

### Construction

The GEMÜ 638 motorized 2/2 way full bore diaphragm valve is fitted with a motor/control units made by AUMA.

### Features

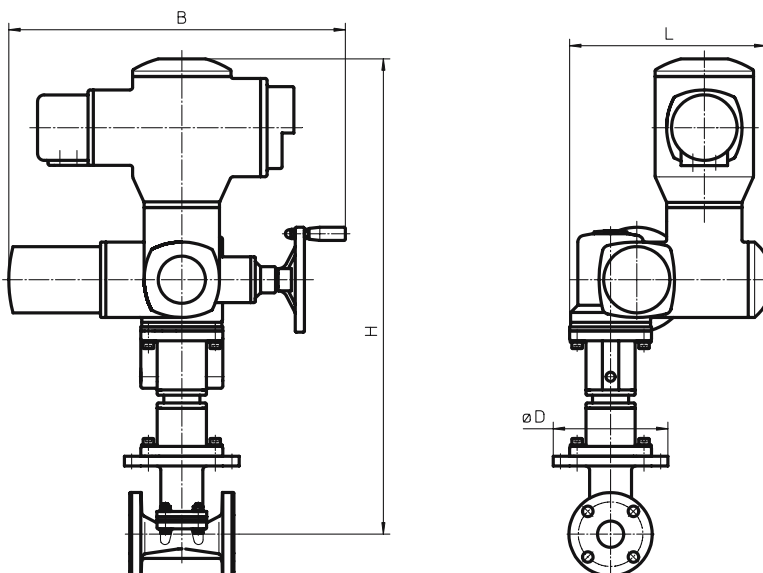
- Optional rubber lining particularly suitable for applications involving particulate media, e.g.:
  - Mining
  - Desulphurisation plants
  - Paper and woodpulp industries
  - Water treatment
  - Ceramics industry
  - Chemical and dyestuff industries
- Valve body and diaphragm available in various materials and designs
- Motorized actuators are available for Open/Close duty and for regulating duties, including various control units.
- No auxiliary air pressure supply required

### Advantages

- High mechanical stability
- High flow rate due to straight through flow
- Optional flow direction, will seal in either flow direction up to full working pressure
- Valve can be cleaned without disassembly of actuator
- Proven electric actuators and control units in modular design

Actuator dimensions [mm]

Diaphragm size	DN	B	H	L
40	25 - 40	514	726	300
65	50 - 65	514	779	300
100	80 - 100	514	894	300
150	125 - 150	514	1013	300



## Technical data

### Working medium

Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the body and diaphragm material.

Max. perm. temperature of working medium 100°C\*

\* depending on body and diaphragm material

### Ambient conditions

Max. ambient temperature 50° C

**For the technical data of the AUMA actuator, the control or regulating unit and the linear thrust unit please refer to AUMA's own technical data sheet.**

		Working pressure	Weight, approx.	K <sub>v</sub> value
Diaphragm size	DN	(bar)	(kg)	(m <sup>3</sup> /h)
40	25	7.0	39	35
	40		41	38
65	50	7.0	61	108
	65		62	114
100	80	6.0	79	284
	100		88	298
150	125	4.0	131	650
	150		139	680

All pressures are given as gauge pressures when applied upstream only.

### Coordination of actuator types, control and regulating units for the various nominal sizes

Diaphragm size	DN	638 Open/close actuator	638 Regulating actuator
40	25	LE12.1 (50) + SA07.1	LE12.1 (50) + SAR07.1
	40	LE12.1 (50) + SA07.1	LE12.1 (50) + SAR07.1
65	50	LE12.1 (50) + SA07.1	LE12.1 (50) + SAR07.1
	65	LE12.1 (50) + SA07.1	LE12.1 (50) + SAR07.1
100	80	LE25.1 (100) + SA07.5	LE25.1 (100) + SAR07.5
	100	LE25.1 (100) + SA07.5	LE25.1 (100) + SAR07.5
150	125	LE25.1 (100) + SA07.5	LE25.1 (100) + SAR07.5
	150	LE25.1 (100) + SA07.5	LE25.1 (100) + SAR07.5

LE 12.1 (50) = AUMA linear thrust unit with 50 mm stroke  
LE 25.1 (100) = AUMA linear thrust unit with 100 mm stroke

**The standard AUMA control unit used is the AM01.1.  
Other control units upon request!**

## Order data

Body configuration	Code
2/2 way	D

Valve body material		Code
EN-GJL-250	GG 25 (cast iron)	8
EN-GJL-250	GG 25 (cast iron) hard rubber lined	13
EN-GJL-250	GG 25 (cast iron) soft rubber lined	52

Connection	Code
Flanges EN 1092 / PN16 / form A (ex DIN 2501 / PN16 / form A) length EN 558-1, series 7 ISO 5752, basic series 7 (ex BS 5156)	53
Flanges ANSI class 125/150 FF length EN 558-2, series 7 ISO 5752, basic series 7 (ex BS 5156)	58

For overview of available valve bodies for GEMÜ 638 see page 6.

Diaphragm material		Code
CSM	Hypalon	1
NBR	Perbunan	2
IIR	Butyl	6
CR	Neoprene	8
EPDM		24

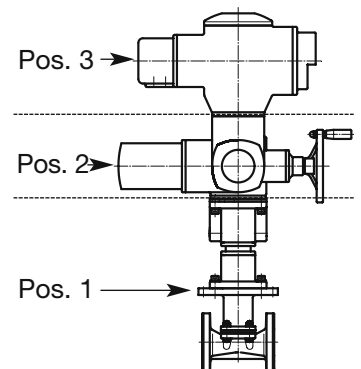
### Order data: The order must include 3 items!

**Item 1 Valve with adapter and suitable AUMA length unit**  
e.g. 638 80 D 52 13 14  
For details of AUMA length unit see AUMA's own technical documentation.

**Item 2 AUMA rotary actuator\***  
e.g. SA 07.1F1022D380/506822KN  
For details see AUMA's own technical documentation.

**Item 3 AUMA control unit\***  
Standard type AM01.1TP110/001 1110KC3F18E1  
For details see AUMA's own technical documentation.

\*Other types on request



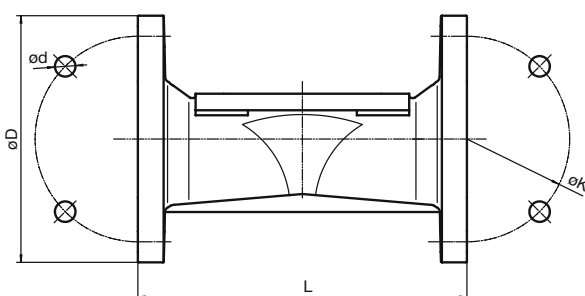
Order example for item 1	638	50	D	53	13	24		
Type	638							
Nominal size		50						
Body configuration (Code)			D					
Connection (Code)				53				
Valve body material (Code)					13			
Diaphragm material (Code)						24		
Voltage/Frequency (Code)								
Control unit (Code)								

Other connections, valve body materials, linings and diaphragm materials upon request

## Body dimensions

### Flanges, connection code 53, 58 [mm]

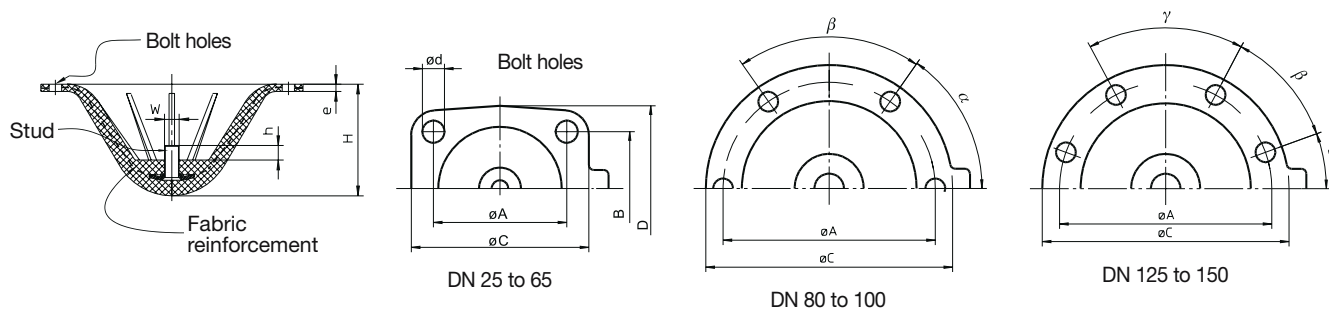
		Number of bolt holes	Connection code 53					Connection code 58				
DN	NPS		L		$\varnothing D$	$\varnothing K$	$\varnothing d$	L		$\varnothing D$	$\varnothing K$	$\varnothing d$
			Code 8	Code 13, 52				Code 8	Code 13, 52			
25	1"	4	127	127	115	85	14	127	127	108.0	79.2	16
40	1 1/2"	4	159	159	150	110	18	159	159	127.0	98.6	16
50	2"	4	191	191	165	125	18	191	191	152.4	120.7	19
65	2 1/2"	4	216	216	185	145	18	216	216	177.8	139.7	19
80	3"	8	254	254	200	160	18	254	254	190.5	152.4	19
100	4"	8	305	305	220	180	18	305	305	228.6	190.5	19
125	5"	8	356	366	250	210	18	356	366	254.0	215.9	22
150	6"	8	406	416	285	240	22	406	416	279.0	241.3	22



### Diaphragm dimensions

DN	NPS	$\varnothing A$	B	$\varnothing C$	D	d	e	h	W	H	$\alpha$	$\beta$	$\gamma$	Number of bolt holes
25	1"	64	51	90	70	9.0	5	8	1/4"	36	-	-	-	4
40	1 1/2"	64	51	90	70	9.0	5	8	1/4"	36	-	-	-	4
50	2"	101	82	159	128	13.5	6	10	5/16"	64	-	-	-	4
65	2 1/2"	101	82	159	128	13.5	6	10	5/16"	64	-	-	-	4
80	3"	175	-	223	-	13.5	6	12	5/16"	80	56°	34°	-	6
100	4"	175	-	223	-	13.5	6	12	5/16"	80	56°	34°	-	6
125	5"	255	-	287	-	13.5	8	16	5/8"	115	20°	40°	60°	8
150	6"	255	-	287	-	13.5	8	16	5/8"	115	20°	40°	60°	8

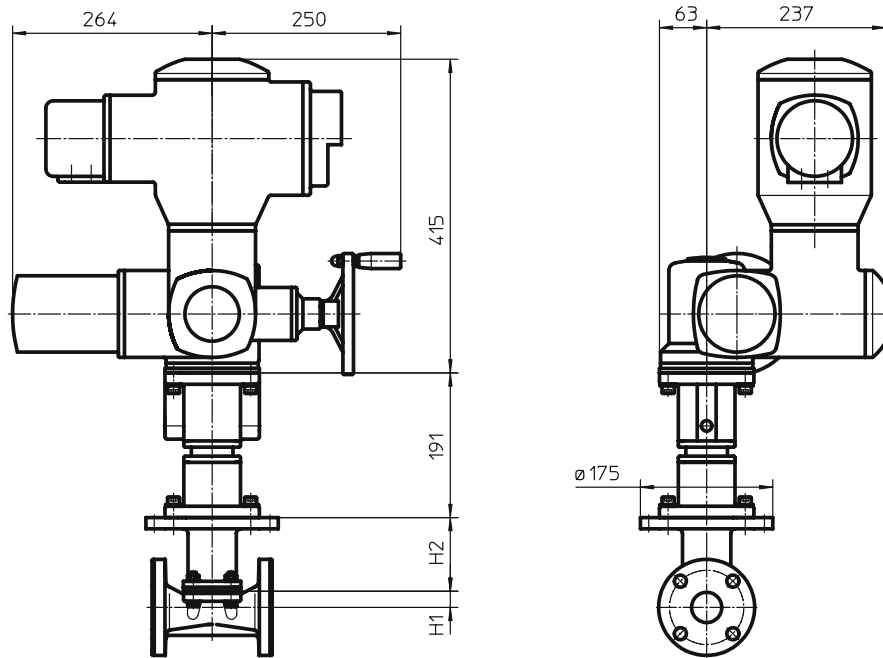
The thread of the diaphragm stud corresponds to Whitworth standard.



## Actuator dimensions

Actuator dimensions [mm]

Diaphragm size	DN	H1	H2
40	25 - 40	22	98
65	50 - 65	32	141
100	80 - 100	47	191
150	125 - 150	55	302



Mounting position: vertical, standing

The complete weight of the actuator must be supported by a suitable bracket

## Overview of valve bodies for GEMÜ 638

Connection code	53			58		
Material code	8	13	52	8	13	52
DN						
25	X	X	X	X	X	X
40	X	X	X	X	X	X
50	X	X	X	X	X	X
65	X	X	X	X	X	X
80	X	X	X	X	X	X
100	X	X	X	X	X	X
125	X	X	X	X	X	X
150	X	X	X	X	X	X

Technical data sheet

Should there be any doubts or misunderstandings, the German version of this data sheet is the authoritative document!

Subject to alteration · 10/2006 · 86269241



**GEMÜ**® VALVES, MEASUREMENT AND CONTROL SYSTEMS