


E-Type

Eco Power-Saving

Under the wave of Industry 4.0, various industries are investing in automation to improve production speed, flexibility, and cost-effectiveness, but another major problem has arisen! In the automation process, regardless of the compressed air driven by pneumatic or the power consumption of electric drive, **it will cause a lot of energy consumption.**

 launched the **E-Type** series products, which not only reduce the power consumption of the solenoid valve by more than **75%** but also **reduce the temperature of the** solenoid valve coil to extend the service life of the solenoid valve.

E-TYPE Eco Power-Saving Solenoid Valve

Features

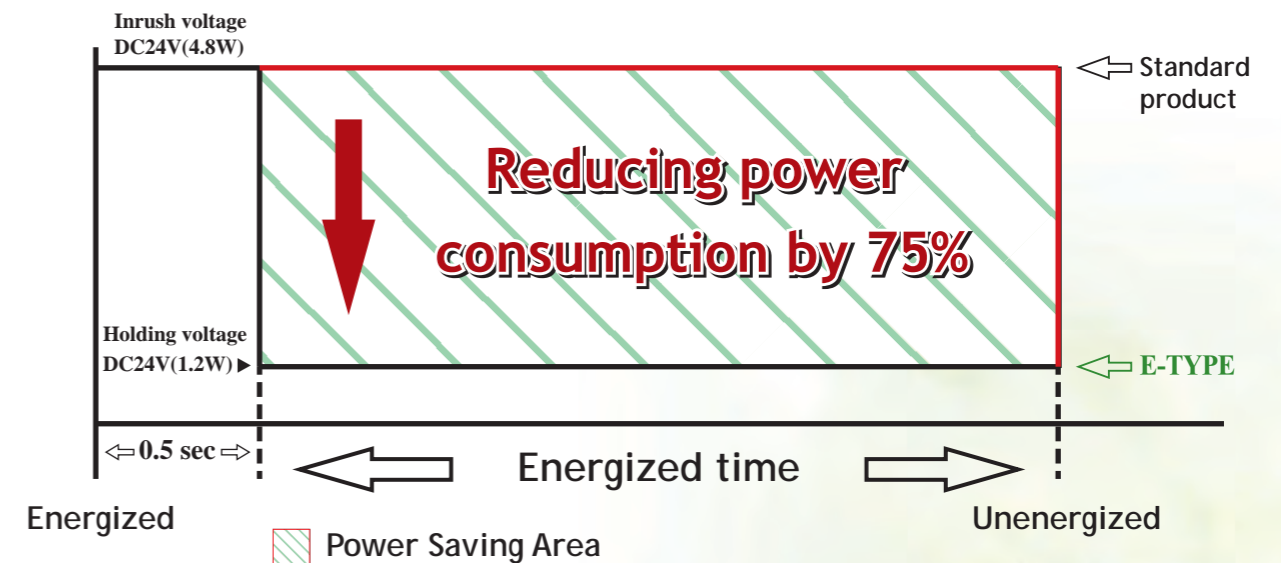
- (1) Power savings by reducing current consumption.
- (2) Also can reduce the temperature of the solenoid's coil to improve the performance and extend the service life While saving power.

Operating Principle

When the solenoid valve is actuated, the starting voltage (Inrush voltage) is first applied to switch the valve. After the valve switching is completed, the solenoid valve at this time only needs a small current (and voltage) to maintain the current state of the valve, which is called As the holding voltage, **SHAKO** uses this feature to make **"energy-saving"** solenoid valves.

Generally, the pulse width modulation method (PWM) is commonly used as an energy-saving control method. The energy-saving efficiency of this method is limited. Therefore, **SHAKO** adopts the **"smart IC chip + special process"** to directly reduce the current to achieve energy-saving control.

The example for calculation method of energy saving



Test condition:

Coil: 24VDC (4.8W), Operating time: 12 hrs /day, 22 days/month

(1) Coil with Standard connector/pcs :4.8W * 12 hrs * 22 days =1267.2W/month

(2) Coil with E-type connector/pcs:1.2W * 12 hrs * 22 days =316.8W/month

You can save energy of 950.4 W per month by 1pcs.

Features

1. Maximum reduction of power consumption is up to 75%.
2. Effectively reduce temperature rise of coil and extend service life of solenoid valve.
3. Quick response.
4. Timer for setting on/off time as optional accessory.
5. Coil nut is available, please refer to page 5-1, 5-3.
6. For power save connector, please refer to page 5-5, 5-6.



How to order

E-PU220AR	V	-	01	1	N	-	S7
Brass 2/2 way direct acting	Diaphragm		Port size	Pressure	Thread		Voltage
	Blank :NBR V :VITON E :EPDM H :HNBR		01 :1/8" 02 :1/4" 03 :3/8"	Blank :Standard 1 :High pressure 2 :Medium pressure <small>*High pressure & Medium pressure are only available for PU220AR-01 & PU220AR-02</small>	Blank :G N :NPT R :Rc		S7 :12VDC S9 :24VDC

How to order Repair kit

ZGPU220AR - 01	N	ZGPU220AR-01	ZGPU220AR-03
Repair kit	Port size	Description	Description
	Diaphragm	Qty.	Qty.
	01 :1/8", 1/4" 03 :3/8"	Plunger 1 O-ring 1	Plunger 1 Orifice adaptor 1 Diaphragm 1 O-ring 1

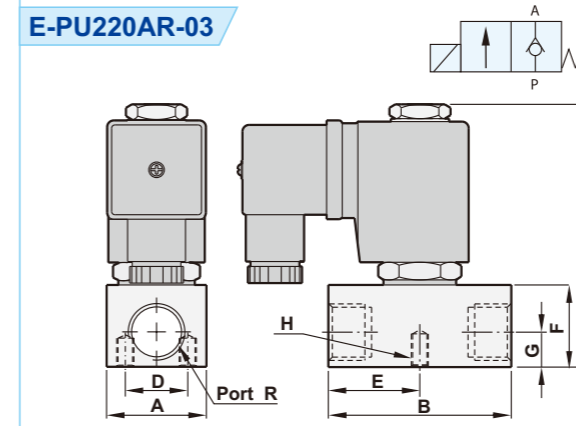
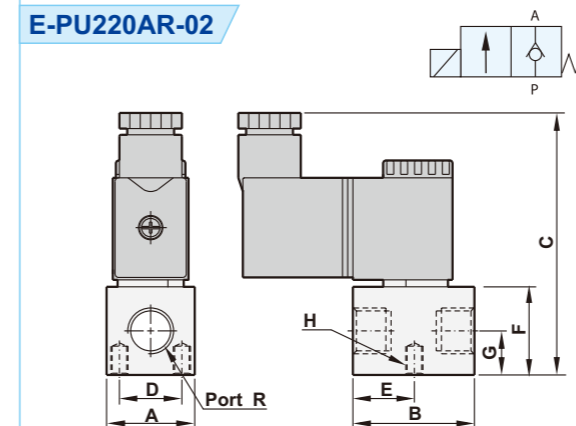
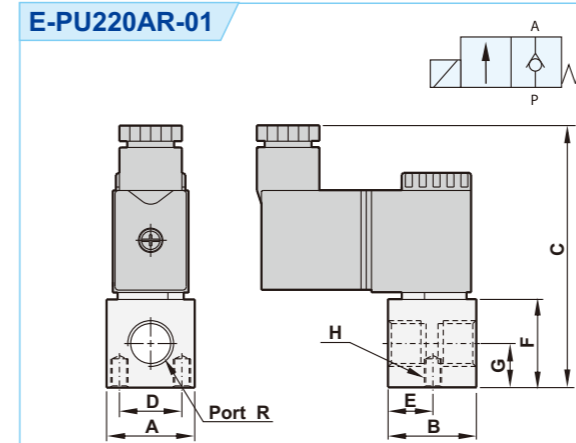
Specifications

Model	E-PU220AR-01	E-PU220AR-011	E-PU220AR-012	E-PU220AR-02	E-PU220AR-021	E-PU220AR-022	E-PU220AR-03
Port size	1/8"			1/4"		3/8"	
Fluid	Compressed air (light oil, water)						
Orifice	Ø1.5mm	Ø0.8mm	Ø1.2mm	Ø2.3mm	Ø1.2mm	Ø1.5mm	Ø8.0mm
Effective area	1.8mm ²			3.3mm ²		20.64mm ²	
Acting	Direct acting					Assisted lift	
Construction	Gasket					Diaphragm	
Operating pressure range DC	0~7kgf/cm ²	0~13kgf/cm ²	0~10kgf/cm ²	0~7kgf/cm ²	0~13kgf/cm ²	0~10kgf/cm ²	0~7kgf/cm ²
Proof pressure	10 kgf/cm ²						
Body material	Brass						
Fluid temperature	-10°C ~ 90°C						
Ambient temperature	-10°C ~ 60°C						
Installation	Any direction (Horizontal is recommended)						
Duty cycle	100% ED						
Coil type	DIN						
Protection class	IP65 (DIN 40 050)						
Insulation class	F						
Voltage tolerance	±10%						
Standard voltage	12VDC, 24VDC						
Power consumption	Power save 75% = 1.2W					Power save 75% = 3.7W (4.6W option)	
Net weight	175g			255g		510g	

Seal material selection guide

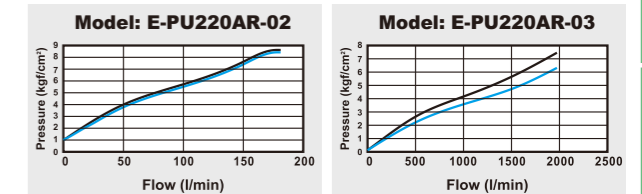
Seal	Temperature range	Suitable fluid	Unsuitable fluid
NBR	-15°C ~ 80°C	Air, Water, Neutral gases, Mineral oil	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel
HNBR	-40°C ~ 150°C	Air, Water, Gear oil, Engine oil	Pharmaceutical liquid, Gasoline and Hi-test gasoline, Light oil
VITON	-10°C ~ 180°C	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel	Hot water, Steam, Brake oil (ATE Blue)
EPDM	-5°C ~ 130°C	Hot water, Detergent liquid	Mineral oil, Gasoline

Dimensions

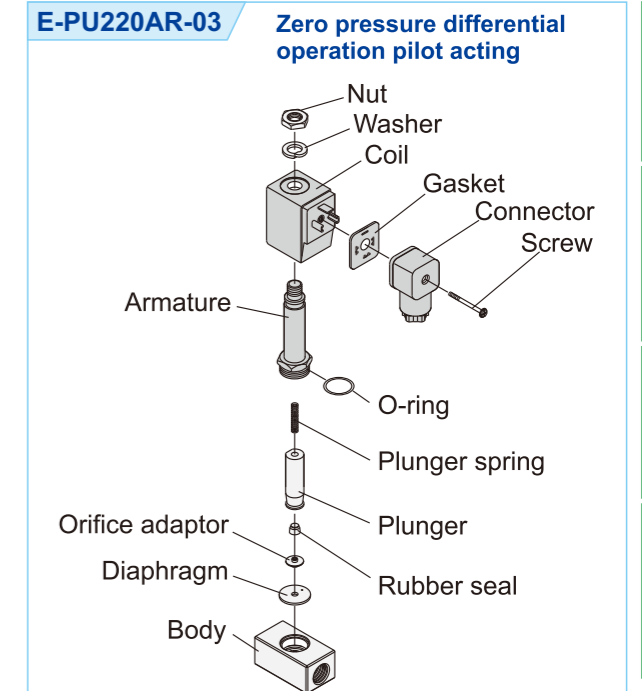


Model	E-PU220AR-01	E-PU220AR-02	E-PU220AR-03
R	1/8"	1/4"	3/8"
A	22	25.4	30
B	22	35	55
C	72	75	79
D	15	18	18
E	11	17.5	27.5
F	22	25.4	25
G	7.5	12.7	11
H	M4xP0.7xL6.5	M5xP0.8xL7.0	M5xP0.8xL7.0

Flow chart



Explosion



Features

1. Maximum reduction of power consumption is up to 75%.
2. Effectively reduce temperature rise of coil and extend service life of solenoid valve.
3. Quick response.
2. Stainless steel stem provides exceptional durability.
3. Flange type is available for JIS 10K, ANSI 150LB and PN16.
4. Timer for setting on/off time as optional accessory.
5. CE conformity.
6. Coil nut is available, please refer to page 5-3.
7. For power save connector, please refer to page 5-6.



How to order

E-PU220A	N	V	F	—	03	N	—	S7
Brass	Acting style	Diaphragm	Flange type		Port size	Thread		Voltage
Assisted Lift	Blank :Normally closed N :Normally open	Blank :NBR V :VITON E :EPDM H :HNBR	Blank :W/O Flange F :10K F3 :150LB F4 :PN16 only for A series		03 :3/8" 04 :1/2" 06 :3/4" 08 :1"	Blank :G N :NPT R :Rc		S7 :12VDC S9 :24VDC

How to order Repair kit

ZGPU220A	—	03	N	Description	Qty.
Repair kit		Port size	Diaphragm		
ZGPU220A (Normally closed)		03 :3/8", 1/2"	N :NBR	Diaphragm set	1
ZGPU220AN (Normally open)		06 :3/4" 08 :1"	V :VITON E :EPDM H :HNBR	Spring	1
				Packing	1

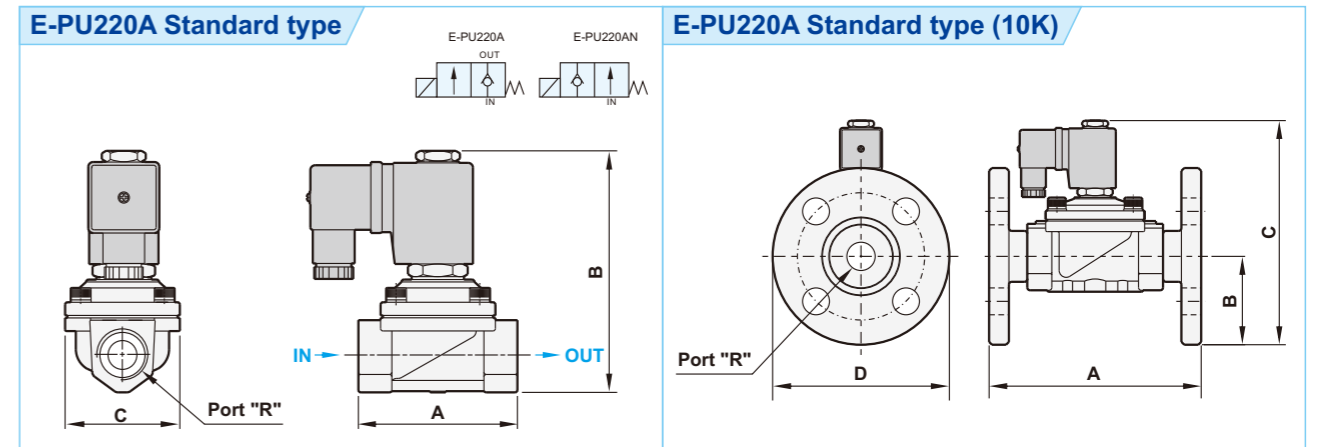
Specifications

Model	E-PU220A-03	E-PU220A-04	E-PU220A-06	E-PU220A-08
Port size	3/8"	1/2"	3/4"	1"
Fluid	Compressed air (light oil, water)			
Orifice	Ø13mm	Ø13mm	Ø20mm	Ø25mm
Effective area	76mm ²	76mm ²	162mm ²	220mm ²
Acting	Assisted Lift			
Construction	Diaphragm			
Operating pressure range DC	0 ~ 6 kgf/cm ²		0 ~ 5 kgf/cm ²	
Proof pressure	10 kgf/cm ²			
Body material / Flange material	Forged Brass / Steel SS41			
Fluid temperature	-10°C ~ 90°C			
Ambient temperature	-10°C ~ 60°C			
Installation	Horizontal			
Duty cycle	100% ED			
Coil type	DIN			
Protection class	IP65 (DIN 40 050)			
Insulation class	F			
Voltage tolerance	±10%			
Standard voltage	12VDC, 24VDC			
Power consumption	Power save 75% = 3.7W(4.6W option)			
Net weight	740g	740g	945g	1485g

Seal material selection guide

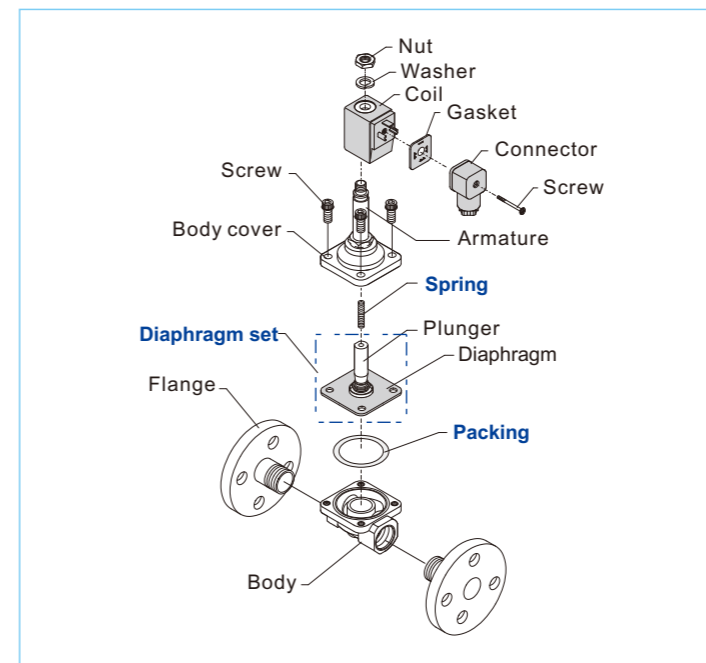
Seal	Temperature range	Suitable fluid	Unsuitable fluid
NBR	-15°C ~ 80°C	Air, Water, Neutral gases, Mineral oil	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel
HNBR	-40°C ~ 150°C	Air, Water, Gear oil, Engine oil	Pharmaceutical liquid, Gasoline and Hi-test gasoline, Light oil
VITON	-10°C ~ 180°C	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel	Hot water, Steam, Brake oil (ATE Blue)
EPDM	-5°C ~ 130°C	Hot water, Detergent liquid	Mineral oil, Gasoline

Dimensions

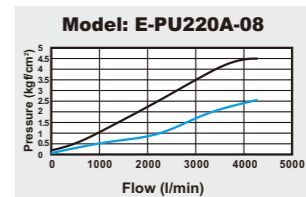
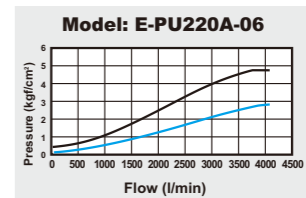
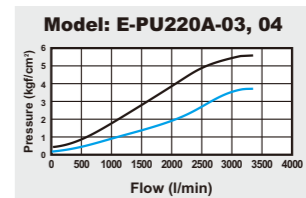


Model	E-PU220A-03	E-PU220A-04	E-PU220A-06	E-PU220A-08	Model	E-PU220AF-03	E-PU220AF-04	E-PU220AF-06	E-PU220AF-08
R	3/8"	1/2"	3/4"	1"	R	3/8"	1/2"	3/4"	1"
A	66.5	66.5	71	96	A	110	110	120	150
B	101	101	107	120.5	B	45	47.5	50	62.5
C	48	48	58	70.7	C	130.5	133	138.5	158.5
					D	90	95	100	125

Explosion



Flow chart



Features

1. Maximum reduction of power consumption is up to 75%.
2. Effectively reduce temperature rise of coil and extend service life of solenoid valve.
3. Quick response.
4. Stainless steel stem provides exceptional durability.
5. Flange type is available for JIS 10K, ANSI 150LB and PN16.
6. Timer for setting on/off time as optional accessory.
7. CE conformity.
8. Coil nut is available, please refer to page 5-3.
9. For power save connector, please refer to page 5-6.



How to order

E-SPU220A	N	E	F	-	03	N	-	S7
Stainless steel Assisted Lift	Acting style Blank : Normally closed N : Normally open	Diaphragm Blank : VITON E : EPDM B : NBR H : HNBR	Flange type Blank : W/O Flange F : 10K F3 : 150LB F4 : PN16 only for A series		Port size 03 : 3/8" 04 : 1/2" 06 : 3/4" 08 : 1"	Thread Blank : G N : NPT R : Rc		Voltage S7 : 12VDC S9 : 24VDC

How to order Repair kit

ZGPU220A	-	03	N	Description	Qty.
Repair kit				Diaphragm set	1
ZGPU220A (Normally closed)		03 : 3/8", 1/2"	N : NBR	Spring	1
ZGPU220AN (Normally open)		06 : 3/4" 08 : 1"	V : VITON E : EPDM H : HNBR	Packing	1

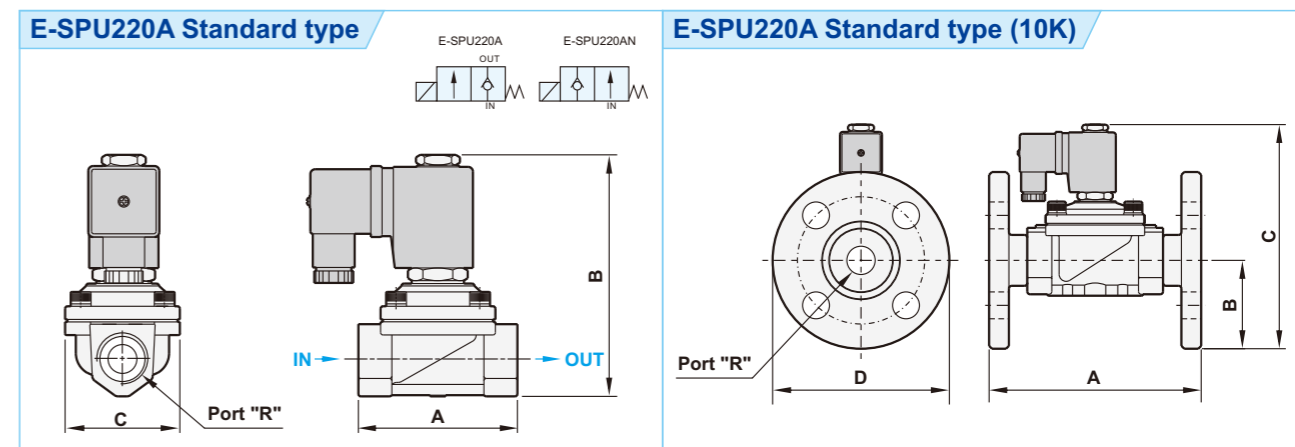
Specifications

Model	E-SPU220A-03	E-SPU220A-04	E-SPU220A-06	E-SPU220A-08
Port size	3/8"	1/2"	3/4"	1"
Fluid	Compressed air (light oil, water)			
Orifice	Ø13mm		Ø20mm	Ø25mm
Effective area	76mm ²		162mm ²	220mm ²
Acting	Assisted Lift			
Construction	Diaphragm			
Operating pressure range DC	0 ~ 6 kgf/cm ²		0 ~ 5 kgf/cm ²	
Proof pressure	10 kgf/cm ²			
Body material / Flange material	Stainless steel SUS316 / SUS316, SUS304			
Fluid temperature	-10°C ~ 90°C			
Ambient temperature	-10°C ~ 60°C			
Installation	Horizontal			
Duty cycle	100% ED			
Coil type	DIN			
Protection class	IP65 (DIN 40 050)			
Insulation class	F			
Voltage tolerance	±10%			
Standard voltage	12VDC, 24VDC			
Power consumption	Power save 75% = 3.7W(4.6W option)			
Net weight	725g	715g	920g	1250g

Seal material selection guide

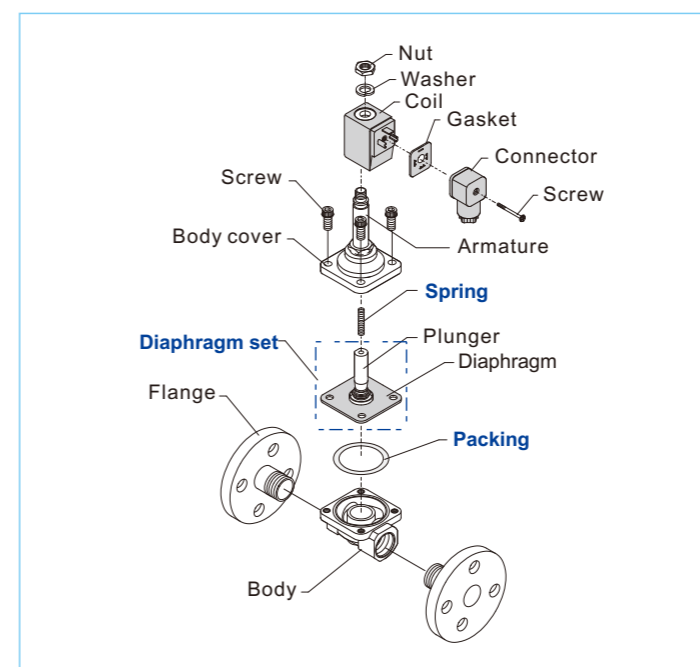
Seal	Temperature range	Suitable fluid	Unsuitable fluid
NBR	-15°C ~ 80°C	Air, Water, Neutral gases, Mineral oil	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel
HNBR	-40°C ~ 150°C	Air, Water, Gear oil, Engine oil	Pharmaceutical liquid, Gasoline and Hi-test gasoline, Light oil
VITON	-10°C ~ 180°C	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel	Hot water, Steam, Brake oil (ATE Blue)
EPDM	-5°C ~ 130°C	Hot water, Detergent liquid	Mineral oil, Gasoline

Dimensions

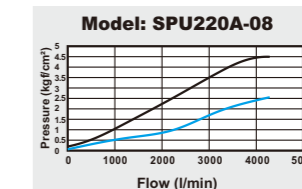
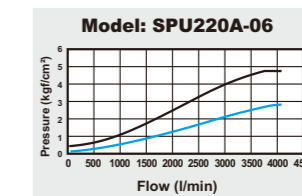
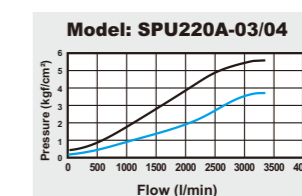


Model	SPU220A-03/04	SPU220A-06	SPU220A-08	Model	SPU220AF-03/04	SPU220AF-06	SPU220AF-08
R	3/8" 1/2"	3/4"	1"	R	3/8" 1/2"	3/4"	1"
A	66.5	71	100	A	110	120	150
B	101	107	120	B	47.5	50	62.5
C	48	58	75	C	133	138.5	158.5
				D	95	100	125

Explosion



Flow chart



Features

1. Maximum reduction of power consumption is up to 75%.
2. Effectively reduce temperature rise of coil and extend service life of solenoid valve.
3. Direct acting and quick response.
4. Suitable for acid and alkaline chemical fluid.
5. Fluid should be liquid. Solid media is forbidden.
6. Horizontal installation is required.
7. Coil nut is available, please refer to page 5-3, 5-4.
8. For power save connector, please refer to page 5-6.



How to order

E-PE220	N	-	03	N	-	S7
Teflon Direct acting Solenoid control	Acting style		Port size	Thread		Voltage
	Blank:Normally closed N:Normally open		03:3/8" 04:1/2"	Blank:G N:NPT R:Rc		S7:12VDC S9:24VDC

How to order Repair kit

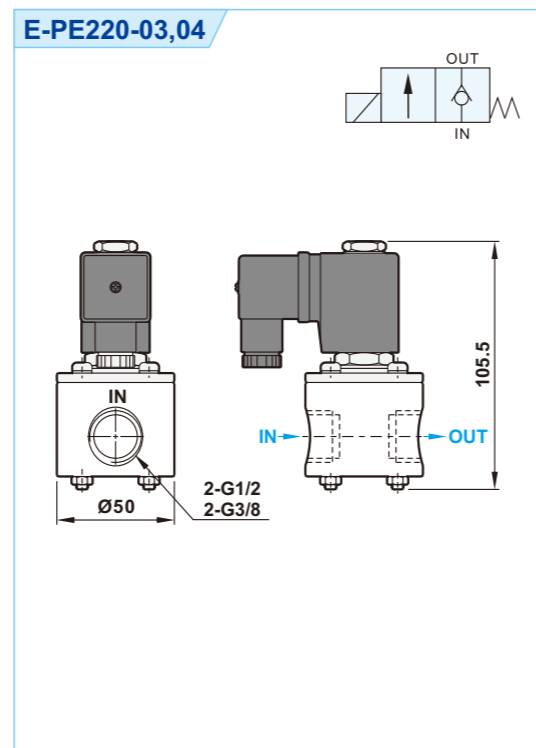
ZGPE220 - 03	
Repair kit	Port size
ZGPE220 ZGPE220H	03:3/8", 1/2"

Description	Qty.
Plunger	1
Spring	1
Gasket	1
Diaphragm	1

Specifications

Model	E-PE220-03	E-PE220-04
Port size	3/8"	1/2"
Fluid	Pure water, Chemical acid & alkali liquid	
Orifice	Ø5mm	
Acting	Direct acting	
Diaphragm	NBR PTFE	
Operating pressure range	0.1 ~ 1 kgf/cm ²	
Proof pressure	1.5 kgf/cm ²	
Body material	Teflon	
Fluid temperature	-10°C ~ 90°C	
Ambient temperature	-10°C ~ 60°C	
Installation	Horizontal	
Duty cycle	100% ED	
Coil type	DIN	
Protection class	IP65 (DIN 40 050)	
Insulation class	F	
Voltage tolerance	±10%	
Standard voltage	12VDC, 24VDC	
Power consumption	Power save 75% = 3.7W	
Net weight	440g	

Dimensions



Features

1. Maximum reduction of power consumption is up to 75%.
2. Effectively reduce temperature rise of coil and extend service life of solenoid valve.
3. Direct acting.
4. Quick response.
5. Timer for setting on/off time as optional accessory.
6. Good performance on resistance of counter flow.
7. Coil nut is available, please refer to page 5-3, 5-4.
8. For power save connector, please refer to page 5-6.



How to order

E-SPUY220	E	-	04	N	-	S7
Angle type Direct Acting	Diaphragm		Port size	Thread		Voltage
	Blank:VITON E:EPDM H:HNBR		04:1/2"	Blank:G N:NPT R:Rc		S7:12VDC S9:24VDC

*Please contact our sales for normally open type.

How to order Repair kit

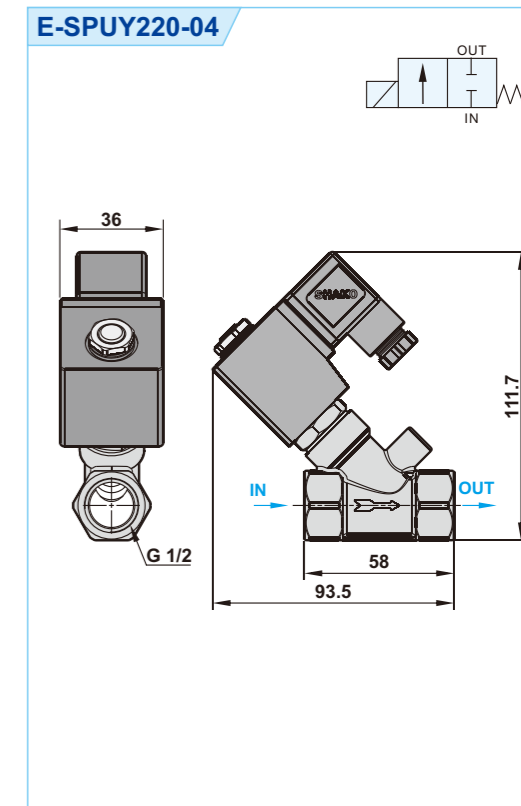
ZGSPUY - 04		V
Repair kit	Port size	Diaphragm
	04:1/2"	V:VITON E:EPDM H:HNBR

Description	Qty.
T type plunger	1
O-ring	1

Specifications

Model	E-SPUY220-04
Port size	1/2"
Fluid	Standard:Compressed air Option:Hot water,Ammonia,Vacuum
Orifice	Ø9.5mm
Effective area	27.6mm ²
Acting	Direct acting
Seal	Standard:VITON, Option:EPDM
Operating pressure range	0 ~ 8 kgf/cm ²
Proof pressure	15 kgf/cm ²
Body material	SUS316
Fluid temperature	-10°C ~ 90°C
Ambient temperature	-10°C ~ 60°C
Installation	Any direction
Duty cycle	100% ED
Coil type	DIN
Protection class	IP65 (DIN 40 050)
Insulation class	F
Voltage tolerance	±10%
Standard voltage	12VDC, 24VDC
Power consumption	Power save 75% = 4.6W
Net weight	425g

Dimensions



Features

1. Maximum reduction of power consumption is up to 75%.
2. Effectively reduce temperature rise of coil and extend service life of solenoid valve.
3. Pilot acting for low starting pressure.
4. Large flow rate and high working pressure.
5. Quick response.
6. Stainless steel stem provides exceptional durability.
7. Flange type is available for JIS 10K, ANSI 150LB and PN16.
8. Timer for setting on/off time as optional accessory.
9. CE conformity.
10. Coil nut is available, please refer to page 5-3.
11. For power save connector, please refer to page 5-6.



How to order

E-PU225A	N	V	F	—	O3	N	—	S7
Pilot Acting	Acting style	Diaphragm	Flange type	Port size	Thread	Voltage		
	Blank : Normally closed N : Normally open	Blank : NBR V : VITON E : EPDM H : HNBR	Blank : W/O Flange F : 10K F3 : 150LB F4 : PN16	O3 : 3/8" 12 : 1 1/4" O4 : 1/2" 14 : 1 1/2" O6 : 3/4" 20 : 2" O8 : 1"	Blank : G N : NPT R : Rc	S7 : 12VDC S9 : 24VDC		

How to order Repair kit

ZGPU225A	—	O3	N	Description	Qty.
Repair kit	Port size	Diaphragm		Plunger	1
ZGPU225A (Normally closed)	O3 : 3/8", 1/2"	N : NBR		Spring	2
ZGPU225AN (Normally open)	O6 : 3/4", 1" 12 : 1-1/4", 1-1/2" 20 : 2"	V : VITON E : EPDM H : HNBR		Diaphragm	1

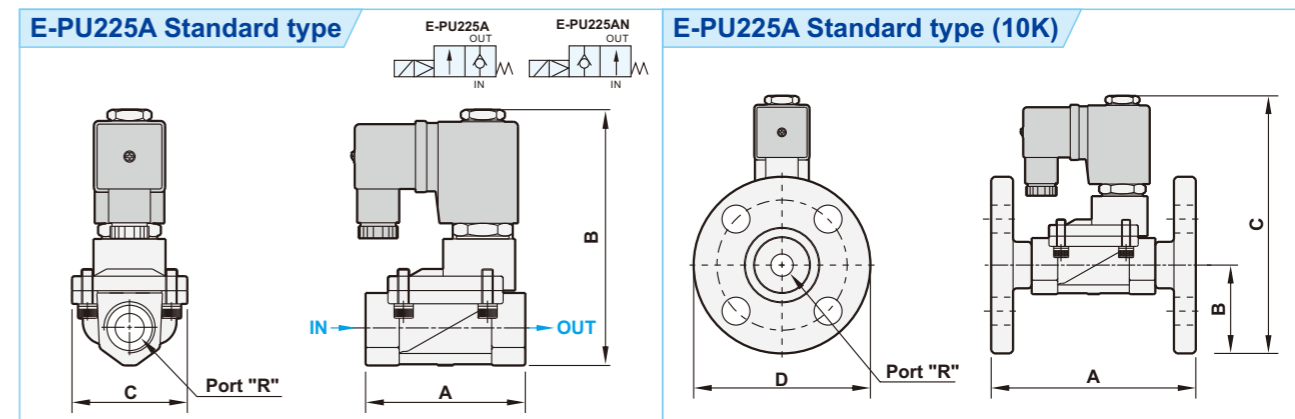
Specifications

Model	E-PU225A-03	E-PU225A-04	E-PU225A-06	E-PU225A-08	E-PU225A-12	E-PU225A-14	E-PU225A-20
Port size	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Fluid	Compressed air (light oil, water)						
Orifice	13mm		25mm		38mm		50mm
Effective area	88mm ²		230mm ²		404mm ²	552mm ²	883mm ²
Acting	Pilot acting						
Construction	Diaphragm						
Operating pressure range	0.5 ~ 10kgf/cm ² (0.5 ~ 10.0Bar)						
Proof pressure	15 kgf/cm ² (15.0Bar)						
Body / Flange material	Forged Brass / Steel SS41						
Fluid temperature	-10°C ~ 90°C						
Ambient temperature	-10°C ~ 60°C						
Installation	Horizontal						
Duty cycle	100% ED						
Coil type	DIN						
Protection class	IP65 (DIN 40 050)						
Insulation	F						
Voltage tolerance	± 10%						
Standard voltage	12VDC, 24VDC						
Power consumption	Power save 75% = 3.7W						
Net weight	775g		1550g		2820g		4665g

Seal material selection guide

Seal	Temperature range	Suitable fluid	Unsuitable fluid
NBR	-15°C ~ 80°C	Air, Water, Neutral gases, Mineral oil	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel
HNBR	-40°C ~ 150°C	Air, Water, Gear oil, Engine oil	Pharmaceutical liquid, Gasoline and Hi-test gasoline, Light oil
VITON	-10°C ~ 180°C	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel	Hot water, Steam, Brake oil (ATE Blue)
EPDM	-5°C ~ 130°C	Hot water, Detergent liquid	Mineral oil, Gasoline

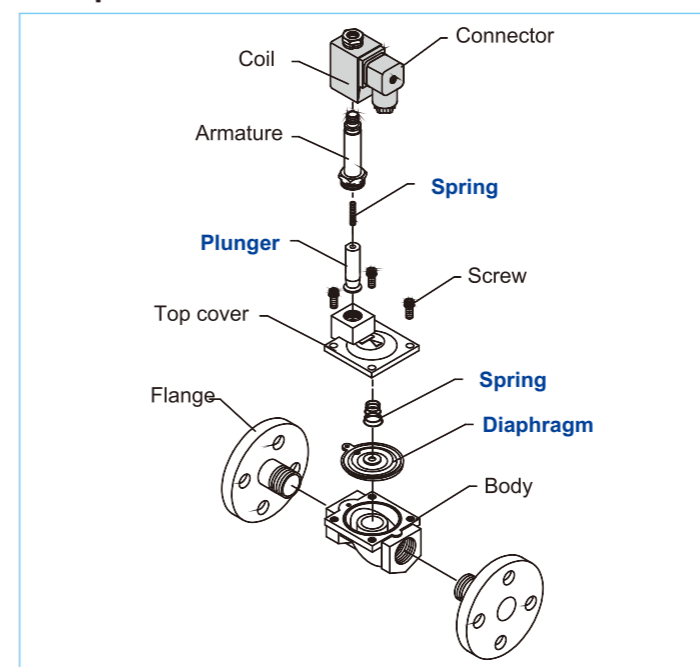
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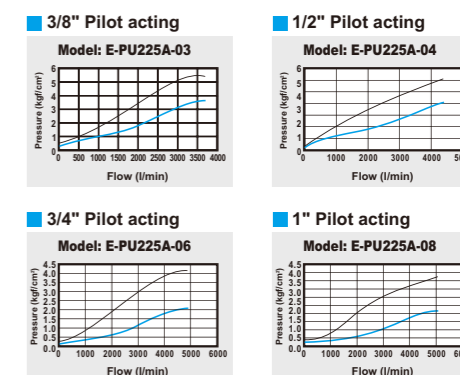
Model	R	A	B	C	(mm)
E-PU225A-03	3/8"	66.5	106.5	48.5	
E-PU225A-04	1/2"	66.5	106.5	48	
E-PU225A-06	3/4"	96	126	70.7	
E-PU225A-08	1"	96	126	70.7	
E-PU225A-12	1 1/4"	131.5	145.5	96	
E-PU225A-14	1 1/2"	131.5	145.5	96	
E-PU225A-20	2"	160	160	112	

Model	R	A	B	C	D	(mm)
E-PU225AF-03	3/8"	110	45	136	90	
E-PU225AF-04	1/2"	110	47.5	138.5	95	
E-PU225AF-06	3/4"	145	50	153	100	
E-PU225AF-08	1"	150	62.5	165.5	125	
E-PU225AF-12	1 1/4"	180	67.5	173	135	
E-PU225AF-14	1 1/2"	180	70	182.5	140	
E-PU225AF-20	2"	210	77.5	210	155	

Explosion



Flow chart



Features

1. Maximum reduction of power consumption is up to 75%.
2. Effectively reduce temperature rise of coil and extend service life of solenoid valve.
3. Pilot acting for low starting pressure.
4. Large flow rate and high working pressure.
5. Quick response.
6. Stainless steel body and stem provide exceptional durability.
7. Flange type is available for JIS 10K, ANSI 150LB and PN16.
8. Timer for setting on/off time as optional accessory.
9. CE conformity.
10. Coil nut is available, please refer to page 5-3.
11. For power save connector, please refer to page 5-6.



How to order

E-SPU225A	N	E	F	—	O3	N	—	S7
Stainless steel	Acting style	Diaphragm	Flange type		Port size	Thread		Voltage
Pilot acting	Blank :Normally closed N :Normally open	Blank :VITON B :NBR E :EPDM H :HNBR	Blank :W/O Flange F :10K F3 :150LB F4 :PN16		O3 :3/8" 12 :1 1/4" O4 :1/2" 14 :1 1/2" O6 :3/4" 20 :2" O8 :1"	Blank :G N :NPT R :Rc		S7 :12VDC S9 :24VDC

How to order Repair kit

ZGPU225A	—	O3	N		
Repair kit	Port size	Diaphragm		Description	Qty.
ZGPU225A (Normally closed)	O3 :3/8", 1/2"	N :NBR		Plunger	1
ZGPU225AN (Normally open)	O6 :3/4", 1" 12 :1-1/4", 1-1/2" 20 :2"	V :VITON E :EPDM H :HNBR		Spring	2
				Diaphragm	1

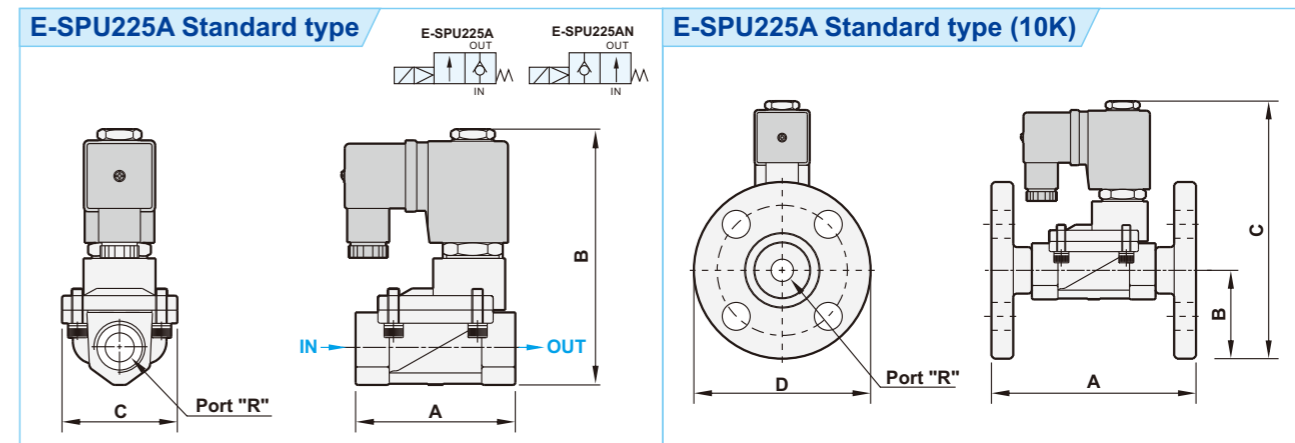
Specifications

Model	E-SPU225A-03	E-SPU225A-04	E-SPU225A-06	E-SPU225A-08	E-SPU225A-12	E-SPU225A-14	E-SPU225A-20
Port size	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Fluid	Compressed air (light oil, water)						
Orifice	Ø13mm		Ø25mm		Ø38mm		Ø50mm
Effective area	88mm ²		230mm ²		404mm ²	552mm ²	883mm ²
Acting	Pilot acting						
Diaphragm	VITON (Standard), NBR, EPDM (Option)						
Operating pressure range	0.5 ~ 10 kgf/cm ²						
Proof pressure	15 kgf/cm ²						
Body /Flange material	Stainless steel SUS316 / SUS304,SUS316						
Fluid temperature	-10°C ~ 90°C						
Ambient temperature	-10°C ~ 60°C						
Installation	Horizontal						
Duty cycle	100% ED						
Coil type	DIN						
Protection class	IP65 (DIN 40 050)						
Insulation class	F						
Voltage tolerance	±10%						
Standard voltage	12VDC, 24VDC						
Power consumption	Power save 75% = 3.7W(4.6W option)						
Net weight	775g		1550g		2820g		4665g

Seal material selection guide

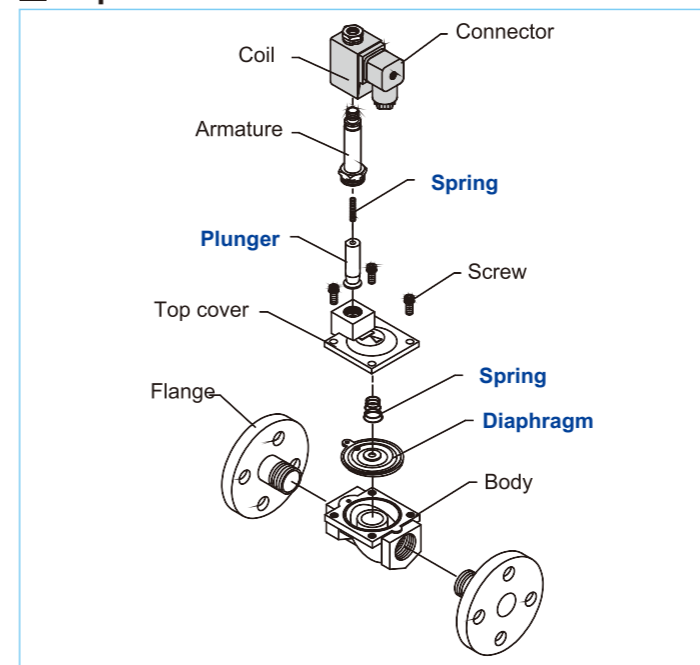
Seal	Temperature range	Suitable fluid	Unsuitable fluid
NBR	-15°C ~ 80°C	Air, Water, Neutral gases, Mineral oil	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel
HNBR	-40°C ~ 150°C	Air, Water, Gear oil, Engine oil	Pharmaceutical liquid, Gasoline and Hi-test gasoline, Light oil
VITON	-10°C ~ 180°C	Fuel oil, Gasoline and Hi-test gasoline, Diesel fuel	Hot water, Steam, Brake oil (ATE Blue)
EPDM	-5°C ~ 130°C	Hot water, Detergent liquid	Mineral oil, Gasoline

Dimensions



Model	R	A	B	C	D
E-SPU225A-03	3/8"	66.5	106.5	48	90
E-SPU225A-04	1/2"	66.5	106.5	48	95
E-SPU225A-06	3/4"	100	126.5	75	100
E-SPU225A-08	1"	100	126.5	75	125
E-SPU225A-12	1 1/4"	131.5	145.5	96	135
E-SPU225A-14	1 1/2"	131.5	145.5	96	140
E-SPU225A-20	2"	160	160.5	112	155

Explosion



Flow chart

