

DIAPHRAGM FEEDING PUMPS



OVERVIEW

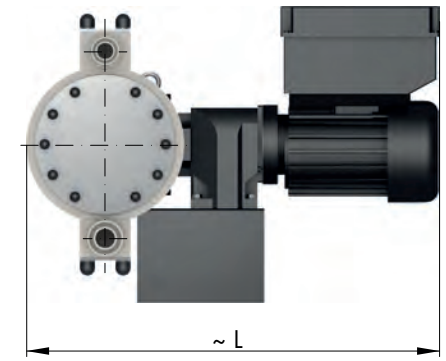
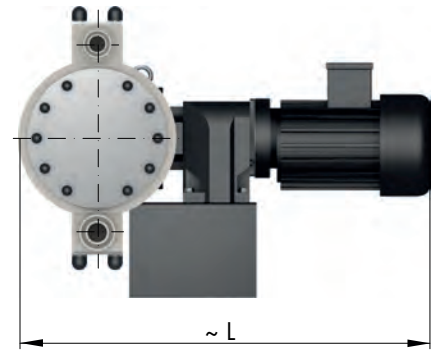
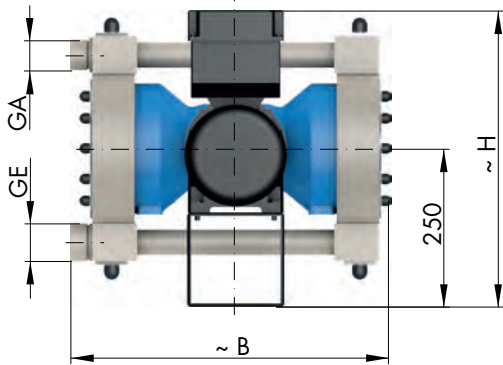
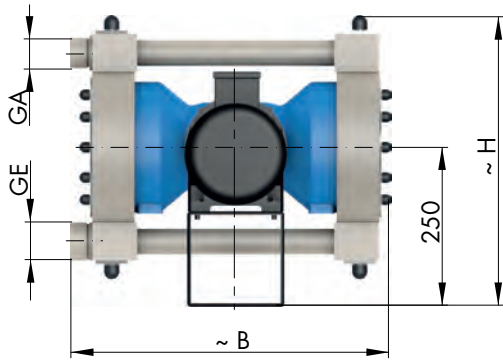
- Safe to run dry
- Leakage free
- Low-maintenance
- Low operating costs
- High-quality materials
- User-friendly
- Integrateable in automatic processes
- Manual stroke frequency adjustment (Type ZXRI)
- Compact design
- Robust, metallic drive housing

TECHNICAL DATA

PUMP DATA			ZX..411.3-2200e		ZX..411.3-2600e		ZX..411.3-3100e	
			ZXM	ZXR...	ZXM	ZXR..	ZXM	ZXR...
Permissible pressure p_{2max} at the pump outlet	bar		4					
Nominal capacity QN at p_{2max}	l/h	50 Hz	2.200	230-2.200	2.600	230-2.600	3.100	230-3.100
		60 Hz	2.640	230-2.200	3.120	230-2.600	–	230-3.100
Max. suction height	mWC	ZX...(e)	8					
		ZX...						
Min./max. permissible pressure at the pump inlet	$p_{1min/max}$ bar	ZX...(e)	-0,8/0					
		ZX...						
Recommended nominal diameter DN of the connecting pipes	mm	Inlet	32					
		Outlet	25					
Nominal stroke frequency	1/min	50 Hz	92	84	103	110	128	123
		60 Hz	110	–	123	110	–	123
Weight approx.	kg	plastic	67	72	72	75	73	76
		stainless steel	95	100	100	107	106	109

ELECTRICAL DATA		ZXM 411.3-... e	ZXRF 411.3-... e	ZXRI 411.3-... e
Power consumption	kW	0,75	1,1	1,1
Voltage	V	230/400V 50Hz, 460V 60Hz		
Frequency	Hz	50/60		
Protection category	IP	65	65	55

DIMENSIONS



	GE	GA	▶			B	L	H	▶		
ZXM... / ZXRF 411.3-2200e	G2	G1½	PVC, PP, PVDF	525	589	506	PP-GFK, PVDF-GFK	504	603	457	
ZXM... / ZXRF 411.3-2600e	G2	G1½		525	589	506		504	603	457	
ZXM... / ZXRF 411.3-3100e	G2	G1½		525	589	506		504	603	457	
ZXRI 411.3-2200e	G2	G1½		525	634	506		504	648	459	
ZXRI 411.3-2600e	G2	G1½		525	634	506		504	648	459	
ZXRI 411.3-3100e	G2	G1½		525	634	506		504	648	459	

CHARACTERISTIC CURVES

COMING SOON

DIAPHRAGM FEEDING PUMPS

BASIC DESIGNS

PP

Pump body **PP**
 Valves **PP-FRP**
 Valve balls **PTFE**
 Diaphragm **PTFE-faced**

Type	Valve seals			
	EPDM Article-No.	Price (EUR)	FPM Article-No.	Price (EUR)
ZXM411.3-2200e	16019656	☉	16010329	☉
ZXM411.3-2600e	16023879	☉	16023880	☉
ZXM411.3-3100e	15002457	☉	16009886	☉
ZXRI411.3-2200e	16010928	☉	16010596	☉
ZXRI411.3-2600e	16014138	☉	16021622	☉
ZXRI411.3-3100e	16009648	☉	16017716	☉

PVDF

Pump body **PVDF**
 Valves **PVDF-FRP**
 Valve balls **PTFE**
 Diaphragm **PTFE-faced**

Type	Valve seals	
	FEP-covered Article-No.	Price (EUR)
ZXM 411.3-2200e	☉	☉
ZXM 411.3-2600e	☉	☉
ZXM 411.3-3100e	☉	☉
ZXRI 411.3-2200e	☉	☉
ZXRI 411.3-2600e	☉	☉
ZXRI 411.3-3100e	☉	☉

PVC-U

Pump body **PVC-U**
 Valves **PVC-U**
 Valve balls **PTFE**
 Diaphragm **PTFE-faced**

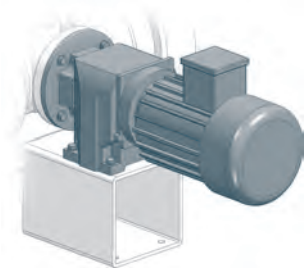
Type	Valve seals			
	EPDM Article-No.	Price (EUR)	FPM Article-No.	Price (EUR)
ZXM411.3-2200e	16023563	☉	16023881	☉
ZXM411.3-2600e	16023882	☉	16023882	☉
ZXM411.3-3100e	16012761	☉	16012761	☉
ZXRI411.3-2200e	16012775	☉	16009368	☉
ZXRI411.3-2600e	16023506	☉	16018788	☉
ZXRI411.3-3100e	16018059	☉	16012782	☉

STAINLESS STEEL

Pump body **1.4571**
 Valves **1.4571/1.4581**
 Valve balls **1.4401**
 Diaphragm **PTFE-faced**

Type	Valve seals	
	FEP-covered Article-No.	Price (EUR)
ZXM 411.3-2200e	16023884	☉
ZXM 411.3-2600e	16023885	☉
ZXM 411.3-3100e	16010746	☉
ZXRI 411.3-2200e	16010284	☉
ZXRI 411.3-2600e	16023886	☉
ZXRI 411.3-3100e	16013679	☉

OPTIONS



Drive motor

- Please note: If one or several options 'drive motor' are required to fix the add. price of the drive, the calculation will be as follows: 'add. price special drive' plus the single options of the drive.
- Surcharge and availability must be requested from **sera**.

Surcharge special drive

Surcharge (EUR)

(all types)

Special voltage	ZXM 411.3-...	Ⓞ
	ZXRI 411.3-...	Ⓞ
Enclosure IP65	ZXM 411.3-...	▲
	ZXRI 411.3-...	Ⓞ
Protection roof	ZXM 411.3-...	▲
	ZXRI 411.3-...	Ⓞ
VIK design	ZXM 411.3-...	▲
	ZXRI 411.3-...	Ⓞ
II2G EExe II T3 (acc. to ATEX95)	ZXM 411.3-...	▲
	ZXRI 411.3-...	×
II2G EExe II T4 (acc. to ATEX95)	ZXM 411.3-...	Ⓞ
	ZXRI 411.3-...	×

Drives for frequency converter operation

with PTC resistor, 5-50/60Hz	ZXM 411.3-...	▲
	ZXRI 411.3-...	●
with PTC resistor, 5-50/60Hz II2G EExde II C T4 acc. to ATEX95	ZXM 411.3-...	Ⓞ
	ZXRI 411.3-...	×

Diaphragm monitoring

Diaphragm rupture electrode, conductive, mounted on pump
(Evaluation via electrode relay, ER-104 (see accessories))

Surcharge (EUR)

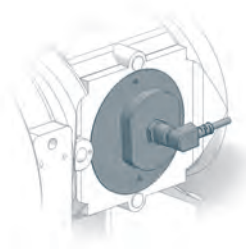
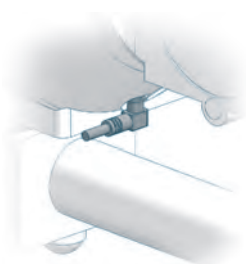
MBE-02	incl. connection cable	(length 2m)	▲
Connection cable for EEXia-circuit		(blue, length 5m)	▲

Stroke frequency monitoring

Inductive contact

Surcharge (EUR)

10 - 60 V DC, three-wire, PNP	▲
NAMUR-design, II2G EEXia IIC T6 (acc. to ATEX95)	▲



DIAPHRAGM FEEDING PUMPS

ACCESSORIES



Diaphragm monitoring (evaluation)

Electrode relay for mounting in control cabinet (for evaluating the diaphragm rupture electrode MBE-02 (see options))		Article-No.	Price (EUR)	
ER-104	auxiliary power 230 V AC	90022944	▲	
ER-104	auxiliary power 24 V DC	90022945	▲	
ER-142	auxiliary power 230 V AC	II(1)G [EExia] II C	90200363	▲

FITTINGS FOR THE SUCTION SIDE



Priming Aid/Siphon vessel

Properties

- Improvement of the priming behavior
- Easy handling
- High-quality materials
- Easy installation

Basic version

- Material: **PVC-U / PVC-transparent**
- Seals: **EPDM** or **FPM**
- Shut-Off fitting with filling-/venting joint
Hose nozzle d=12mm
- incl. holding clamp (1 piece)
- max. operating pressure: **-1 ... +2 bar**

Type	DN	Connection	Seals	Article-No.	Price (EUR)
⓪				⓪	⓪



Foot valve (Plastic)

Properties

- Compact design
- High-quality materials
- Easy installation
- Maintenance-free

Basic version

- Ball: **PTFE**
- Sieve: **ETFE**
- Mesh size: **1mm**

Type	DN	Connection	Material	Seals	Article-No.	Price (EUR)
⓪					⓪	⓪



Foot valve (Stainless steel)

Properties

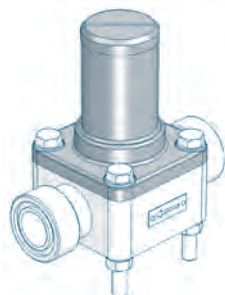
- Compact design
- High-quality materials
- Easy installation
- Maintenance-free

Basic version

- Ball: **1.4401**
- Sieve: **ETFE**
- Mesh size: **1mm**

Type	DN	Connection	Material	Seals	Article-No.	Price (EUR)
⓪					⓪	⓪

FITTINGS FOR THE PRESSURE SIDE



Diaphragm relief valve

for overpressure protection

Properties

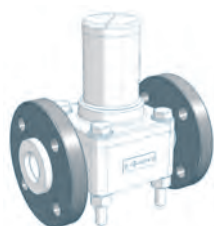
- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

Basic version

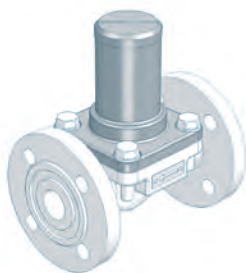
- Valve body: **PVC-U, 1.4581, PP** or **PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
624.10	DN25	G 1½	PVC-U	FPM	37603639	▲
624.10	DN25	G 1½	PVC-U	EPDM	37603638	▲
624.10	DN25	G 1½	PP	FPM	37603637	▲
624.10	DN25	G 1½	PP	EPDM	37603636	▲
624.10	DN25	G 1½	PVDF	FEP	37603866	▲
624.10	DN25	G 1½	1.4581	FEP	×	×

OPTIONS



Type	Design	Loose flange	Surcharge [EUR]
624.10	PVC	Loose flange made of PVC-U	▲
624.10	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	×
624.10	PP	Loose flange made of PP with steel inlay	▲
624.10	PVDF	Loose flange made of PP with steel inlay	▲



Diaphragm pressure keeping valve (with fixed flanges)

to prevent over-conveyance

Properties

- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

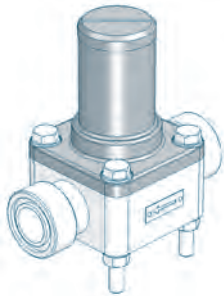
Basic design

- Flanges acc. to **DIN 2501**
- Valve body: **1.4581** or **GG**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Article-No.	Price (EUR)
624.10	DN25	DIN 2501	1.4581	36240104	▲
624.10	DN25	DIN 2501	GG	37600039	▲

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FITTINGS FOR THE PRESSURE SIDE



Diaphragm pressure keeping valve

to prevent over-conveyance

Properties

- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

Basic version

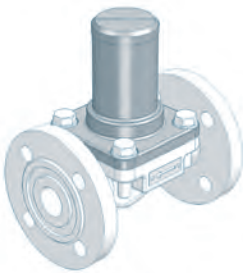
- Valve body: **PVC-U, 1.4581, PP** or **PVDF**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Seals	Article-No.	Price (EUR)
624.D	DN25	G 1½	PVC-U	FPM	37600051	▲
624.D	DN25	G 1½	PVC-U	EPDM	36241101	▲
624.D	DN25	G 1½	PP	FPM	37600058	▲
624.D	DN25	G 1½	PP	EPDM	36241105	▲
624.D	DN25	G 1½	PVDF	FEP	37606310	▲
624.D	DN25	G 1½	1.4581	FEP	×	×

OPTIONS



Type	Design	Loose flange	Surcharge [EUR]
624.D	PVC	Loose flange made of PVC-U	▲
624.D	PP-FRP/PVDF-FRP	Loose flange made of PP with steel inlay	×
624.D	PP	Loose flange made of PP with steel inlay	▲
624.D	PVDF	Loose flange made of PP with steel inlay	▲



Diaphragm pressure keeping valve (with fixed flanges)

to prevent over-conveyance

Properties

- Compact design
- Easy installation
- Maintenance-free
- High-quality materials

Basic design

- Flanges acc. to **DIN 2501**
- Valve body: **1.4581** or **GG**
- Diaphragm: **PTFE-faced**

Type	Nominal size	Connection	Valve body	Article-No.	Price (EUR)
624.D	DN25	DIN 2501	1.4581	36241104	▲
624.D	DN25	DIN 2501	GG	37600081	▲

FITTINGS FOR THE PRESSURE SIDE



Diaphragm pulsation damper (Plastic, with elastomere diaphragm, max. 10 bar)

Properties

- Any mounting position
- Easy installation
- Long service life
- Easy handling
- High-quality materials
- Low maintenance

Type	Connection	max. Pressure	Housing	Diaphragm		Article-No.	Price (EUR)
				Seals			
713.1	G 1 1/4	10 bar	PVC-U	EPDM		30071038	▲
713.1	G 1 1/4	10 bar	PVC-U	FPM		30071039	▲
713.1	G 1 1/4	10 bar	PP	EPDM		30071040	▲
713.1	G 1 1/4	10 bar	PP	FPM		30071041	▲
713.1	G 1 1/4	10 bar	PVDF	EPDM		30071060	▲
713.1	G 1 1/4	10 bar	PVDF	FPM		30071061	▲

OPTIONS



Loose-type flanges

Design acc. to DIN 2501, incl. O-Rings

PVC-design	Loose flange, PVC-U	DN20	▲
PP-/PVDF-design	Loose flange, PP with steel insert	DN20	▲

ACCESSORIES



Bracket

PP

90010913

▲

for wall mounting

1.4301

90010914

▲

Steel (color treated)

90010915

▲



Filling pump FLP 2

for filling device

with manometer, max. 7 bar incl. 2m hose and coupling for air valve		90009396	▲
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Dosing valve (Plastic)

Properties

- Compact design
- Any mounting position
- Maintenance-free
- High-quality materials

Basic version

- Valve ball: **PTFE**
- Spring: **Hastelloy C4**



Type	DN	Inlet	Outlet	Material	Seal	Article-No.	Price (EUR)
⌚						⌚	⌚