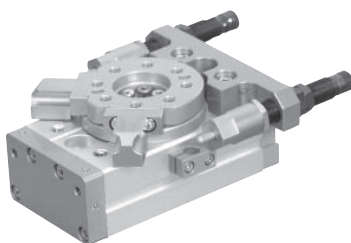


# ROTARY CYLINDER

## PRC-SH Series

### Features

NEW



- Standardize mounted external shock absorber on PRC-S Series, strong shock absorbing performance.
- High precise rotate angle adjust by direct turntable control.
- Increase the durability of shock absorber by using the shock absorber holder.
- High thrust with double piston and Rack & Pinion structure.
- Demonstrated same strong stopping power as rotation powered by external shock absorber structure
- Easy unification tube treat by hollow hole.
- Can select various range of auto switches. (Selectable options with magnetic and proximity sensor)

### Order Form

#### PRC 16SH - 90 - W - P S - PNP

① ② ③ ④ ⑤⑥ ⑦

⑤ Auto Switch specification

Symbol	Switch type	Length
A3	DSC APC(2-wire)	1m
A3L		3m
P	3-wire proximity sensor(body Length 32mm)	2m
P2	3-wire proximity sensor(body Length 16mm)	2m

⑥ Auto Switch quantity

Blank	2ea
S	1ea

⑦ Output of Proximity Sensor

Name	Output
Blank	NPN type
PNP	PNP type

① Series

② Bore size

Name	Bore size(mm)
16SH	16
20SH	20
25SH	25
30SH	30
40SH	40
50SH	50

③ Rotation angle 90°, 180°

④ Assembly Bracket for Proximity sensor (P or P2)

Blank	None
W	Mount

\* Sensor bracket is not necessary for using magnetic sensor (A3, A3L)

### Specification

Model	PRC16SH	PRC20SH	PRC25SH	PRC30SH	PRC40SH	PRC50SH
Bore size(mm)	16	20	25	30	40	50
Rotation angle(°)	90, 180 (Adjust range: ±3°)					
Cushion type(Shock Absorbing)	External Shock Absorber					
Effective torque(kgf · cm) <small>Note 2)</small>	2.5×P	4.8×P	8.2×P	14.8×P	31.7×P	74×P
Allowable energy(kgf · cm)	3.7	7	9	32	72	112
Maximum radial load(kgf) <small>Note 3)</small>	22	22	48	35	46	85
Maximum thrust load(kgf)	8.6	8.4	16	17	20	44
Rotation time(sec/90°)	0.2~0.9	0.2~1.2	0.3~1.2	0.3~1.4	0.3~1.5	0.5~1.5
Air port size	M5		PT1/8			
Air pressure(kgf/cm <sup>2</sup> )	3 ~ 7					
Lubrication	No need (if need, use one sort of turbine oil: SPEC ISOVG 32)					
Temperature(°C)	5~60					
Fluid	Clean air <small>Note 1)</small>					
Motion type(mm)	Double-acting type (Structure: Rack & Pinion type)					
Main body weight(kgf)	0.73	1.2	2.4	3.6	7.9	15.5

Note 1) Clean air: Fresh air containing solid matters with 0.3% of supersaturated moisture and 99.9% of liquid oil that passed through the 3-10 $\mu$ m degree of filtering

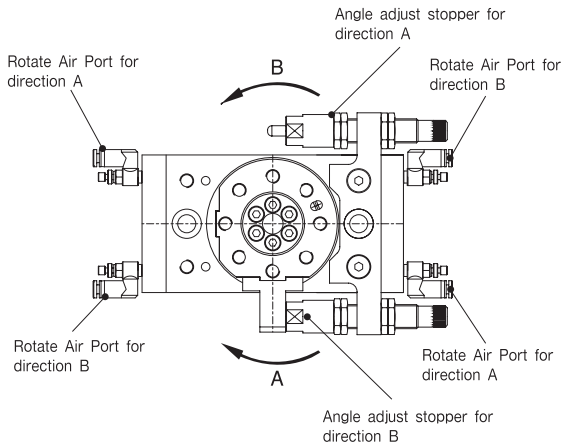
Note 2) P: Air pressure(kgf/cm<sup>2</sup>)

Note 3) Maximum radial load is allowable value at the end of turntable.

\* For detailed model selection method, please refer to page 516.

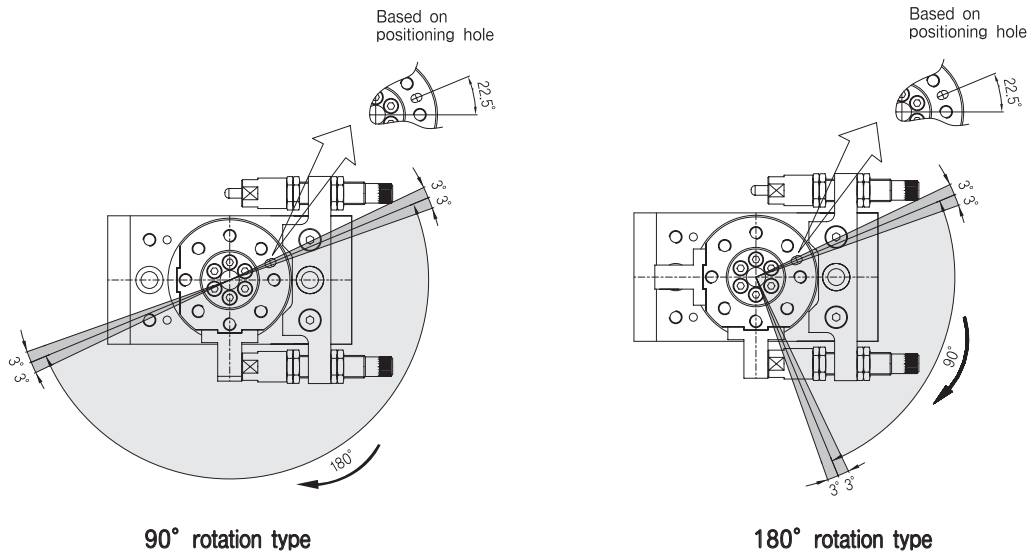


## Rotate direction



- ▶ Left figure shows stopper (Shock absorber) control position and air port position according to rotate direction.
- ▶ Rotation direction is marked based on the positioning hole in output shaft.
- ▶ Please note that the left and right side of Air Port is located opposite side of rotate direction.
- ▶ The Air port is assembled with a plug at the right port so that only the left port can be used at the time of releasing. If you need to use the right port, you can use after unplug basically assembled plug on the left port and assemble it on the right port.
- ▶ The angle adjustment stopper is set in random angle when it delivered, so please re-adjust it before use it as required angle.

## Rotation angle adjustment



90° rotation type

180° rotation type

- ▶ As shown in the figure, the rotation direction is turn the clockwise first, and then anticlockwise based on positioning hole.
- ▶ The maximum adjusting range of rotation angle is around  $\pm 3^\circ$  at the end of rotation. Caution that the stopper and shock absorber may get damaged when using exceed adjustable angle.
- ▶ The position angle where starts shock absorbing is about  $11^\circ \sim 16^\circ$  according to each standard model size.
- ▶ For smooth rotation motion, adjust the impact speed of shock absorber appropriately according to the workpiece size and rotation speed.

ROTARY

PRC

PRC-S

PRC-ST

PRC-SH

PRY-S

PRC-H

PRD

# PRC-SH Series

16

20

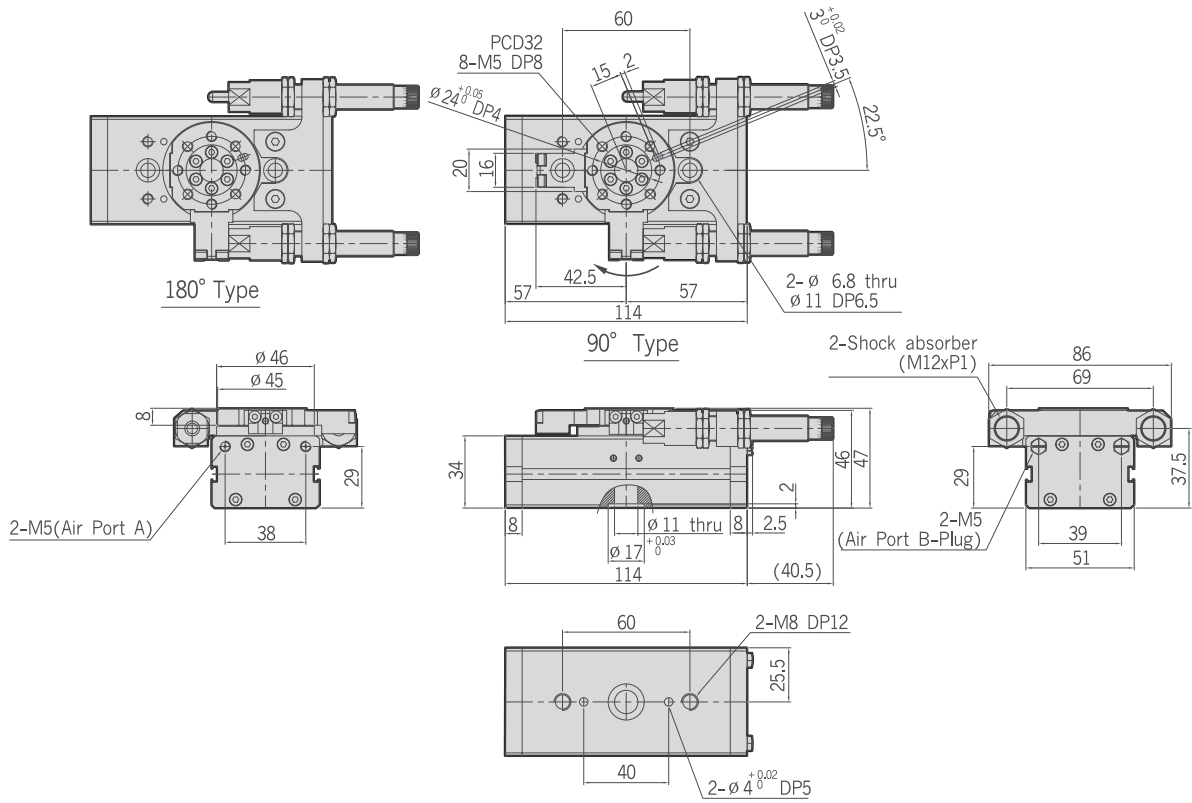
25

30

40

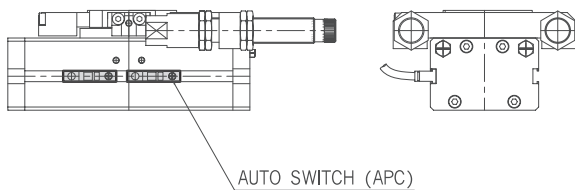
50

## PRC-16SH

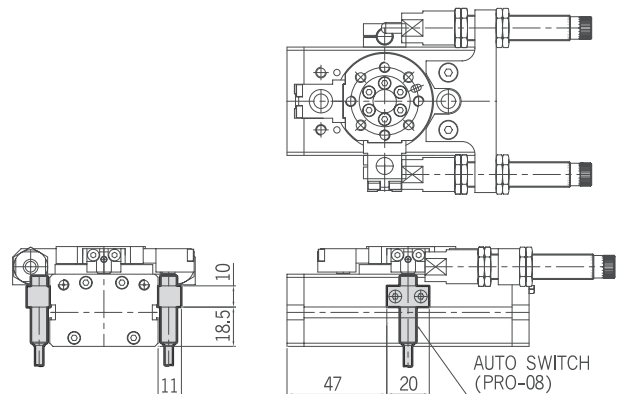


## PRC-16SH-Auto Switch

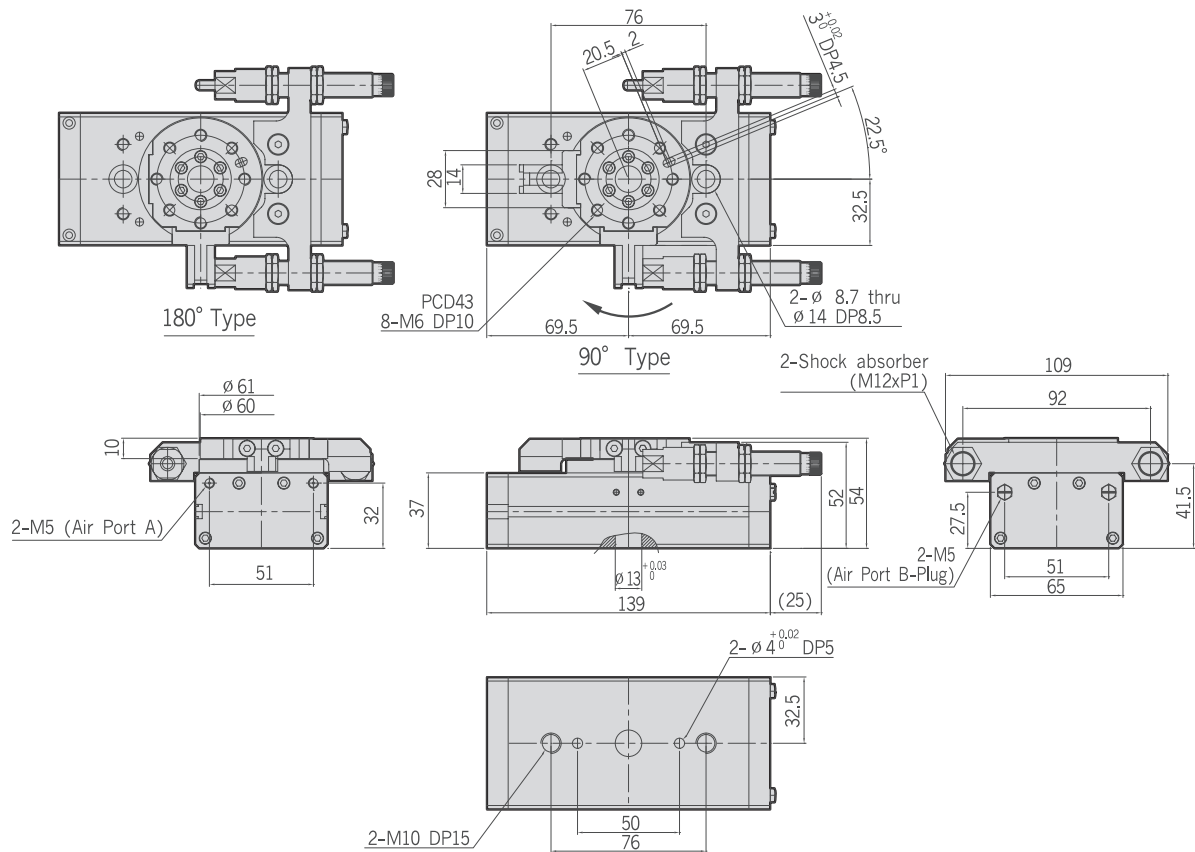
### 1. MAGNETIC SENSOR



### 2. PROXIMITY SENSOR

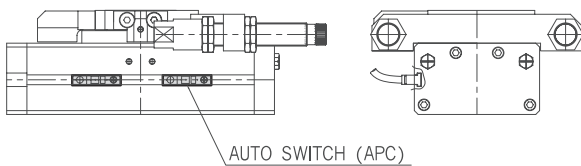


PRC-20SH

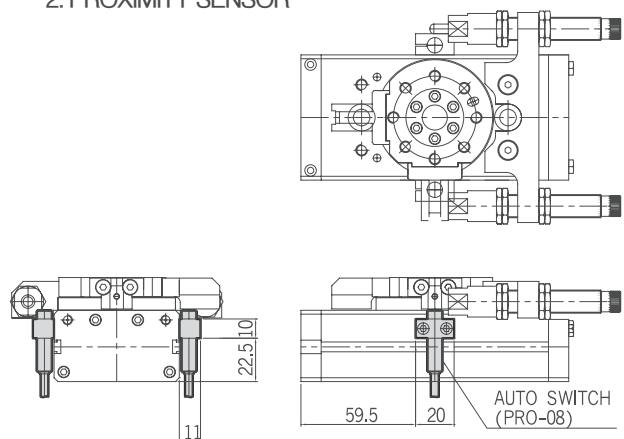


PRC-20SH-Auto Switch

1. MAGNETIC SENSOR



2. PROXIMITY SENSOR



ROTARY

- PRC
- PRC-S
- PRC-ST
- PRC-SH**
- PRY-S
- PRC-H
- PRD

# PRC-SH Series

16

20

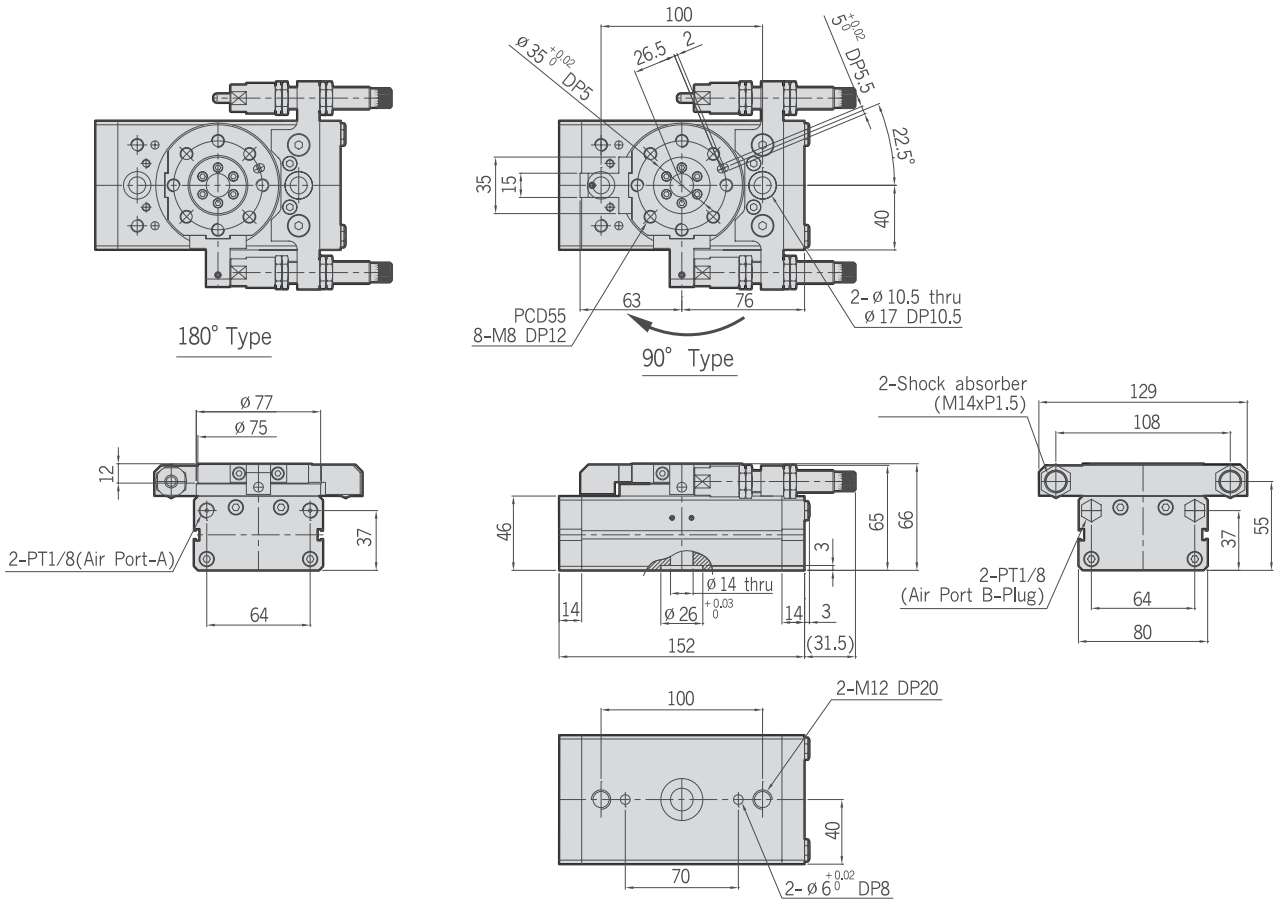
25

30

40

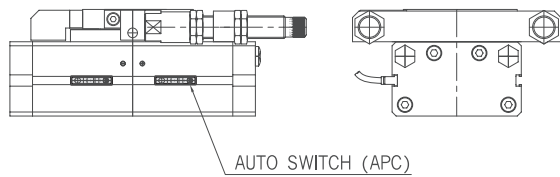
50

## PRC-25SH

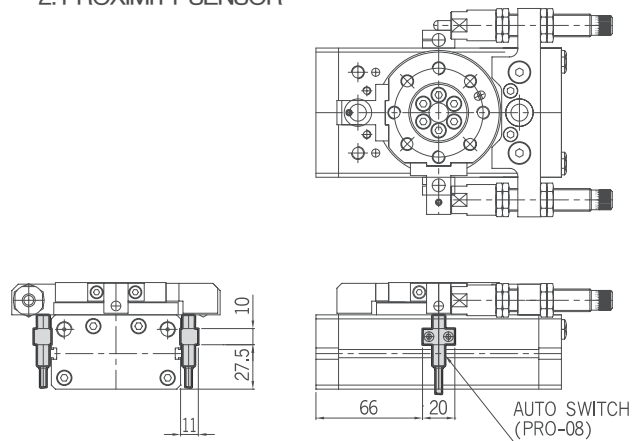


## PRC-25SH-Auto Switch

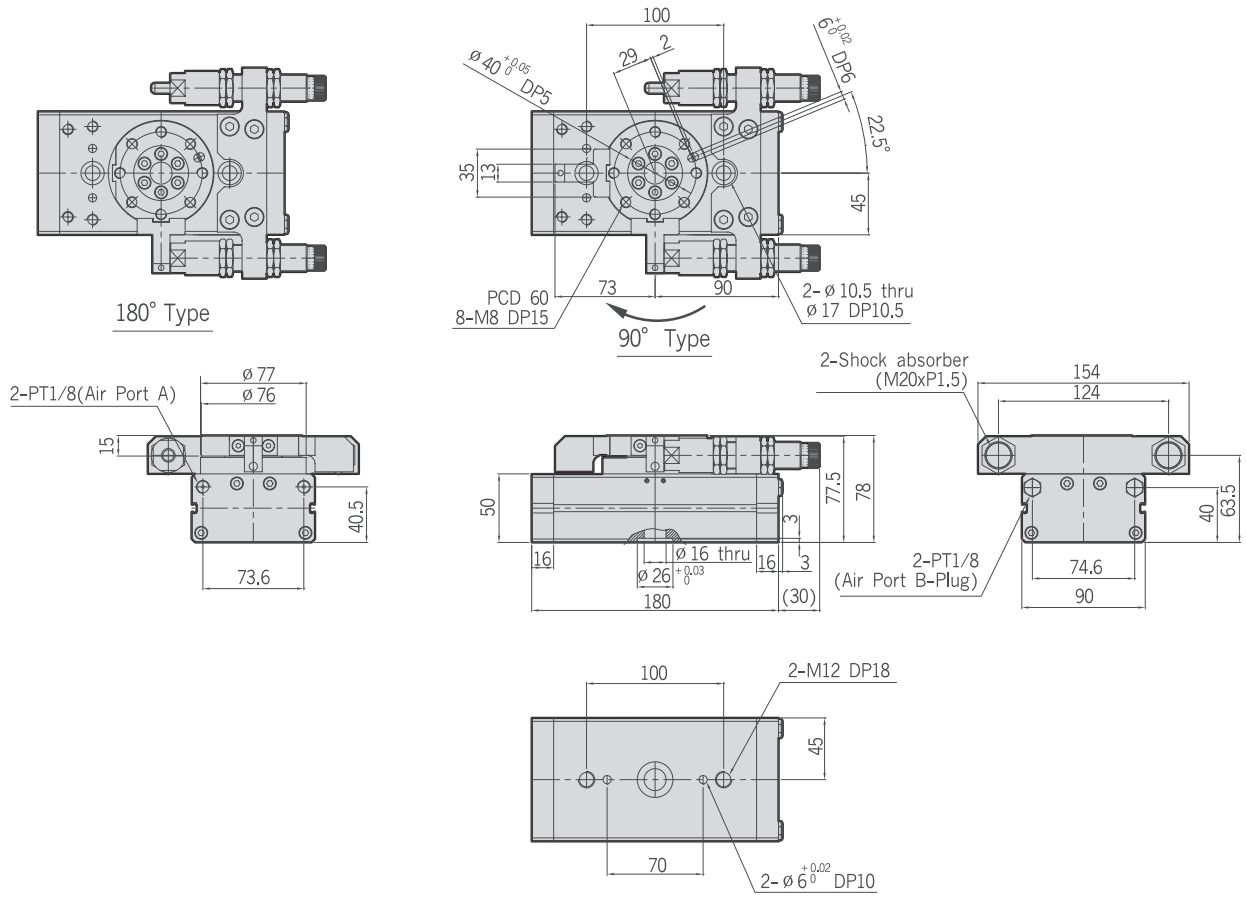
### 1. MAGNETIC SENSOR



### 2. PROXIMITY SENSOR

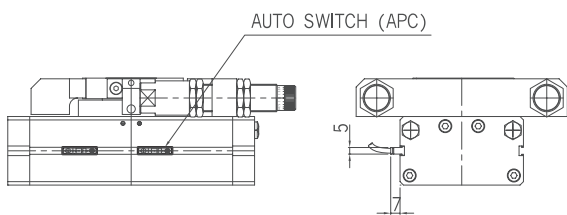


**PRC-30SH**

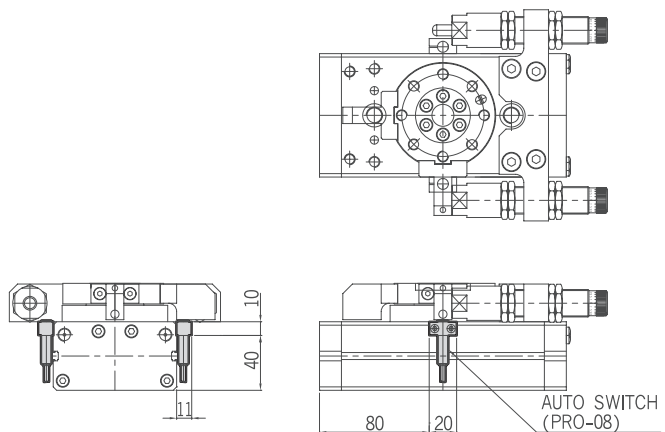


**PRC-30SH-Auto Switch**

1. MAGNETIC SENSOR



2. PROXIMITY SENSOR



- ROTARY**
- PRC
- PRC-S
- PRC-ST
- PRC-SH**
- PRY-S
- PRC-H
- PRD

# PRC-SH Series

16

20

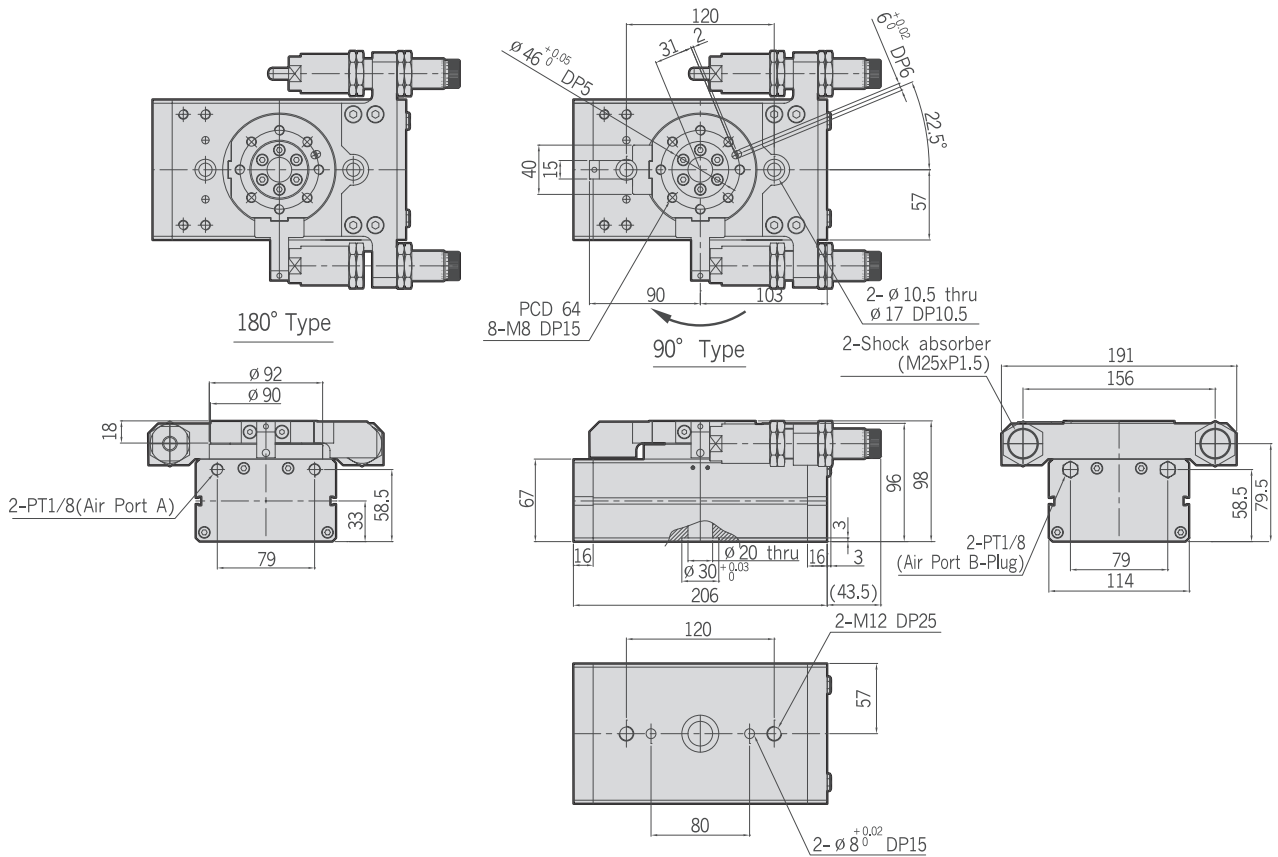
25

30

40

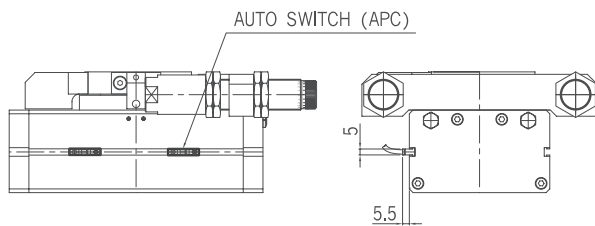
50

## PRC-40SH

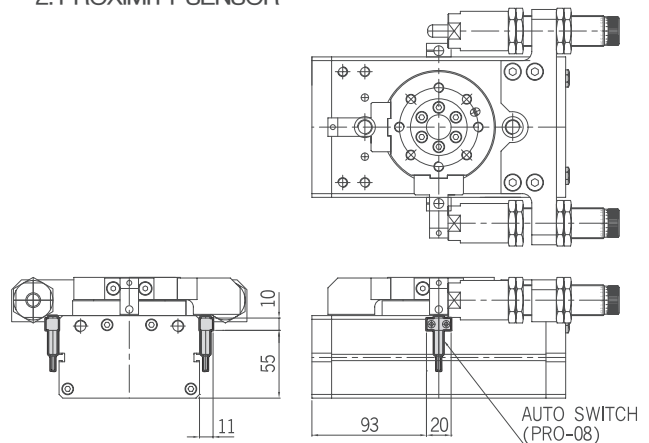


## PRC-40SH-Auto Switch

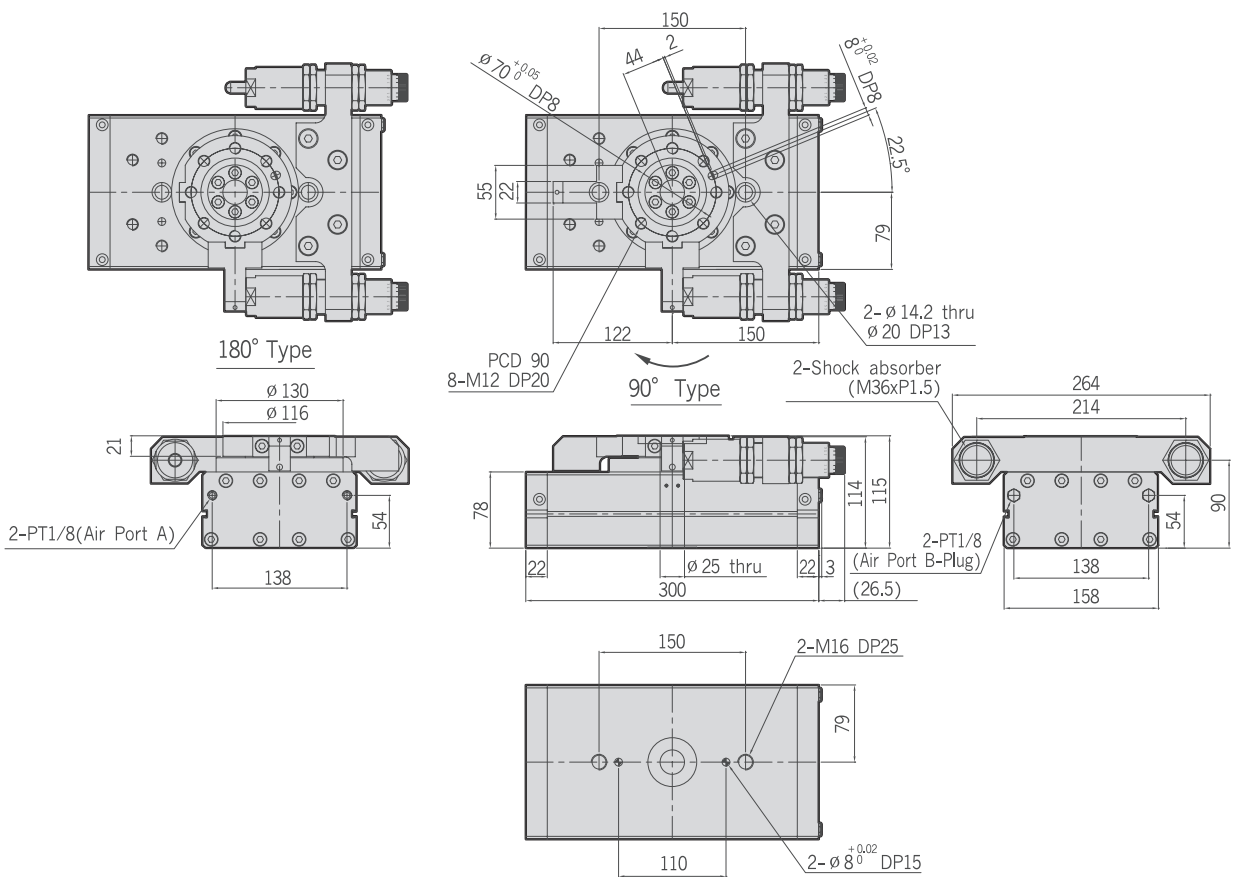
### 1. MAGNETIC SENSOR



### 2. PROXIMITY SENSOR

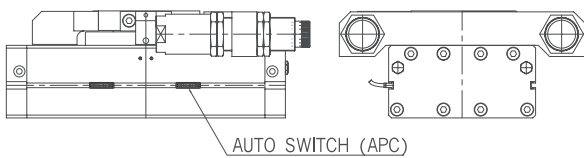


PRC-50SH

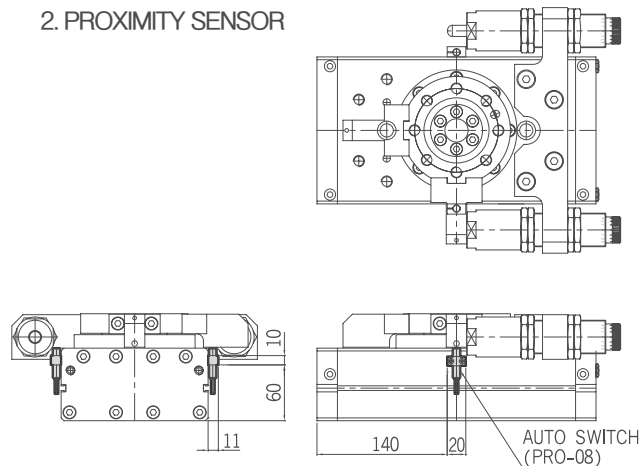


PRC-50SH-Auto Switch

1. MAGNETIC SENSOR



2. PROXIMITY SENSOR



- ROTARY
- PRC
- PRC-S
- PRC-ST
- PRC-SH
- PRY-S
- PRC-H
- PRD