

# GEAR PUMP DRIVE BVP-Z Standard

1-7241 ml/min  
(depends on pump-head)

Economical  
Robust, Powerful gear pump drive

- 속도 조절가능 (no dispensing functions)
- Pulse가 없는 pumping
- 5.2bar까지의 Differential pressure

## Interfaces



Speed control (0-5 or 0-10 V, 0-20 or 4-20 mA)  
Speed output (0-10VDC or 0-12 kHz)  
Start/Stop



BVP-Z Standard  
with interchangeable gear pump-heads  
(see page 53)  
(material options, see page 47)



## BVP-Z Standard

without dispensing functions

- 백 단위까지 Speed setting 가능
- Flow rate 및 differential pressure 요구에 따른 20가지 종류의 pump-heads를 교체 가능

## Applications

- pump-heads가 허용하는 differential pressure내의 파티클이 없는 액체를 이송하거나 dispensing하는 응용
- 실험실 단위에서 유기합성의 경우 시약이나 용매를 첨가할 때 dispensing 정밀도는  $\pm 1\%$  이고 differential pressures는 최대 3bar 까지임

## Specifications

Motor type	DC motor
Speed	60-6000 rpm
Speed setting	1-99.9%, resolution 0.1% 3-digit potentiometer
Power consumption	150 W
Mains connection	230V <sub>AC</sub> /50Hz, 115V <sub>AC</sub> /60Hz adjustable
Depth/Width/Height	220 X 155 X 260 mm (without pump head)
Weight	5.7kg (without pump head)
Protection rating	IP 30

## Ordering Information

The complete pump system BVP-Z Standard consist of:

Drive(magnet included)	<b>ISM 446</b>
Pump-head	Pages 53
2 Nozzles	Pages 53
Accessories	Page 65
-Foot switch	<b>ISM 891</b>
-Valve	on request

**Interfaces**



PC-controllable:  
-RS232



Speed control (0-5 or 0-10 V, 0-20 or 4-20 mA)  
Speed output (0-10VDC or 0-12 kHz)  
Start/Stop  
Auto start  
2 universal inputs  
2 universal outputs

**1-7241 ml/min**  
(depends on pump-head)



ISMATEC gear pump는 오직 시계방향으로만 작동한다. 파티클이 포함된 용액에는 gear pump를 사용할 수 없음.

**Ordering Information pump-heads for BVP-Z/MCP-Z**

**Pump-head >> Suction Shoe<<**

- 증가하는 differential pressure에 강화된 pumping 성능
- 증가하는 temperature ranges에 적합

Suction Shoe	Pump-head No.	Order No.	Flow rate(ml/min)		Differential pressure max. bar	Gear material	Seals	Stainless steel housing	System pressure, max. (bar)	Temperature range °C	Internal Bypass
			min.	max.							
	GA-X21.CFS.B	82092	1	99	1.4	Graphite	PTFE	SS316	21	-46- +177	-
	GA-X21.JFS.B	L20820	1	99	2.3	PEEK™	PTFE	SS316	21	-46- +177	-
	GA-V21.CFS.B	82114	3	252	2.8	Graphite	PTFE	SS316	21	-46- +177	-
	GA-T23.CFS.B	82115	5	504	2.8	Graphite	PTFE	SS316	21	-46- +177	-
	GA-T23.PFS.B	81473	6	560	5.2	PPS	PTFE	SS316	21	-46- +177	-
	GA-T23.JFS.B	L18489	6	560	5.2	PEEK	PTFE	SS316	21	-46- +177	-
	GB-P25.PVS.A.B1	81281	35	3509	3.5	PPS	Viton	SS316	21	-29- +177	✓
	GB-P25.JVS.A	220004	35	3480	3.5	PEEK	Viton	SS316	21	-29- +177	-
	GB-P35.PVS.A.B1	81282	70	7020	3.5	PPS	Viton	SS316	21	-29- +177	✓
Organic solvents	GB-P35.JKS.A.B1	L22609	73	7241	3.5	PEEK	Kalrez®	SS316	21	-29- +177	✓
For corrosive media	GA-X21.CFC.B	L17164	1	99	1.4	Graphite	PTFE	Hastelloy®-C276	21	-46- +177	-
	GA-V23.CFC.B	L2383	5	504	2.8	Graphite	PTFE	Hastelloy®-C276	21	-46- +177	-

- Ports(internal thread)1/8"-27NPT - Flow rates without differential pressure  
- operating temperature : with other seals up to 99°C possible



Service Kits contain the wearing parts (bushings, seals, gears)

**Pump-head >> Cavity Style<<**

- 점도가 있는 용액과 일정 흡입 높이가 있는 경우에 사용
- 화학적 내구성 우수
- 부드럽고 정밀한 유량

Cavity style	Pump-head No.	Order No.	Flow rate(ml/min)		Differential pressure max. bar	Gear material	Seals	Stainless steel housing	System pressure, max. (bar)	Temperature range °C	Internal Bypass
			min.	max.							
	GJ-N23.FFS.B.B1	82004	40	3950	3.5	PTFE	PTFE	SS316	21	-46-+54	✓
	GJ-N23.FFS.B	82001	40	3950	3.5	PTFE	PTFE	SS316	21	-46-+54	-
	GJ-N23.JFS.B	L19735	40	3950	5.6	PEEK	PTFE	SS316	21	-46-+54	-
	GJ-N25.FFS.B	82003	55	5460	3.5	PTFE	PTFE	SS316	21	-46-+54	-
	GJ-N23.PFS.B.B1	81529	40	3950	5.2	PPS	PTFE	SS316	21	-46-+54	✓
	GJ-N23.PFS.B	81531	40	3950	5.2	PPS	PTFE	SS316	22	-46-+54	-
For corrosive media	GJ-N23.FFC.B	L20284	40	3950	3.5	PTFE	PTFE	Hastelloy-C276	21	-46-+54	-
	GJ-N25.FFC.B	L21812	55	5480	3.5	PTFE	PTFE	Hastelloy-C276	21	-46-+54	-
For abrasive media	GJ-N23.9FD.B	MI0265	40	3950	5.2	NiC	PTFE	Surface hardened	21	-46-+54	-

- Ports (internal thread) 1/8" -27NPT  
- Flow rates without differential pressure  
- Operating temperature : with other seals up to 99°C possible

\* For applications with differential pressures exceeding 1 bar we recommend using the MCP-Z drive.



Delivery pump  
BVP-Z Standard  
ISM 446



Dosing pump  
MCP-Z Standard  
ISM 405



Programmed dosing  
MCP-Z Process IP65  
ISM 918

**Tubing adaptors for gear pump-heads**

Threaded stainless steel connectors		
Order No.	External thread Tubing adaptor	Tubing i.d. mm
AR0001	1/8" NPT Tube nozzle	6
AR0002	1/8" NPT Tube nozzle	3
AR0004	3/8" NPT Tube nozzle	12
AR0008	1/8" NPT Tube nozzle	8
AR0009	1/8" NPT Tube nozzle	9.5
AR0024	1/8" NPT Pipe connection	6 (outside)
Threaded connectors in Hastelloy®-C 276		
AR0001-HC	1/8" NPT Tube nozzle	6