

*Liquids to Value*



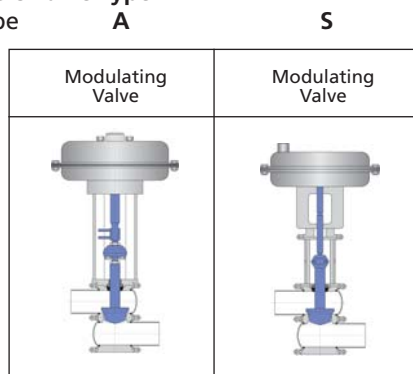
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## Order Code for VARIVENT® Modulating Valves

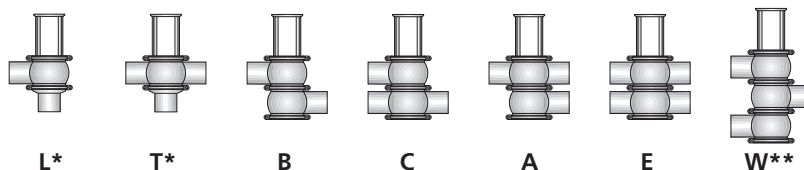
Made by GEA Tuchenhausen



# 1 = Basic Valve Type



## 2 = Housing combination



\* not available for valve type AL, AT in size DN 125 and 6" IPS, \*\* available for type A only

## 3 = Special valve options

- F Control cone equal percentage
- J Control cone linear
- W Shuttle valve Type W  
(Only available for valve type AW with linear cone and metal to metal seal)
- X Shuttle valve Type X  
(Only available for valve type AW with linear cone and metal to metal seal)
- K 3-stage seat  
(Only available for valve type AB, AC, AA, AE with linear cone and metal to metal seal)

## 4 = Valve size top/middle

OD 1", 1 1/2", 2", 2 1/2", 3", 4"; DN 25, 40, 50, 65, 80, 100, 125; IPS 2", 3", 4", 6"

## 5 = Valve size bottom

OD 1", 1 1/2", 2", 2 1/2", 3", 4"; DN 25, 40, 50, 65, 80, 100, 125; IPS 2", 3", 4", 6"

## 6 = Fail position of valve

- Z closed
- A open

## 7 = Feedback switches

- 0 no feedback
- 1 1 feedback (Valve type S with positioner 3760)
- 2 2 feedbacks

## 8 = Type of feedback

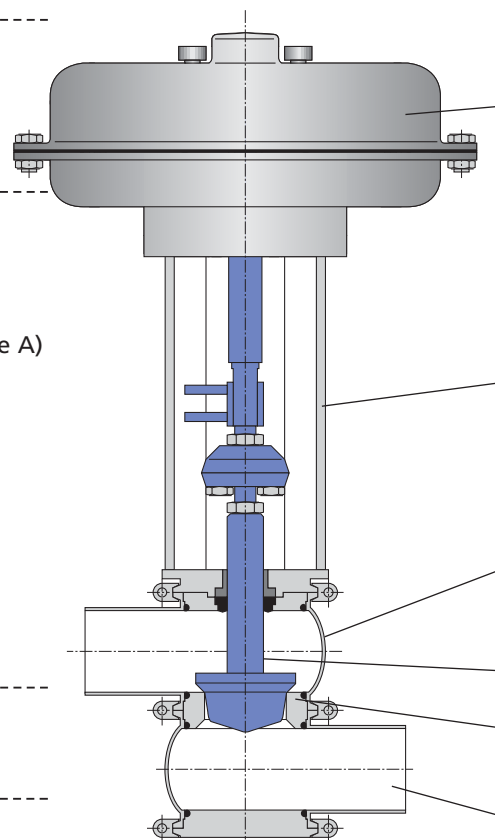
- 0 without
- B 24 V DC 3-wire PNP (Valve type A with positioner 824)
- F 24 V DC 2-wire
- M Binary-module (Valve type A with positioner 827A)
- S Slot-Prox.-Module (Valve type A with positioner 827A)
- L Software limit switch (Valve type S with positioner 3730-2)

Example

A	E	F
1	2	3

**9 = Actuator**

MFI-20 (Valve type A)  
 MFI-30 (Valve type A)  
 MFIII-30 (Valve type A)  
 MFIII-60 (Valve type A)  
 240 (Valve type S)  
 350 (Valve type S)  
 700 (Valve type S)

**Modulating Valve  
Type A****10 = Number of springs**

3 (only for valve type A)  
 6 (only for valve type A)  
 12 (only for actuator type MFIII-60)  
 0 Fixed number of springs (only for type S)

**11 = Positioner**

1 824 pneumatic (Valve type A)  
 2 824 electropneumatic (Valve type A)  
 3 824 electropneumatic with Ex-proof, intrinsically (Valve type A)  
 4 824 electropneumatic with Ex-proof, pressure resistant (Valve type A)  
 5 827A electropneumatic (Valve type A)  
 6 827A electropneumatic Profibus PA (Valve type A)  
 7 827A electropneumatic Eex (Valve type A)  
 8 3766 pneumatic (Valve type S)  
 9 3767 electropneumatic (Valve type S)  
 12 3780 electropneumatic (Valve type S)  
 13 3730-4 Profibus (Valve type S)  
 15 3730-0 electropneumatic (Valve type S)  
 16 3730-2 electropneumatic (Valve type S)  
 17 3730-3 electropneumatic HART (Valve type S)  
 18 3730-5 Fieldbus

**12 = Type of valve disk seal**

M metal to metal, without V-ring  
 W soft seal (with V-ring)

**13 = KVS value**

According to table in Tuchenhausen Catalogue, register 3  
 (Enter KVS value into Field 13)

**14 = Gasket material**

1 EPDM (FDA)  
 2 FKM (FDA)  
 3 HNBR (FDA)  
 4 FFKM, on request

**15 = Surface finish of housings**

1 inside Ra 1,2 µm (# 3 polished ID, 45-50 RA, 100 Grit), outside matt (Inch IPS)  
 2 inside Ra 0,8 µm (polished ID, 30-35 RA, 150 Grit), outside matt (DN Inch OD)  
 3 inside Ra 0,8 µm (polished ID, 30-35 RA, 150 Grit), outside smooth (3A Standard)  
 4 inside Ra 0,4 µm (# 6 polished ID, 15-20 RA, 240 Grit), outside matt  
 6 inside Ra 0,5 µm (# 4 polished ID, 20-25 RA, 180 Grit), outside matt  
 7 inside Ra 0,5 µm (# 4 polished ID, 20-25 RA, 180 Grit), outside smooth  
 8 inside Ra 0,4 µm (# 6 polished ID, 15-20 RA, 240 Grit), outside smooth  
 X on request

OD2"	/	OD2"	-	Z	-	2	B	-	MFI-30	/	3	/	2	-	M	/	18	-	1	1	N	/	52
4		5		6		7	8		9		10		11		12		13		14	15	16		17

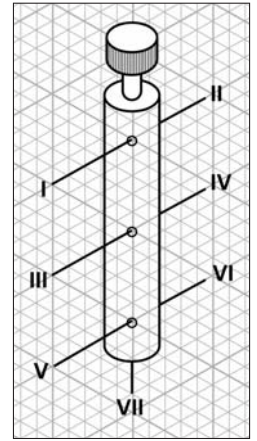
## 16 = Housing process connection

### N weld ends

J with connection fittings (Specify process connections **separately**)

- TK VARIVENT®-flange connection cpl., grooved flange at the housing
- TN VARIVENT®-grooved flange cpl., incl. O-ring, screws and nuts
- TF VARIVENT®-flange
- CO Tri-Clamp
- GK Pipe union DIN 11851, male part at the housing
- KO Liner SD DIN 11851, incl. groove nut
- GO Male part DIN 11851, incl. seal ring G
- ASK Aseptic-flange connection cpl., short
- NFK Aseptic-grooved flange, short
- BFK Aseptic-counter flange, short
- ASN Aseptic-flange connection cpl., normal
- NFN Aseptic-grooved flange, normal
- BFN Aseptic-counter flange, normal

For multiple process connections the connection ports should be specified



## 17 = Other special optional equipment

(Expand this field with "/" as necessary to include all required options)

- E Elektrolytical polished
- 1 Pressure gauge set
- 2B Positioner feedback, 4 - 20 mA, 3-wire (Valve type A)
- 2F Positioner feedback, 4 - 20 mA, 2-wire
- 2M Analog-module (Valve type A with positioner 827A)
- 2E Positioner feedback, 4 - 20 mA, 2-wire, NAMUR (Valve type A)
- 3 Hart-module (Valve type A with positioner 827A)
- 4 3/2 solenoid valve 24 V DC (Valve type S)
- 5 additional Handwheel
- 7 Ex-design
- 24 Sterile lock (Valve type A)
- 25 Jacketed housing
- 41 Factory certificate acc. to EN10204-2.2
- 42 Material acceptance test certificate acc. to EN10204-3.1B (for housing)
- 50 Stainless steel ID tag
- 52 Self adhesive ID tag
- 55 Cable strip (10 characters)

actuator

lantern

upper  
housing

valve disk

valve seat

lower  
housing

## Purchase Order for VARIVENT® Modulating Valves

Customer: \_\_\_\_\_

Requested delivery date: \_\_\_\_\_

Contact person: \_\_\_\_\_

Order-No.: \_\_\_\_\_

Quantity/

## Valve specification

				-	/		-		-			-	/		/		-		/		-				/			
	1	2	3		4		5		6		7	8		9		10		11		12		13		14	15	16		17

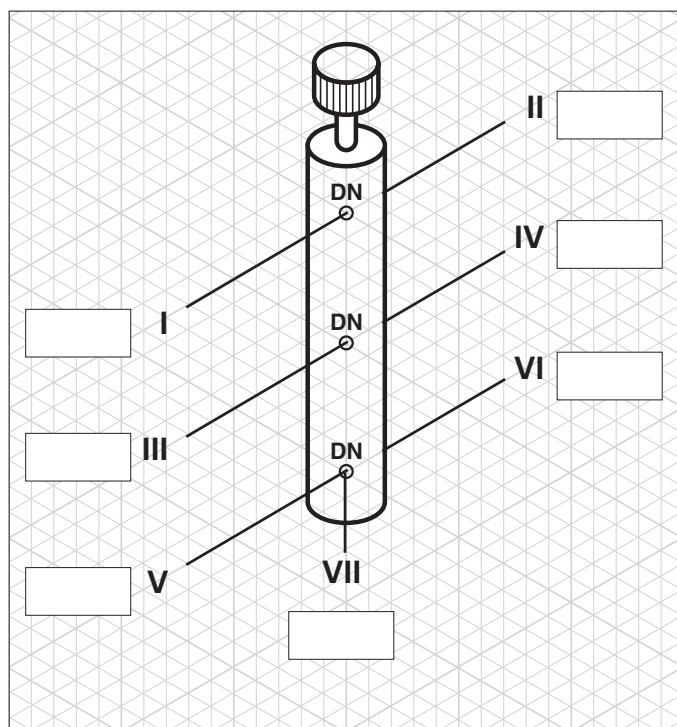
  

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	1	2	3		4		5		6		7	8		9		10		11		12		13		14	15	16		17

### Socket arrangement and connection variant



## Connection fittings

- |           |   |
|-----------|---|
| <b>TK</b> | VARIVENT® flange connection, groove flange at the housing |
| <b>TN</b> | VARIVENT® groove flange incl.O-ring, screws and nuts      |
| <b>TF</b> | VARIVENT® flange  |

CO Tri-clamp

- GK** Pipe union, DIN 11851, malepart at the housing  
**GO** Malepart SC, DIN 11851, incl. seal ring G  
**KO** Liner SD, DIN 11851, incl. groove nut

- ASK** Aseptic flange connection DIN 11864-2 (short)  
**NFK** Aseptic groove flange, DIN 11864-2 (short)  
**BFK** Aseptic collar flange, DIN 11864-2 (short)

- AVK** Aseptic union, DIN 11864-1 (short)  
**GSK** Aseptic malepart, DIN 11864-1 (short)  
**BSK** Aseptic colar socket, DIN 11864-1 (short)

- ASN** Aseptic flange connection, DIN 11864-2 (normal)  
**NFN** Aseptic groove flange, DIN 11864-2 (normal)  
**BFN** Aseptic collar flange, DIN 11864-2 (normal)

- AVN** Aseptic union, DIN 11864-1 (normal)  
**GSN** Aseptic malepart, DIN 11864-1 (normal)  
**BSN** Aseptic collar socket, DIN 11864-1 (normal)



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