DC	K
Q		120 V AC		120 V AC	Q
T		220/240 V AC		230 V AC	W
3		Electrical connection via terminals	Electrical connection via terminals		3
6		Electrical connection via socket	Electrical connection via socket		○
9		Metal terminal connection box	Electrical connection via terminals		3
1		Screw plug at the inlet	Screw plug at the inlet and outlet		●
3		Screw plug at the inlet and outlet	Screw plug at the inlet and outlet		●
4		Pressure test point at the inlet	Pressure test point at the inlet and outlet*		○
6		Pressure test point at the inlet and outlet	Pressure test point at the inlet and outlet*		○
D		Flow adjustment	Flow adjustment		●
S		Position indicator	Position indicator with visual indicator**		S
G		Position indicator for 24 V	Position indicator for 24 V with visual indicator**		G
OCS		Valve stem overtravel switch	Position indicator with visual indicator**		S
CPS		Position indicator	Position indicator with visual indicator**		S
VI		Visual indicator	Position indicator with visual indicator**		S
M		Suitable for biologically produced methane	Suitable for biologically produced methane		●
V		Viton valve disc seal	Viton valve disc seal		–
VG 25R02NT31DM		**Example**	**Example**		VAS 125R/NW

● = standard, ○ = available

* Pressure test points may be attached at the left and/or right-hand side.

** Position indicator with visual indicator can be attached at the left- or right-hand side.

MODULINE solenoid valves for gas VS is to be replaced by VAS

Type	Flange			Flange	Type
VS		Solenoid valve for gas	Solenoid valve for gas		VAS
115 125	⅜"	Size 115 Size 125	Size 1	DN 10	110
115 125	½"	Size 115 Size 125	Size 1	DN 15	115
115 125	¾"	Size 115 Size 125	Size 1	DN 20	120
115 125	1"	Size 115 Size 125	Size 1	DN 25	125
230 240	1"	Size 232 Size 240	Size 2	DN 25	225
232 240	1½"	Size 232 Size 240	Size 2	DN 40	240
350	1½"	Size 350	Size 3	DN 40	340
350	2"	Size 350	Size 3	DN 50	350
ML		MODULINE + connection flanges Rp internal thread	Rp internal thread		R
TML		MODULINE + connection flanges NPT internal thread	NPT internal thread		N
02		$p_{e\ max.}$ 200 mbar (2 psig)	$p_{e\ max.}$ 500 mbar (7 psig)		●
03		$p_{e\ max.}$ 360 mbar (3 psig)	$p_{e\ max.}$ 500 mbar (7 psig)		●
N		Quick opening	Quick opening		/N
L		Slow opening	Slow opening		/L
D		Flow adjustment	Flow adjustment		●
K		Mains voltage: 24 V DC	Mains voltage: 24 V DC		K
Q		120 V AC	120 V AC		Q
T		220/240 V AC	230 V AC		W
3		Electrical connection via terminals	Electrical connection via terminals		3
6		Electrical connection via socket	Electrical connection via socket		○
9		Metal terminal connection box	Electrical connection via terminals		3
●		Pressure test point at the inlet	Pressure test point at the inlet and outlet		○
S		Position indicator	Position indicator		S
G		Position indicator for 24 V	Position indicator for 24 V		G
M		non-ferrous metals	non-ferrous metals		●
V		Viton valve disc seal	–		–
VS 240ML02LT3 with Rp 1½ connection flanges		**Example**	**Example**		VAS 240R/LW with test points

● = standard, ○ = available

Selection

Solenoid valve for gas VAS

Type	T	–	-0	10	15	20	25	32	40	50	65	80	100	125	/–	/-0	/10	/15	/20	/25	/32	/40	/50	/65	/80	/100	/125
VAS 1	○	●	●	●	●	●	●								●	●	●	●	●	●							
VAS 2	○	●					●	●	●	●					●					●	●	●	●				
VAS 3	○	●							●	●	●				●							●	●	●			
VAS 6	○										●													●			
VAS 7	○											●													●		
VAS 8	○												●													●	
VAS 9	○													●													●

T-Product = T

Inlet flange nominal size
No inlet flange = -
Blind flange = -0

Outlet flange nominal size
No outlet flange = -
Blind flange = /0
Specification may be omitted if outlet = inlet

Cont.

Type	R	N	F	A	05 [3]	N	L	K	Q	W	A	S [1]	G [1]	R [1]	L [1]	3 [3]			P [3]	M [3]
VAS 1	●	○			●	●	●	●	●	●		○	○	○	○	●	○	○		
VAS 2	●	○			●	●	●	●	●	●		○	○	○	○	●	○	○		
VAS 3	●	○			●	●	●	●	●	●		○	○	○	○	●	○	○		
VAS 6			●	○	●	●	●	●	●	●		○	○	○	○	●	○	○	●	●
VAS 7			●	○	●	●	●	●	●	●		○	○	○	○	●	○	○	●	●
VAS 8			●	○	●	●	●	●	●	●		○	○	○	○	●	○	○	●	●
VAS 9			●	○	●	●					●	○	○	○		●	○	○	●	●

Rp internal thread = R
NPT internal thread = N
ISO flange = F
ANSI flange = A

Max. inlet pressure
p_e max. 500 mbar = 05 [3]

Quick opening, quick closing = N
Slow opening, quick closing = L

Mains voltage: 24 V DC = K
120 V AC; 50/60 Hz = Q
230 V AC; 50/60 Hz = W
120–230 V AC; 50/60 Hz = A

Position indicator with visual indicator = S [1]
Position indicator with visual indicator and gold contacts = G [1]

Viewing side: right = R [1]
left = L [1]

Electrical connection:
M20 cable gland = 3 [3]
Plug with socket
Plug without socket

Measuring connection at the top: 2 screw plugs at the inlet and outlet = P [3]
2 pressure test points at the inlet and outlet = M [3]

Cont.

Type	/P[3]	/M[3]	/1[3]	/2[3]	/3[3]	/4[3]	/I[4]	/R[4]	/H[4]	/B[4]	/Z[4]	V	E	/-[3]	P[3]	M[3]	1[3]	2[3]	3[3]	4[3]	-[3]
VAS 1	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○
VAS 2	○	○	○	○	○	○				○	○			○	○	○	○	○	○	○	○
VAS 3	○	○	○	○	○	○				○	○			○	○	○	○	○	○	○	○
VAS 6	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○
VAS 7	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○
VAS 8	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○
VAS 9	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○

Accessories, right, inlet:
Screw plugs = /P[3]
Pressure test point for inlet pressure p_e = /M[3]
Gas pressure switch: DG../VC (DG../VT) 17 = /1[3]
DG../VC (DG../VT) 40 = /2[3]
DG../VC (DG../VT) 110 = /3[3]
DG../VC (DG../VT) 300 = /4[3]
Bypass valve VBY, fitted = /I[4]
Pilot gas valve VBY, fitted = /R[4]
Main valve attachment side = /H[1]
Bypass valve VAS 1, fitted = /B[4]
Pilot gas valve VAS 1, fitted = /Z[4]
Prepared for breather line NPT 1½" = V
Rp 1" = E
None = /-[3]

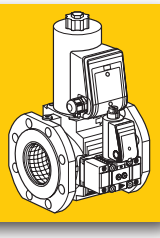
Accessories, right, outlet:
Screw plug = P[3]
Pressure test point for outlet pressure p_a = M[3]
Gas pressure switch: DG../VC (DG../VT) 17 = 1[3]
DG../VC (DG../VT) 40 = 2[3]
DG../VC (DG../VT) 110 = 3[3]
DG../VC (DG../VT) 300 = 4[3]
None = -[3]

Accessories on left-hand side equivalent to those on right-hand side [2]

1) VAS 1–3: Position indicator and bypass valve cannot be fitted together on one side.
2) The "accessories on the left-hand side" have the same type code as the "accessories on the right-hand side" (see order example: 1 screw plug each at the inlet and outlet on the left-hand side = /PP).
3) The specifications are only included in the type designation for VAS 6–9.
4) VAS 1–3: Position indicator and bypass valve cannot be fitted together on one side.
The "accessories on the left-hand side" have the same type code as the "accessories on the right-hand side" (see order example: 1 screw plug each at the inlet and outlet on the left-hand side = /PP).

Order example VAS 665F05NW3P/B-/PP

● = standard
○ = available



Double solenoid valve VCS

Type	T	–	-0	10	15	20	25	32	40	50	65	80	100	125	/–	/-0	/10	/15	/20	/25	/32	/40	/50	/65	/80	/100	/125
VCS 1	○	●	●	●	●	●	●								●	●	●	●	●	●							
VCS 2	○	●					●	●	●	●					●					●	●	●	●				
VCS 3	○	●							●	●	●				●							●	●	●			
VCS 6	○										●													●			
VCS 7	○											●													●		
VCS 8	○												●													●	
VCS 9	○													●													●

T-Product = T

Inlet flange nominal size
No inlet flange = -
Blind flange = -0

Outlet flange nominal size
No outlet flange = -
Blind flange = /0
Specification may be omitted if outlet = inlet

Cont.

Type	R	N	F	A	05 3)	N	L	N	L	K	Q	W	A	S 1)	G 1)	R 1)	L 1)	3 3)			P 3)	M 3)
VCS 1	●	○			●	●	●	●	●	●	●	●		○	○	○	○	●	○	○		
VCS 2	●	○	○ 2)	○ 2)	●	●	●	●	●	●	●	●		○	○	○	○	●	○	○		
VCS 3	●	○	○ 2)	○ 2)	●	●	●	●	●	●	●	●		○	○	○	○	●	○	○		
VCS 6			●	○	●	●		●	●	●	●	●		○	○	○	○	●	○	○	●	●
VCS 7			●	○	●	●		●	●	●	●	●		○	○	○	○	●	○	○	●	●
VCS 8			●	○	●	●		●	●	●	●	●		○	○	○	○	●	○	○	●	●
VCS 9			●	○	●	●		●					●	○	○	○		●	○	○	●	●

Rp internal thread = R
NPT internal thread = N
ISO flange = F
ANSI flange = A

Max. inlet pressure p_e max.
500 mbar = 05 3)

1st valve quick opening, quick closing = N
1st valve slow opening, quick closing = L

2nd valve quick opening, quick closing = N
2nd valve slow opening, quick closing = L

Mains voltage: 24 V DC = K
120 V AC; 50/60 Hz = Q
230 V AC; 50/60 Hz = W
120–230 V AC; 50/60 Hz = A

Position indicator with visual indicator = S 1)
Position indicator with visual indicator and gold contacts = G 1)

Viewing side: right = R 1)
left = L 1)

Electrical connection:
M20 cable gland = 3 3)
Plug with socket
Plug without socket

Measuring connections at the top of the inlet/outlet flange: Screw plugs = P 3)
Pressure test points = M 3)

Cont.

Type	/P [1]	/M [1]	/1 [1]	/2 [1]	/3 [1]	/4 [1]	/I [5]	/R [5]	/H [1]	/B [5]	/Z [5]	/- [1]	P [1]	M [1]	1 [1]	2 [1]	3 [1]	4 [1]	- [1]
VCS 1	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
VCS 2	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○
VCS 3	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○
VCS 6	○	○	○	○	○	○			○	○	○		○	○	○	○	○	○	○
VCS 7	○	○	○	○	○	○			○	○	○		○	○	○	○	○	○	○
VCS 8	○	○	○	○	○	○			○	○	○		○	○	○	○	○	○	○
VCS 9	○	○	○	○	○	○			○	○	○		○	○	○	○	○	○	○

Accessories, right, inlet:
Screw plugs = /P [1]
Pressure test point p_e = /M [1]
Gas pressure switch: DG 17/VC (DG 17/VT) = /1 [1]
DG 40/VC (DG 40/VT) = /2 [1]
DG 110/VC (DG 110/VT) = /3 [1]
DG 300/VC (DG 300/VT) = /4 [1]
Bypass valve VBY, fitted = /I [5]
Pilot gas valve VBY, fitted = /R [5]
Main valve attachment side = /H [1]
Bypass valve VAS 1, fitted = /B [5]
Pilot gas valve VAS 1, fitted = /Z [1]
None = /- [1]

Accessories, right, interspace 1:
Screw plug = P [1]
Pressure test point p_a = M [1]
Gas pressure switch: DG 17/VC (DG 17/VT) = 1 [1]
DG 40/VC (DG 40/VT) = 2 [1]
DG 110/VC (DG 110/VT) = 3 [1]
DG 300/VC (DG 300/VT) = 4 [1]
None = - [1]

Cont.

Type	P[1]	M[1]	1[1]	2[1]	3[1]	4[1]	I[5]	R[5]	H[1]	B[5]	Z[5]	V	E	-[1]	P[1]	M[1]	1[1]	2[1]	3[1]	4[1]	-[1]
VCS 1	○	○	○	○	○	○	○	○	○	○	○			○	○	○	○	○	○	○	○
VCS 2	○	○	○	○	○	○			○	○	○			○	○	○	○	○	○	○	○
VCS 3	○	○	○	○	○	○			○	○	○			○	○	○	○	○	○	○	○
VCS 6	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○
VCS 7	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○
VCS 8	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○
VCS 9	○	○	○	○	○	○				○	○	○	○	○	○	○	○	○	○	○	○

Accessories, right, interspace 2:
Screw plugs = P[1]
Pressure test point for inlet pressure p_e = M[1]
Gas pressure switch: DG 17/VC (DG 17/VT) = 1[1]
DG 40/VC (DG 40/VT) = 2[1]
DG 110/VC (DG 110/VT) = 3[1]
DG 300/VD (DG 300/VT) = 4[1]
Bypass valve VBY, fitted = I[5]
Pilot gas valve VBY, fitted = R[5]
Main valve attachment side = H[1]
Bypass valve VAS 1, fitted = B[5]
Pilot gas valve VAS 1, fitted = Z[5]
Prepared for breather line NPT 1½" = V
Rp 1" = E
None = -[1]

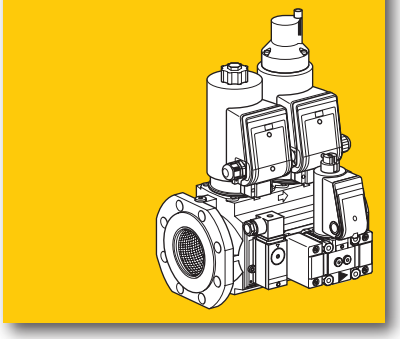
Accessories, right, outlet:
Screw plug = P1)
Pressure test point p_a = M1)
Gas pressure switch: DG../VC (DG../VT) 17 = 1[1]
DG../VC (DG../VT) 40 = 2[1]
DG../VC (DG../VT) 110 = 3[1]
DG../VD (DG../VT) 300 = 4[1]
None = -[1]

Accessories on left-hand side equivalent to those on right-hand side[4]

[1] VCS 1–3: Position indicator and bypass valve cannot be fitted together on one side.
[2] Available for inlet/outlet flange nominal sizes DN 40 and DN 50.
[3] The specifications are only included in the type designation for VAS 6–9.
[4] The “accessories on the left-hand side” have the same type code as the “accessories on the right-hand side” (see order example: 1 screw plug each at the inlet, interspace 1, interspace 2 and outlet on the left-hand side = /PPPP).
[5] VCS 1–3: Position indicator and bypass valve cannot be fitted together on one side. The specifications are only included in the type designation for VAS 6–9.

Order example

VCS 665F05NLWSR3P/1PB-/PPPP



● = standard
○ = available

Technical data

Types of gas: Natural gas, LPG (gaseous), biologically produced methane (max. 0.1 %-by-vol. H_2S) or air; other gases on request.

The gas must be dry in all temperature conditions and must not condense.

Max. inlet pressure p_e: 500 mbar (7 psig), VAS 1–3T:
FM approved (valve remains closed): 700 mbar (10 psig), CSA approved: 350 mbar (5 psig).

Flow adjustment limits the maximum flow volume between 20 and 100%. On VAS 1–3, the setting can be monitored on an indicator.

Adjustment of the start gas rate: 0 to 70%.

Opening times:
VAS../N quick opening: ≤ 1 s;
VAS../L slow opening: up to 30 s.

Closing time:
VAS../N, VAS../L quick closing: < 1 s.

Ambient temperature: -20 – +60°C (-4 – +140°F),
no condensation permitted,
Storage temperature: 0–60°C (32–140°F).

Safety valve:
Class A Group 2 pursuant to EN 13611 and EN 161,
Factory Mutual Research Class: 7410 ans 7411,
ANSI Z21.21 and CSA 6.5.

Mains voltage:
230 V AC, +10/-15%, 50/60 Hz;
120 V AC, +10/-15%, 50/60 Hz;
24 V DC, ±20%.

VAS/VCS 9:
120–230 V~, +10/-15 %, 50/60 Hz.

Cable gland: M20 x 1.5

Electrical connection: max. 2.5 mm^2 (AWG 12) or plug with socket to EN 175301-803.

Power consumption:

Type	24 V= [W]	120 V~ [W]	230 V~ [W]
VAS 1	29	30	30
VAS 2	46	54	53
VAS 3	58	63	63
VAS 6	70	63	63
VAS 7	75	90	83
VAS 8	99	117	113
VAS 9	–	200 (15*)	200 (15*)
VCS 1	58	60	60
VCS 2	92	108	106
VCS 3	116	126	126
VCS 6	140	126	126
VCS 7	150	180	166
VCS 8	198	234	226
VCS 9	–	400 (30*)	400 (30*)

* After opening.

Enclosure: IP 65.

Duty cycle: 100%.

Power factor of the solenoid coil: cos φ = 1.

Switching frequency:
VAS..N: Arbitrary,
VAS..L: There must be a period of 20 seconds between switching off and on again so that the damping is fully effective.

Valve housing: Aluminium,
Valve seal: NBR.

Connection flanges:
VAS/VCS 1-3 with internal thread:
Rp pursuant to ISO 7-1, NPT pursuant to ANSI/ASME
VAS/VCS 6-9 with ISO flange pursuant to ISO 7005, with ANSI flange pursuant to ASA.

Position indicator contact rating:
VAS..S:
125–250 V AC, 50/60 Hz,
max. 3 A (resistive load);
VAS..G:
125–250 V AC, 50/60 Hz,
max. 0.1 A (resistive load);
12–48 V AC, 50/60 Hz,
max. 0.1 A (resistive load).

Switching frequency: 5× per minute.

switching current [A]	switching cycles	
	cos φ = 1	cos φ = 0,6
0.1	500,000	500,000
0.5	300,000	250,000
1	200,000	100,000
3	100,000	–

VAS/VCS 9

Switching frequency: 1× per minute.

Max. temperature of solenoid coil:
+20°C (+68°F) above ambient temperature.

Current consumption at 20°C (68°F):

Pick-up current: 1.8 A

Holding current: 0.3 A.

Certification

EC type-tested and certified
pursuant to

- Gas Appliances Directive (90/396/EEC) in conjunction with EN 161, EN 13611 and EN 126
- Machinery Directive (98/37/EC),
- Low Voltage Directive (73/23/EEC) in conjunction with the relevant standards,
- EMC Directive (89/336/EEC) in conjunction with EN 55014.

FM approved
VAS 1–3, VCS 1–3:
Factory Mutual Research Class: 7410 and 7411 Safety overpressure slam shut valves. Designed for applications pursuant to NFPA 85 and NFPA 86.
VAS 6–9, VCS 6–9:
In preparation.

CSA approved
VAS 1–3, VCS 1–3:
Canadian Standard Association – ANSI Z21.21 and CSA 6.5
VAS 6–9, VCS 6–9:
In preparation.

UL approval
In preparation.

Maintenance cycles

At least once per annum, at least twice per annum for biologically produced methane.

Detailed information on this product

www.docuthek.com

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