# 2/2 Way Solenoid Valve

Brass Series, Direct Acting

### **■** Features

- 1. Direct acting.
- 2. Quick response.
- 3. Timer for setting on/off time as optional accessory.
  4. Ex-proof coil is available, please refer to page 5-9, 5-10.
  5. Coil nut is available, please refer to page 5-1, 5-3.

#### How to order

PU220AR	V	_	01	1	N	_	<b>S1</b>	L	E1
Brass	Diap	hragm	Port size	Pressure	Thre	ad	Voltage	Led	Ex-Proof coil
Direct acting	Blank V E H	:VITON	02:1/4" 03:3/8"	Blank: Standard 1: High pressure 2: Medium pressure *High pressure & Medium pressure are only available for PU220AR-01 & PU220AR-02		:NPT :Rc	\$1:110VAC \$2:220VAC \$6:24VAC \$7:12VDC \$9:24VDC	Blank: W/O LED L:W/I LED	Blank: DIN E1:EX-proof 22mm width E2:EX-proof 30mm width E3:EX-proof CSA standard E4:EX-proof 36mm width PU220AR-03 is only available for E4 ex-proof coil.

## ■ How to order Repair kit

ZGPU220AR - 01 N				
Repair kit	Port size	Diaphragm		
	<b>01</b> :1/8", 1/4" <b>03</b> :3/8"	N:NBR V:VITON E:EPDM H:HNBR		

ZGPU220AR-01				
Description	Qty.			
Plunger	1			
O-ring	1			

ZGPU220AR-03				
Description	Qty.			
Plunger	1			
Orifice adaptor	1			
Diaphragm	1			
O-ring	1			

# Specifications

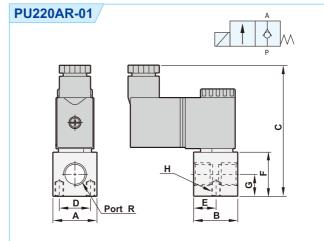
Model	PU220AR -01	PU220AR -011	PU220AR -012	PU220AR -02	PU220AR -021	PU220AR -022	PU220AR -03
Port size		1/8"			1/4"		3/8"
Fluid		Compressed air (light oil, water)					
Orifice	1.5mm	0.8mm	1.2mm	2.3mm	1.2mm	1.5mm	8.0mm
Effective area	1.8mm <sup>2</sup> 3.3mm <sup>2</sup>						20.64mm <sup>2</sup>
Acting			Direct	acting			Assisted lift
Construction			Gas	sket			Diaphragm
Operating pressure range AC	0~8.5 kgf/cm <sup>2</sup>	0~20kgf/cm <sup>2</sup>	0~16kgf/cm <sup>2</sup>	0~8.5kgf/cm <sup>2</sup>	0~20kgf/cm <sup>2</sup>	0~16kgf/cm <sup>2</sup>	0~8.5kgf/cm <sup>2</sup>
Operating pressure range DC	0~7 kgf/cm <sup>2</sup>	0~13kgf/cm <sup>2</sup>	0~10kgf/cm <sup>2</sup>	0~7kgf/cm <sup>2</sup>	0~13kgf/cm <sup>2</sup>	0~10kgf/cm <sup>2</sup>	0~7kgf/cm <sup>2</sup>
Proof pressure	10 kgf/cm <sup>2</sup>						
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	220VAC, 110VAC, 24VDC, the other voltage is optional						
Power consumption	AC: 6.0VA, DC: 4.8W				AC110V:17.6VA, AC220V:18.1VA, DC:15W (DC:18.5W option)		
Net weight		175g			255g		510g

### ■ Seal material selection guide

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

R

### **■** Dimensions



Model: PU220AR-02 Model: PU220AR-03 € 7							
■ Flow chart							
Н	M4xP0.7xL6.5	M5xP0.8xL7.0	M5xP0.8xL7.0				
G	7.5	12.7	11				
F	22	25.4	25				
Ε	11	17.5	27.5				
D	15	18	18				
С	72	75	79				

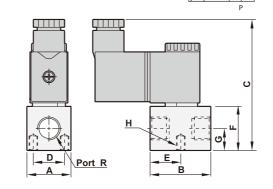
PU220AR-02

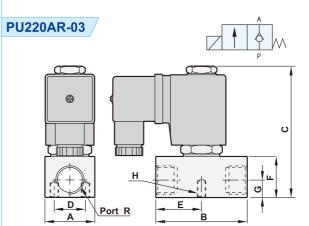
1/4"

25.4

35

# PU220AR-02





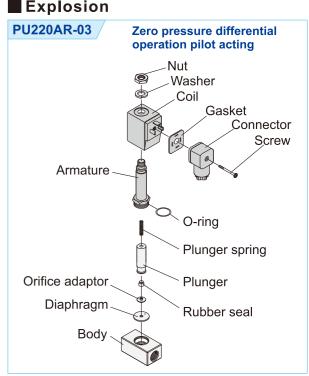
# **■** Explosion

PU220AR-01

1/8"

22

22



P4-4

(mm)

PU220AR-03

3/8"

30

55