

ROTARY CYLINDER

PRC-H Series

Features



- Rotary Cylinder, which converts motion to combined rotary motion along with the characteristics of air and oil by connecting 2 pistons with chain and centering output shaft.
- Smooth rotation even in low-speed with hydro check
- Even in fine oil leakage, eliminated back lash in rotation unit by built-in check valve
- Handling high movement with high load and high-solidity type structure
- Equipped with external stopper tool that allows rotation unit to perform high-accuracy positioning
- Wiring and piping enabled with hollow output shaft combined with other devices
- Auto Switch for the detection of position can be attached
- Applicable to Pick & Place for reversing work in FA assembly and feed line

Order Form

PRC 40H - 180 - W - P S PNP

① ② ③ ④ ⑤ ⑥ ⑦

⑤ Auto Switch specification

Blank	None
P	Distance proximity type (3-wire, 2m)

⑥ Auto Switch quantity

Blank	2ea
S	1ea

⑦ Output of Proximity Sensor

Symbol	Output
Blank	NPN type
PNP	PNP type

① Series
② Bore size

Name	Bore size(mm)
40H	40
60H	63
80H	80

③ Pitching angle 90°, 180°

④ Sensor bracket quantity

Blank	None
W	Mount

Specification

Model	PRC40H-90	PRC40H-180	PRC60H-90	PRC60H-180	PRC80H-90	PRC80H-180
Bore size(mm)	40		63		80	
Rotation angle(°)	90	180	90	180	90	180
Cusion angle(°)	One-sided angle 35° range					
Existence of cushion	Hydro cushion (adjustable)					
Effective torque(kgf · cm) <small>Note 2)</small>	28 × P		80 × P		171 × P	
Allowable energy(kgf · cm)	7.5		19		25	
Main body weight(kgf)	6.0	6.5	11.5	12	18.5	21
Air port size	PT1/8		PT1/4		PT1/4	
Maximum radial load(kgf) <small>Note 3)</small>	47		65		80	
Maximum thrust load(kgf)	14		19		24	
Rotation time(sec/90°)	0.5~2.5	0.7~3.0	0.7~3.5	1.0~4.0	1.5~4.0	2.0~5.0
Fluid	Clean air <small>Note 1)</small>					
Air pressure(kgf/cm ²)	3 ~ 7 (General resistance pressure: 10.5) <small>Note 4)</small>					
Lubrication	No need (if need, use one sort of turbine oil: SPEC ISOVG 32)					
Temperature(°C)	5 ~ 60					
Motion type	Double-acting type (Structure: Rotary motion hydro checker principle by chain and sprocket Wheel)					

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 μ m degree of filtering

Note 2) P: Air pressure(kgf/cm²)

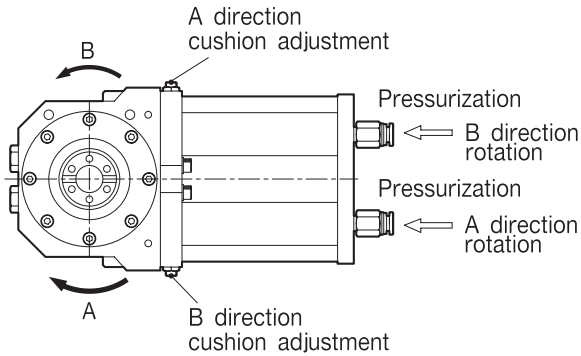
Note 3) Radial load is allowable value at the end of output shaft.

Note 4) Guaranteed capacity of resist pressure: A pressure that does not cause an abnormality in parts when it is applied for 1 minute without any weight loaded.

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



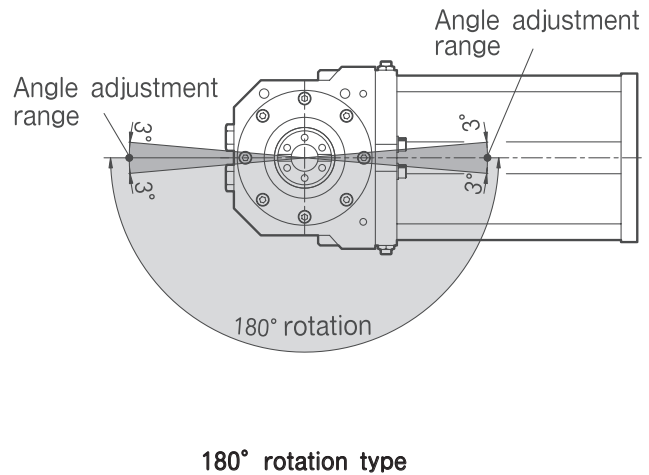
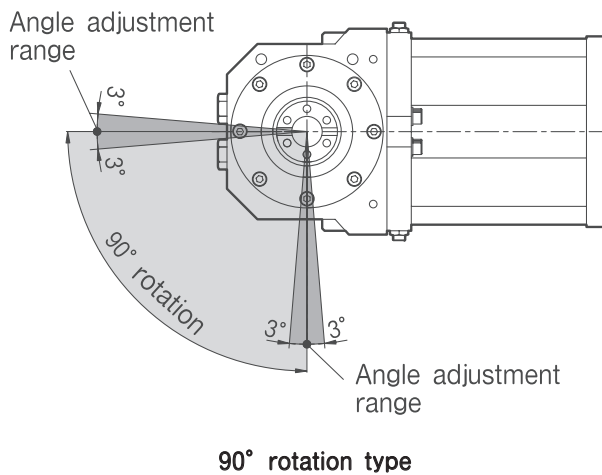
Rotation direction / Cushion adjustment



- ▶ Left figure shows pressurized port position and stopper control position by each rotational direction.
- ▶ Rotation direction is marked based on the positioning hole in output shaft.
- ▶ Turning cushion adjustable needle clockwise makes shock buffer speed slower, while tuning counter-clockwise make shock buffer speed faster. Please adjust it in optimal state according to the size and shape of load.

- ▶ Caution: Improper cushion adjustment or long time storage with overload may cause damage to internal parts due to natural evaporation of internal oil or oil leakage.
- ▶ Excessive looseness of cushion adjustable needle may cause oil leakage or damage to internal parts. Adjust it within the specified resistance range.

Rotation angle adjustment



- ▶ Side stopper angle can be adjusted within range at the end of rotation with the control of side stopper as shown in figure.
- ▶ Rotation direction is marked based on the key groove in figure.
- ▶ Angle adjustment Stopper is set at a random position within the adjustment range of rotary angle. Readjust it as required for use.

Cylinder type	Angle adjustment range at the end of rotation
PRC□H-90	±3°
PRC□H-180	

ROTARY

PRC

PRC-S

PRC-ST

PRC-SH

PRY-S

PRC-H

PRD

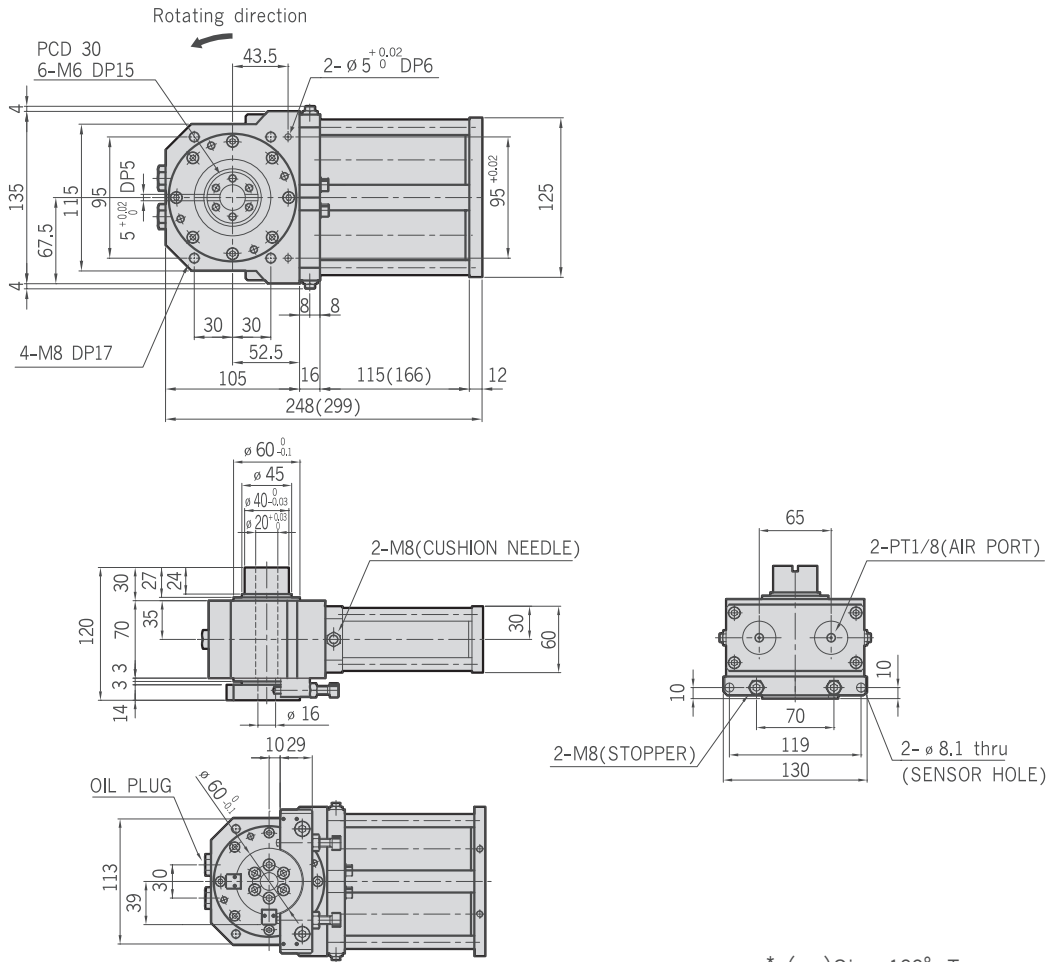
PRC-H Series

40

60

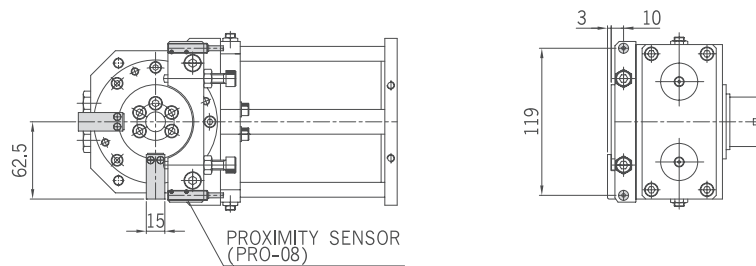
80

PRC40H

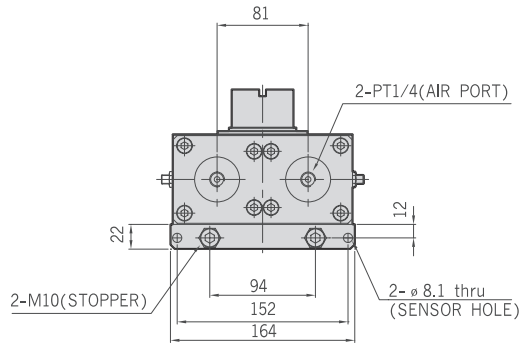
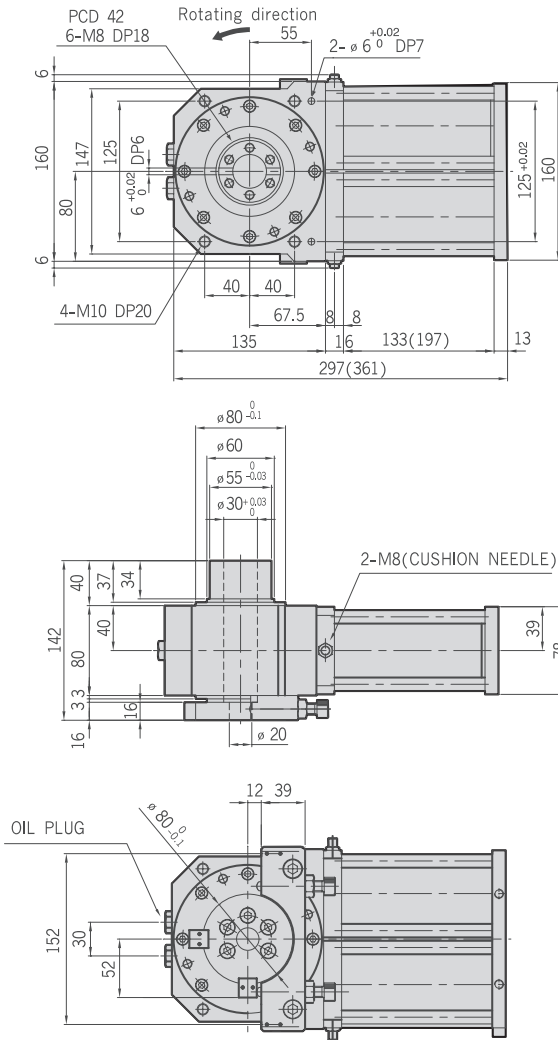


* () Size 180° Type

PRC40H-Auto Switch

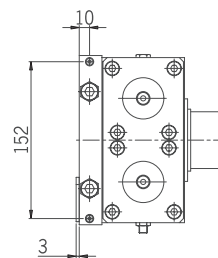
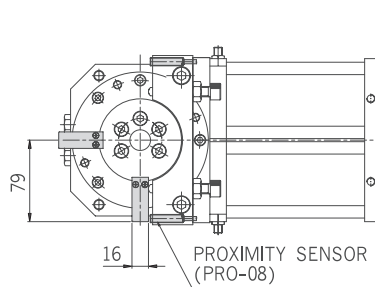


PRC60H



* ()Size 180° Type

PRC60H-Auto Switch



ROTARY

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



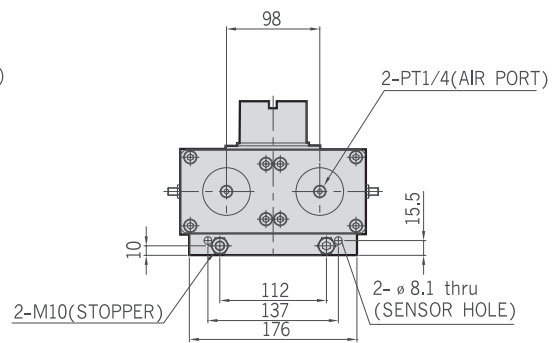
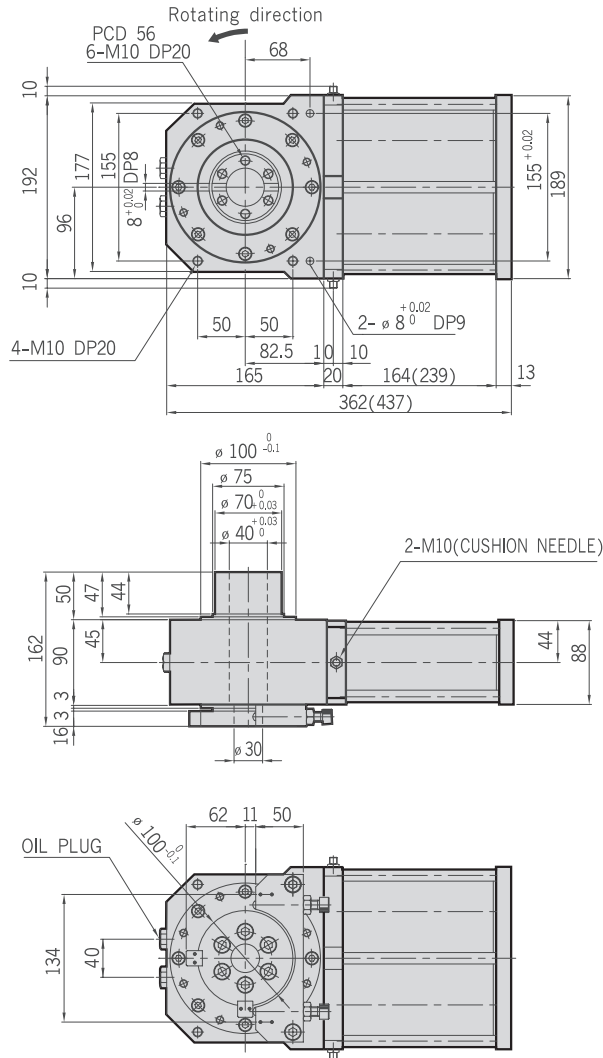
PRC-H Series

40

60

80

PRC80H



* () Size 180° Type

PRC80H-Auto Switch

