GEMÜ R629 eSyLite

Motorized diaphragm valve

Features

- Motorized linear actuator for Open/Close applications
- Self-locking spindle actuator
- Safety shut-down integrated
- Standard optical position indicator and manual override
- Integrated emergency power supply module (optional)
- Electrical position indicator GEMÜ 1215 (optional)

Description

The GEMÜ R629 eSyLite 2/2-way diaphragm valve is motorized. It is available as an Open/Close version. An integrated optical position indicator is standard. The self-locking actuator holds its position in a stable manner in the event of power supply failure.

Technical specifications

- **Media temperature:** -10 to 80 °C
- **Ambient temperature:** -10 to 50 °C
- **Operating pressure :** 0 to 6 bar
- **Nominal sizes:** DN 12 to 50
- **Body configurations:** 2/2-way body
- **Connection types:** Flange I Flare I Solvent cement socket I Spigot I Threaded connection I Union end
- **Connection standards:** ANSI I ASTM I BS I DIN I EN I ISO I JIS
- **Body materials:** ABS I Inliner PP-H, grey / outliner PP, reinforced I Inliner PVDF/outliner PP, reinforced I PP, reinforced I PP-H, natural I PVC-U, grey I PVDF
- **Diaphragm materials:** EPDM I FKM I NBR I PTFE/EPDM
- **Supply voltage:** 24 V DC
- **Actuating speed:** max. 3 mm/s
- **Protection class:** IP 65
- **Conformities:** EAC I FDA

Technical data depends on the respective configuration

further information
webcode: GW-R629

Product description

Construction

Item	Name	Materials
1	Optical position indicator	PA 12
2	Manual override	
3	Motorized actuator	Reinforced polyamide
4	CONEXO actuator RFID chip (see Conexo information)	
5	Valve body	Inliner PP-H, grey / outliner PP, reinforced Inliner PVDF / outliner PP, reinforced PVC-U, grey ABS PP PP, reinforced PP-H, natural | PVDF
6	Diaphragm	EPDM, FKM, NBR, PTFE / EPDM
7	CONEXO diaphragm RFID chip (see Conexo information)	
8	CONEXO body RFID chip (see Conexo information)	
9	Electrical connection	

GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.

Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

For further information on GEMÜ CONEXO please visit:
www.gemu-group.com/conexo

Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

Availability

Availability of valve bodies

Spigot

MG	DN	Connection type code [1]				
		0	20	28	30	7X
		Material code [2]				
		1 , 71, 75	71, 75	20	1, 4	1, 4, 71, 75
10	**15**	-	-	X	-	-
20	**15**	X	X	-	X	X
	20	X	X	-	X	X
	25	X	X	-	X	X
25	**32**	X	X	-	X	X
40	**40**	X	X	-	X	X
	50	X	X	-	X	X

MG = diaphragm size, X = standard

1) **Connection type**
Code 0: Spigot DIN
Code 20: Spigot for IR butt welding
Code 28: Spigot for IR butt welding, BCF
Code 30: Spigot - inch, for welding or solvent cementing, dependent on body material
Code 7X: Body with threaded spigots for unions

2) **Valve body material**
Code 1: PVC-U, grey
Code 4: ABS
Code 20: PVDF
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced

Union end

MG	DN	Connection type code [1]									
		7			7R	33		3M	3T	78	
		Material code [2]									
		1	4, 71, 75	5, 20, N5	1	1	4	1	1	5, 20, N5	71, 75
10	**DN 15**	X	-	X	-	X	-	X	-	X	-
20	**DN 15**	X	X	-	X	X	X	X	X	-	X
	DN 20	X	X	-	X	X	X	X	X	-	X
	DN 25	X	X	-	X	X	X	X	X	-	X
25	**32**	X	X	-	X	X	X	X	X	-	X
40	**40**	X	X	-	X	X	X	X	X	-	X
	50	X	X	-	X	X	X	X	X	-	X

MG = diaphragm size
X = Standard

1) **Connection type**
Code 7: Union end with insert (socket) – DIN
Code 7R: Union end with insert (Rp threaded socket) - DIN
Code 33: Union end with inch insert - BS (socket)
Code 3M: Union end with inch insert – ASTM (socket)
Code 3T: Union end with JIS insert (socket)
Code 78: Union end with insert (for IR butt welding) – DIN

2) **Valve body material**
Code 1: PVC-U, grey
Code 4: ABS
Code 5: PP, reinforced
Code 20: PVDF
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced
Code N5: PP-H, natural

Threaded socket

MG	DN	Connection type code 1 [1]
		Material code 1, 5, 20 [2]
10	**DN 12**	X

MG = diaphragm size
X = Standard

1) **Connection type**
Code 1: Threaded socket DIN ISO 228

2) **Valve body material**
Code 1: PVC-U, grey
Code 5: PP, reinforced
Code 20: PVDF

Solvent cement socket

MG	DN	Connection type code 2 [1]
		Material code 1 [2]
10	**DN 12**	X

MG = diaphragm size
X = Standard

1) **Connection type**
Code 2: Solvent cement socket DIN

2) **Valve body material**
Code 1: PVC-U, grey

Flange

MG	DN	Connection type code [1]					
		4			39		
		Material code [2]					
		1	71	75	1	71	75
20	**DN 15**	X	X	X	X	X	X
	DN 20	X	X	X	X	X	X
	DN 25	X	X	X	X	X	X
25	**32**	X	X	X	X	X	X
40	**40**	X	X	X	X	X	X
	50	X	X	X	X	X	X

MG = diaphragm size
X = Standard

1) **Connection type**
Code 4: Flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1
Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

2) **Valve body material**
Code 1: PVC-U, grey
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced

Flare

MG	DN	Connection type code 75 [1]
		Material code N5 [2]
10	**DN 15**	X
	DN 20	X

MG = diaphragm size
X = Standard

1) **Connection type**
Code 75: Flare connection with PVDF union nut

2) **Valve body material**
Code N5: PP-H, natural

Availability of mounting plate

Material code [1]		
MG	DN	
10	**12**	X
	15	X
	20	X

Dimensions in mm, MG = diaphragm size

1) **Valve body material**
Code 20: PVDF
Code N5: PP-H, natural

Order data

Order codes

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

1 Type	Code
Diaphragm valve, electrically operated, plastic diaphragm valve	R629

2 DN	Code
DN 12	12
DN 15	15
DN 20	20
DN 25	25
DN 32	32
DN 40	40
DN 50	50

3 Body configuration	Code
2/2-way body	D

4 Connection type	Code
Spigot	
Spigot DIN	0
Spigot for IR butt welding	20
Spigot for IR butt welding, BCF	28
Spigot - inch, for welding or solvent cementing, dependent on body material	30
Body with threaded spigots for unions	7X
Union end	
Union end with insert (socket) – DIN	7
Union end with insert (Rp threaded socket) - DIN	7R
Union end with inch insert - BS (socket)	33
Union end with inch insert – ASTM (socket)	3M
Union end with JIS insert (socket)	3T
Union end with insert (for IR butt welding) – DIN	78
Threaded socket	
Threaded socket DIN ISO 228	1
Solvent cement socket	
Solvent cement socket DIN	2
Flange	
Flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1	4
Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D	39
Flare	
Flare connection with PVDF union nut	75

5 Valve body material	Code
PVC-U, grey	1
ABS	4

5 Valve body material	Code
PP, reinforced	5
PVDF	20
Inliner PP-H, grey, outliner PP, reinforced	71
Inliner PVDF/outliner PP, reinforced	75
PP-H, natural	N5

6 Diaphragm material	Code
Elastomer	
NBR	2
FKM	4
EPDM	29
PTFE	
PTFE/EPDM one-piece	54
PTFE/EPDM two-piece	5M
Note: The PTFE/EPDM diaphragm (code 5M) is available from diaphragm size 25.	

7 Voltage/Frequency	Code
24 V DC	C1

8 Control module	Code
ON/OFF actuator (economy)	A0
ON/OFF actuator (economy) emergency power supply module (NC)	A1
ON/OFF actuator (economy) emergency power supply module (NO)	A2
OPEN/CLOSE control with mounted GEMU 1215 position indicator	Z0
OPEN/CLOSE control with mounted GEMÜ 1215 position indicator emergency power supply module (NC)	Z1
OPEN/CLOSE control with mounted GEMÜ 1215 position indicator emergency power supply module (NO)	Z2

9 Actuator version	Code
Actuator size 1 diaphragm size 10	1C
Actuator size 1 diaphragm size 20	1E
Actuator size 1 diaphragm size 25	1F
Actuator size 3 diaphragm size 40	3H

10 Mounting plate	Code
With mounting plate	M
Without mounting plate	O
Standard	

Order example

Ordering option	Code	Description
1 Type	R629	Diaphragm valve, electrically operated, plastic diaphragm valve
2 DN	25	DN 25
3 Body configuration	D	2/2-way body
4 Connection type	7	Union end with insert (socket) – DIN
5 Valve body material	1	PVC-U, grey
6 Diaphragm material	29	EPDM
7 Voltage/Frequency	C1	24 V DC
8 Control module	A0	ON/OFF actuator (economy)
9 Actuator version	1E	Actuator size 1 diaphragm size 20
10 Mounting plate		Standard

Technical data

Medium

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.

The valve will seal in both flow directions up to full operating pressure (gauge pressure).

Temperature

Media temperature:

Valve body material	Media temperature
PVC-U, grey (code 1)	10 — 60 °C
ABS (code 4)	-10 — 60 °C
PP, reinforced (code 5)	5 – 80 °C
PVDF (code 20)	-10 — 80 °C
Inliner PP-H grey / outliner PP, reinforced (code 71)	5 – 80 °C
Inliner PVDF / outliner PP, reinforced (code 75)	-10 — 80 °C
PP-H, natural (code N5)	5 – 80 °C

Ambient temperature:

Valve body material	Ambient temperature
PVC-U, grey (code 1)	10 — 50 °C
ABS (code 4)	-10 — 50 °C
PP, reinforced (code 5)	5 — 50 °C
PVDF (code 20)	-10 — 50 °C
Inliner PP-H grey / outliner PP, reinforced (code 71)	5 — 50 °C
Inliner PVDF / outliner PP, reinforced (code 75)	-5 — 50 °C
PP-H, natural (code N5)	5 — 50 °C

If the emergency power module is used (control module code A1, A2, Z1, Z2), the maximum ambient temperature is reduced to 40 °C.

Pressure

Operating pressure:

0 — 6 bar

All pressures are gauge pressures. Operating pressure values were determined with static operating pressure applied on one side of a closed valve. Sealing at the valve seat and atmospheric sealing is ensured for the given values.

Information on operating pressures applied on both sides and for high purity media on request.

The operating pressures apply at room temperature. In case of deviating temperatures, observe the pressure / temperature correlation.

Pressure rating:

PN 10

Pressure/temperature correlation:

Valve body material		Temperatures in °C (valve body)										
Materials	Code	-10	0	5	10	20	30	40	50	60	70	80
PVC-U	**1**	-	-	-	6.0	6.0	6.0	6.0	3.5	1.5	-	-
ABS	**4**	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0	2.0	-	-
PP-H	**5**	-	-	6.0	6.0	6.0	6.0	6.0	5.5	4.0	2.7	1.5
PP-H	**71**	-	-	6.0	6.0	6.0	6.0	6.0	5.5	4.0	2.7	1.5
PVDF	**20**	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.4	4.7
PVDF	**75**	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.4	4.7
PP-H, natural	**N5**	-	-	6.0	6.0	6.0	6.0	6.0	5.5	4.0	2.7	1.5

The pressure rating (PN) depends on the diaphragm size.
Data for extended temperature ranges on request. Please note that the ambient temperature and media temperature generate a combined temperature at the valve body which must not exceed the above values.

Leakage rate:

Leakage rate A to P11/P12 EN 12266-1

Kv values:

MG	Nominal size	Kv value
MG 10	**DN 12**	2.8
	DN 15	3.5
	DN 20	3.5
MG 20	**DN 15**	6.0
	DN 20	10.0
	DN 25	12.0
MG 25	**DN 32**	20.0
MG 40	**DN 40**	42.0
	DN 50	46.0

Kv values in m^3/h
MG = diaphragm size
Kv values determined acc.to DIN EN 60534 standard, inlet pressure 5 bar, Δp 1 bar, PVC-U valve body and soft elastomer diaphragm.
The Kv values for other product configurations (e.g. other diaphragm or body materials) may differ. In general, all diaphragms are subject to the influences of pressure, temperature, the process and their tightening torques. Therefore the Kv values may exceed the tolerance limits of the standard.
The Kv value curve (Kv value dependent on valve stroke) can vary depending on the diaphragm material and duration of use.

Product compliance

Machinery Directive: 2006/42/EC

Pressure Equipment Directive: 2014/68/EU

Food: FDA*

* depending on version and / or operating parameters

EMC Directive: 2014/30/EU

Technical standards used:

Interference emission	DIN EN 61000-6-4 (Sep. 2011) Interference emission class: Class A Interference emission group: Group 1
Interference resistance	DIN EN 61000-6-2 (Nov. 2019)

Materials

Materials:

Diaphragm material	O-ring material
PTFE	FPM
NBR	EPDM
FPM	FPM
EPDM	EPDM

Mechanical data

Protection class: IP 65 acc. to EN 60529

Actuating speed: Max. 3 mm/s
Observe the angle of rotation to achieve an installation for optimized draining

Weight:

Actuator

MG 10: 0.8 kg
MG 20: 0.88 kg
MG 25: 0.94 kg
MG 40: 1.4 kg

Valve body

MG	DN	Spigot			Union end				Flange	Threaded socket	Solvent cement socket	Flare
		Connection type code										
		0, 30	20	28	7, 7R	33	3M, 3T	78	4, 39	1	2	75
10	**12**	-	-	-	-	-	-	-	-	0.08	0.06	-
	15	-	-	0.13	0.18	0.13	-	0.20	-	-	-	0.08
	20	-	-	-	-	-	-	-	-	-	-	0.125
20	**15**	0.12	0.10	-	0.17	0.24	0.26	0.27	0.67	-	-	-
	20	0.13	0.12	-	0.21	0.28	0.30	0.36	0.84	-	-	-
	25	0.16	0.14	-	0.26	0.33	0.38	0.37	1.28	-	-	-
25	**32**	0.22	0.18	-	0.40	0.70	0.73	0.63	1.89	-	-	-
40	**40**	0.50	0.40	-	0.73	0.83	0.93	1.13	2.36	-	-	-
	50	0.57	0.47	-	1.00	1.40	1.50	1.60	3.08	-	-	-

MG = diaphragm size, weight in kg

Installation position: Optional

Flow direction: Optional

Mechanical environmental conditions: Class 4M8 acc. to EN 60721-3-4:1998

Vibration: 5g acc. to IEC 60068-2-6 Test Fc

Shock: 25g acc. to 60068-2-27 Test Ea

Duty cycle and service life

Service life: Class A acc. to EN 15714-2
Minimum 100,000 switching cycles at room temperature and permissible duty cycle.

Duty cycle: max. 30% duty

Electrical data

Supply voltage:	24 V DC Tolerance ± 10 %
Operating time:	MG 10: 2.5 s MG 20: 3.5 s MG 25: 4.0 s MG 40: 4.5 s
Close tight current / rated current:	MG 10: 0.5 A MG 20: 1.4 A MG 25: 1.3 A MG 40: 2.3 A
Starting current / maximum current:	MG 10: approx. 2.4 A MG 20: approx. 2.4 A MG 25: approx. 2.4 A MG 40: approx. 4.5 A
Standby current consumption:	approx. 10 mA

Digital input signals

Input voltage:	max. 30 V DC ≥ 56 kΩ
High level:	≥ 18 V DC
Low level:	≤ 5 V DC

Emergency power supply module

Charging current:	MG 10, MG 20, MG 25: max. 0.16 A MG 40: 0.32 A
Charging time:	approx. 13 min
Service life:	Guide value at 25 °C ambient temperature, approx. 3 years

Electrical connection

Position of the connectors

Electrical connection

Connection X1

7-pin plug, Binder, type 693

Pin	Signal name
1	24 V supply voltage
2	GND
3	Digital input OPEN
4	Digital input CLOSED
5	n.c.
6	n.c.
7	n.c.

Preferred direction when both digital inputs are present	
Ordering option Control module	Preferred direction
A0, Z0	OPEN
A1, Z1	CLOSED
A2, Z2	OPEN

Dimensions

Actuator dimensions without position indicator

MG	DN	A	A1	B	B1	B2	B3
10	**12 - 20**	192.0	63.0	59.5	134.5	115.0	82.0
20	**15 - 25**	195.0	66.0	59.5	134.5	115.0	82.0
25	**32**	204.0	75.0	59.5	134.5	115.0	82.0
40	**40, 50**	228.0	91.0	80.0	167.0	147.5	94.5

Dimensions in mm
MG = diaphragm size
* CT = A + H1 (see body dimensions)

Actuator dimensions with GEMÜ 1215 position indicator

MG	DN	A	AZ1	AZ2	BZ1	BZ2
10	**12 - 20**	237.0	72.0	61.0	30.0	40.0
20	**15 - 25**	240.0	72.0	61.0	30.0	40.0
25	**32**	249.0	72.0	61.0	30.0	40.0
40	**40, 50**	273.0	72.0	61.0	30.0	40.0

Dimensions in mm
MG = diaphragm size

Body dimensions

Spigot DIN / inch (code 0, 30)

Connection type spigot DIN (code 0) [1], body material PVC-U (code 1), inliner/outliner (code 71, 75) [2]

MG	DN	NPS	c		ød	H		H1	L
			Material			Material			
			1	71, 75		1	71, 75		
20	**15**	**1/2"**	16.0	18.0	20.0	36.0	36.0	10.0	124.0
	20	**3/4"**	19.0	19.0	25.0	38.0	38.0	12.0	144.0
	25	**1"**	22.0	22.0	32.0	39.0	39.0	13.0	154.0
25	**32**	**1¼"**	32.0	32.0	40.0	41.0	41.0	15.0	174.0
40	**40**	**1½"**	35.0	26.0	50.0	63.2	63.2	23.2	194.0
	50	**2"**	38.0	33.0	63.0	63.2	63.2	23.2	224.0

Connection type spigot - inch (code 30) [1], body material PVC-U (code 1), ABS (code 4) [2]

MG	DN	NPS	c	ød	H	H1	L
20	**15**	**1/2"**	24.0	21.4	36.0	10.0	141.0
	20	**3/4"**	27.0	26.7	38.0	12.0	144.0
	25	**1"**	30.0	33.6	39.0	13.0	154.0
25	**32**	**1¼"**	33.0	42.2	41.0	15.0	174.0
40	**40**	**1½"**	35.0	48.3	63.2	23.2	194.0
	50	**2"**	40.0	60.3	63.2	23.2	224.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 0: Spigot DIN
Code 30: Spigot - inch, for welding or solvent cementing, dependent on body material

2) **Valve body material**
Code 1: PVC-U, grey
Code 4: ABS
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced

Spigot IR (code 20)

Connection type spigot IR (code 20) [1], body material inliner/outliner (code 71, 75) [2]

MG	DN	NPS	c	ød	H	H1	L	s	
								Material	
								71	75
20	**15**	**1/2"**	33.0	20.0	36.0	10.0	154.0	1.9	1.9
	20	**3/4"**	33.0	25.0	38.0	12.0	154.0	2.3	1.9
	25	**1"**	33.0	32.0	39.0	13.0	154.0	2.9	2.4
25	**32**	**1¼"**	33.0	40.0	41.0	15.0	194.0	3.7	2.4
40	**40**	**1½"**	33.0	50.0	63.2	23.2	194.0	4.6	3.0
	50	**2"**	33.0	63.0	63.2	23.2	224.0	5.8	3.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 20: Spigot for IR butt welding

2) **Valve body material**
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced

Spigot (code 28)

Connection type spigot (code 28) [1], body material PVDF (code 20) [2]

MG	DN	NPS	c	c1	ød	H	H1	L	s
10	**15**	**1/2"**	31.0	37.0	20.0	41.0	16.0	134.0	1.9

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 28: Spigot for IR butt welding, BCF

2) **Valve body material**
Code 20: PVDF

Union end DIN (code 7)

Connection type union end DIN (code 7) [1], body material PVC-U (code 1), PP (code 5), PVDF (code 20), PP-H (code N5) [2], diaphragm size 10

MG	DN	NPS	ød	øD	H		H1		L1	L2		R
					Material		Material			Material		
					1, 20	5, N5	1, 20	5, N5		1, 20	5, N5	
10	**15**	**1/2"**	20.0	43.0	30.0	41.0	15.0	16.0	90.0	128.0	125.0	G 1

Connection type union end DIN (code 7) [1], body material PVC-U (code 1), ABS (code 4), inliner/outliner (code 71, 75) [2], diaphragm size 20 – 40

MG	DN	NPS	ød	øD	H	H1	L1	L2				R
								Material				
								1	4	71	75	
20	**15**	**1/2"**	20.0	43.0	36.0	10.0	108.0	146.0	150.0	143.0	146.0	G 1
	20	**3/4"**	25.0	53.0	38.0	12.0	108.0	152.0	156.0	146.0	150.0	G 1¼
	25	**1"**	32.0	60.0	39.0	13.0	116.0	166.0	170.0	158.0	162.0	G 1½
25	**32**	**1¼"**	40.0	74.0	41.0	15.0	134.0	192.0	196.0	181.0	184.0	G 2
40	**40**	**1½"**	50.0	83.0	63.2	23.2	154.0	222.0	222.0	207.0	210.0	G 2¼
	50	**2"**	63.0	103.0	63.2	23.2	184.0	266.0	266.0	245.0	248.0	G 2¾

Dimensions in mm
MG = diaphragm size

1) **Connection type**
   Code 7: Union end with insert (socket) – DIN

2) **Valve body material**
   Code 1: PVC-U, grey
   Code 4: ABS
   Code 5: PP, reinforced
   Code 20: PVDF
   Code 71: Inliner PP-H, grey, outliner PP, reinforced
   Code 75: Inliner PVDF/outliner PP, reinforced
   Code N5: PP-H, natural

Union end inch (code 33, 3M, 3T)

Connection type union end inch (code 33) [1], body material PVC-U (code 1) [2], diaphragm size 10

MG	DN	NPS	ød	øD	H	H1	L1	L2	R
10	**15**	**1/2"**	21.4	43.0	30.0	15.0	90.0	128.0	G1

Connection type union end inch (code 33, 3M, 3T) [1], body material PVC-U (code 1) [2], diaphragm sizes 20 - 40

MG	DN	NPS	ød			øD		H	H1	L1	L2			R	
			Connection type								Connection type				
			33	3M	3T	33, 3M	3T				33	3M	3T	33, 3M	3T
20	**15**	**1/2"**	21.4	21.4	22.0	43.0	53.0 *	36.0	10.0	108.0	146.0	158.0	152.0	G 1	G 1¼ *
	20	**3/4"**	26.8	26.7	26.0	53.0	53.0	38.0	12.0	108.0	152.0	164.0	152.0	G 1¼	G 1¼
	25	**1"**	33.6	33.5	32.0	60.0	60.0	39.0	13.0	116.0	166.0	180.0	166.0	G 1½	G 1½
25	**32**	**1¼"**	42.3	42.2	38.0	74.0	74.0	41.0	15.0	134.0	192.0	204.0	192.0	G 2	G 2
40	**40**	**1½"**	48.3	48.3	48.0	83.0	83.0	63.2	23.2	154.0	222.0	230.0	222.0	G 2¼	G 2¼
	50	**2"**	60.4	60.4	60.0	103.0	103.0	63.2	23.2	184.0	264.0	266.0	266.0	G 2¾	G 2¾

Connection type BS (code 33) [1], body material ABS (code 4) [2]

MG	DN	NPS	ød	øD	H	H1	L1	L2	R
20	**15**	**1/2"**	21.4	43.0	36.0	10.0	108.0	150.0	G 1
	20	**3/4"**	26.8	53.0	38.0	12.0	108.0	156.0	G 1¼
	25	**1"**	33.6	60.0	39.0	13.0	116.0	170.0	G 1½
25	**32**	**1¼"**	42.3	74.0	41.0	15.0	134.0	198.0	G 2
40	**40**	**1½"**	48.3	83.0	63.2	23.2	154.0	220.0	G 2¼
	50	**2"**	60.4	103.0	63.2	23.2	184.0	264.0	G 2¾

Dimensions in mm
MG = diaphragm size

* Insert requires valve body DN 20

1) **Connection type**
   Code 33: Union end with inch insert - BS (socket)
   Code 3M: Union end with inch insert – ASTM (socket)
   Code 3T: Union end with JIS insert (socket)

2) **Valve body material**
   Code 1: PVC-U, grey
   Code 4: ABS

Union end DIN, IR butt welding (code 78)

Connection type union end DIN, IR butt welding (code 78) [1], body materials PP (code 5), PVDF (code 20), PP-H (code N5) [2]

MG	DN	NPS	c	ød	øD	H		H1		L1	L2	R	s
						Material		Material					
						5	20, N5	5	20, N5				
10	**15**	**1/2"**	36.0	20.0	42.0	30.0	41.0	15.0	16.0	90.0	196.0	G 1	1.9

Connection type union end DIN, IR butt welding (code 78) [1], body material inliner/outliner (code 71, 75) [2]

MG	DN	NPS	c	ød	øD	H	H1	L1	L2	R	s	
											Material	
											71	75
20	**15**	**1/2"**	36.0	20.0	43.0	36.0	10.0	108.0	214.0	G 1	1.9	1.9
	20	**3/4"**	37.0	25.0	53.0	38.0	12.0	108.0	220.0	G 1¼	2.3	1.9
	25	**1"**	39.0	32.0	60.0	39.0	13.0	116.0	234.0	G 1½	2.9	2.4
25	**32**	**1¼"**	39.0	40.0	74.0	41.0	15.0	134.0	258.0	G 2	3.7	2.4
40	**40**	**1½"**	43.0	50.0	83.0	63.2	23.2	154.0	284.0	G 2¼	4.6	3.0
	50	**2"**	43.0	63.0	103.0	63.2	23.2	184.0	320.0	G 2¾	5.8	3.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 78: Union end with insert (for IR butt welding) – DIN

2) **Valve body material**
Code 5: PP, reinforced
Code 20: PVDF
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced
Code N5: PP-H, natural

Union end Rp (code 7R)

Connection type union end Rp (code 7R) [1], body material PVC-U (code 1) [2]

MG	DN	NPS	øD	H	H1	L1	L2	R	Rp
20	**15**	**1/2"**	43.0	36.0	10.0	108.0	146.0	G 1	1/2
	20	**3/4"**	53.0	38.0	12.0	108.0	152.0	G 1¼	3/4
	25	**1"**	60.0	39.0	13.0	116.0	166.0	G 1½	1
25	**32**	**1¼"**	74.0	41.0	15.0	134.0	192.0	G 2	1¼
40	**40**	**1½"**	83.0	63.2	23.2	154.0	222.0	G 2¼	1½
	50	**2"**	103.0	63.2	23.2	184.0	266.0	G 2¾	2

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 7R: Union end with insert (Rp threaded socket) - DIN

2) **Valve body material**
Code 1: PVC-U, grey

Threaded socket (code 1)

Connection type threaded socket (code 1) [1], body materials PVC-U (code 1), PP (code 5), PVDF (code 20) [2]

MG	DN	NPS	H		H1	L	R	t
			Material					
			1, 5	20				
10	**12**	**1/2"**	27.5	31.5	12.5	55.0	G3/8	13.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 1: Threaded socket DIN ISO 228

2) **Valve body material**
Code 1: PVC-U, grey
Code 5: PP, reinforced
Code 20: PVDF

Solvent cement socket (code 2)

Connection type solvent cement socket (code 2) [1], body material PVC-U (code 1) [2]

MG	DN	NPS	ø D	H	H1	L	t
10	**12**	**1/2"**	16.0	27.5	12.5	55.0	13.0

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 2: Solvent cement socket DIN

2) **Valve body material**
Code 1: PVC-U, grey

Flange EN (code 4)

Connection type flange EN (code 4) [1], body materials PVC-U (code 1) [2]

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	**15**	**1/2"**	34.0	95.0	130.0	36.0	10.0	65.0	14.0	4
	20	**3/4"**	41.0	105.0	150.0	38.0	12.0	75.0	14.0	4
	25	**1"**	50.0	115.0	160.0	39.0	13.0	85.0	14.0	4
25	**32**	**1¼"**	61.0	140.0	180.0	41.0	15.0	100.0	18.0	4
40	**40**	**1½"**	73.0	150.0	200.0	63.2	23.2	110.0	18.0	4
	50	**2"**	90.0	165.0	230.0	63.2	23.2	125.0	18.0	4

Connection type flange EN (code 4) [1], body material inliner/outliner (code 71, 75) [2]

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	**15**	**1/2"**	45.0	95.0	130.0	36.0	10.0	65.0	14.0	4
	20	**3/4"**	58.0	105.0	150.0	38.0	12.0	75.0	14.0	4
	25	**1"**	68.0	115.0	160.0	39.0	13.0	85.0	14.0	4
25	**32**	**1¼"**	78.0	140.0	180.0	41.0	15.0	100.0	18.0	4
40	**40**	**1½"**	88.0	150.0	200.0	63.2	23.2	110.0	18.0	4
	50	**2"**	102.0	165.0	230.0	63.2	23.2	125.0	18.0	4

Dimensions in mm
MG = diaphragm size
n = number of bolts

1) **Connection type**
Code 4: Flange EN 1092, PN 10, form B, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1

2) **Valve body material**
Code 1: PVC-U, grey
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced

Flange ANSI (code 39)

Connection type flange ANSI (code 39) [1], body material PVC-U (code 1) [2]

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	**15**	**1/2"**	34.0	95.0	130.0	36.0	10.0	60.0	16.0	4
	20	**3/4"**	41.0	105.0	150.0	38.0	12.0	70.0	16.0	4
	25	**1"**	50.0	115.0	160.0	39.0	13.0	79.0	16.0	4
25	**32**	**1¼"**	61.0	140.0	180.0	41.0	15.0	89.0	16.0	4
40	**40**	**1½"**	73.0	150.0	200.0	63.2	23.2	98.0	16.0	4
	50	**2"**	90.0	165.0	230.0	63.2	23.2	121.0	19.0	4

Connection type flange ANSI (code 39) [1], body material inliner/outliner (code 71, 75) [2]

MG	DN	NPS	ød	øD	FTF	H	H1	øk	øL	n
20	**15**	**1/2"**	45.0	95.0	130.0	36.0	10.0	60.0	16.0	4
	20	**3/4"**	54.0	105.0	150.0	38.0	12.0	70.0	16.0	4
	25	**1"**	63.0	115.0	160.0	39.0	13.0	79.0	16.0	4
25	**32**	**1¼"**	73.0	140.0	180.0	41.0	15.0	89.0	16.0	4
40	**40**	**1½"**	82.0	150.0	200.0	63.2	23.2	98.0	16.0	4
	50	**2"**	102.0	165.0	230.0	63.2	23.2	121.0	19.0	4

Dimensions in mm
MG = diaphragm size
n = number of bolts

1) **Connection type**
Code 39: Flange ANSI Class 125/150 RF, face-to-face dimension FTF EN 558 series 1, ISO 5752, basic series 1, length only for body configuration D

2) **Valve body material**
Code 1: PVC-U, grey
Code 71: Inliner PP-H, grey, outliner PP, reinforced
Code 75: Inliner PVDF/outliner PP, reinforced

Flare (code 75)

Connection type flare (code 75) [1], body material PP-H (code N5) [2]

MG	DN	NPS	øD	H	H1	L	N1	N2	øN3
10	**15**	**1/2"**	26.5	38.1	10.0	132.0	40.0	62.0	5.5
	20	**3/4"**	26.5	44.5	15.0	134.0	40.0	62.0	5.5

Dimensions in mm
MG = diaphragm size

1) **Connection type**
Code 75: Flare connection with PVDF union nut

2) **Valve body material**
Code N5: PP-H, natural

Valve body mounting

MG 10

MG 20, MG 25, MG 40

Diaphragm size	DN	M	f
10	**10 - 20**	M5	35.0
20	**15 - 25**	M6	25.0
25	**32**	M6	25.0
40	**40, 50**	M8	44.5

Dimensions in mm
MG = diaphragm size

Mounting plate

MG	DN	HM
10	**12**	5.0
	15	4.5
	20	4.5

Dimensions in mm
MG = diaphragm size

Accessories

GEMÜ 1041

Mounting and compensating plate

GEMÜ 1041 is a mounting and compensating plate which serves to mount and align GEMÜ plastic diaphragm valves with union ends.

GEMÜ 1215

Electrical position indicator

The GEMÜ 1215 electrical position indicator is suitable for mounting to pneumatically operated linear actuators. The position (end position open) of the valve spindle is reliably detected and fed back electronically by the operating bush with a microswitch.

Ordering information

The product cannot be ordered later. It must be selected as order option "Control module" (see order data) when ordering.

GEMÜ 1218

Connector

The GEMÜ 1218 is a connector (cable socket / cable plug), 7-pin. Straight and/or 90° angled plug type.

Ordering information

GEMÜ 1218 Binder connector			
Connection X1 – supply voltage, relay outputs			
Binder plug	468/eSy series mating connector	Terminal compartment/ screws, 7-pin	88220649
		Terminal compartment/ screws, 7-pin, 90°	88377714 [1)]
		Terminal compartment/ screws, 7-pin, 90°, fitted with a 2 metre cable set	88770522

1) provided in the scope of delivery

GEMÜ 1573

Switching power supply unit

The GEMÜ 1573 switching power supply unit converts unstable input voltages from 100 to 240 V AC into a continuous DC voltage. It can be used as an accessory for valves with motorized actuators e. g. GEMÜ eSyLite, eSyStep und eSyDrive and for additional devices with a 24 V DC power supply. Different power levels, output currents and a 48 V DC version for servoDrive actuators are available.

Ordering information

GEMÜ 1573 switching power supply unit			
Input voltage	Output voltage	Output current	Item number
100 - 240 V AC	24 V DC	5 A	88660400
		10 A	88660401

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