

Boosters

AHS

Single Pressure Type

AHD

Dual Pressure Type



- The UNIMEC booster is an efficient way of generating high pressure hydraulic fluid.
- Designed to save energy, time, space and money in a wide variety of applications.
- These abilities and benefits of boosters make them the ideal component in many applications, you can use them for such operation as marking, forming, punching riveting, shearing, steering, straightening, embossing, welding and testing.

Specification

Type	Single pressure type			Dual pressure type		
	AHS078	AHS110	AHS250	AHD078	AHD110	AHD250
Intensified pressure ratio	7.8	11	25	7.8	11	25
Generated hydraulic pressure (MPa)	5.3	7.6	17.2	5.3	7.6	17.2
Discharging volume (cc)	50	120	120	50	120	120
Ambient temperature (℃)	+5~+60			+5~+60		
Working pressure range (MPa)	0.2~0.7			0.2~0.7		
Driving fluid	Hydraulic work oil viscosity					
Mounting form	Side foot type			Side foot type		

How to order


AHD
Type

110
Intensified pressure ratio

LN02A
Sensor switch

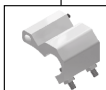
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Quantity

2



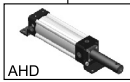
AHS

078—7.8
110—11
250—25



LN02A: Suited for AH_078
LN03A: Suited for AH_110
AH_250

1: 1pc
2: 2pcs



AHD

Note:
1.Can choose NPN or PNP type (3-Wire type, 24VDC).
2.Can choose plug-in cable.
3.For details see page 4-1.1.

The method of calculation (Booster consumption)

Intensified pressure ratio $R = (7.8, 11, 25)$

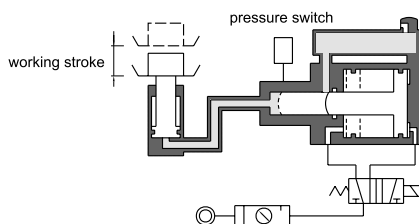
Piston area $A = (\text{Bore})^2 \times \frac{\pi}{4} \text{ mm}^2$

Working pressure $P2 = R \times P$ (Air pressure, MPa)

Cylinders' force $F = A \times P2 = \text{___ N}$

Single Pressure Booster:

Optimum for high output, short stroke cylinder.



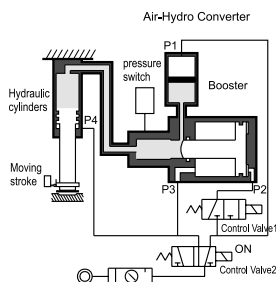
Points in usage

- The booster must be levelled.
- Standard booster are designed for use with petroleum base hydraulic oil.
- The booster must be higher than the work cylinder.
- Frequency of use should be 6 times / min or lower.

Dual pressure booster

① Quick traverse

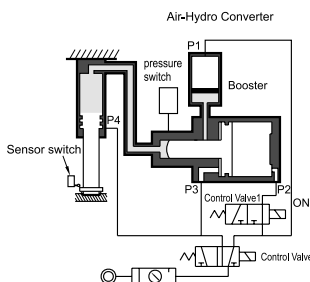
Control Valve 2 ON:



When the air is charged from the port P1, the oil in the tank will forward the hydraulic cylinder quickly. The pressure is the same as the air pressure, but the inflow of oil is large in volume.

② Intensified feeding

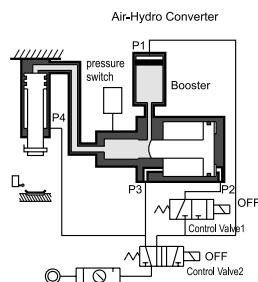
Control Valve 1 ON:



When the air is charged from the port P2, a ram will advance, the highly pressured fluid will come in to the hydraulic cylinder which will be forwarded by large thrust.

③ Swift reverse

Control Valve 1,2 OFF:



When the air is sent into port P4 and P3, the hydraulic cylinder is swiftly reversed, and at the same time the ram goes back.

Compressed air consumption

(ϵ / min)

Booster	Air pressure (MPa)					
	0.2	0.3	0.4	0.5	0.6	0.7
AHS078	2.40	3.19	3.98	4.78	5.56	6.36
AHD078	2.40	3.19	3.98	4.78	5.56	6.36
AHS110	7.58	10.07	12.57	15.07	17.57	20.06
AHD110	7.58	10.07	12.57	15.07	17.57	20.06
AHS250	18.09	24.06	30.02	35.99	41.95	47.92
AHD250	18.09	24.06	30.02	35.99	41.95	47.92

How to order the seal kit

Type	Code
AHS078	AHSSK078
AHD078	AHDSK078
AHS110	AHSSK110
AHD110	AHDSK110
AHS250	AHSSK250
AHD250	AHDSK250

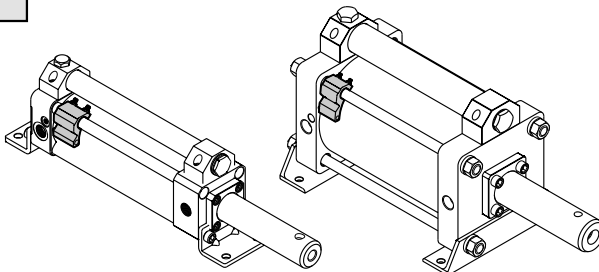
Installation of sensor switches

Type	Sensor switch
AHS(D)078	LN02A
AHS(D)110	LN03A
AHS(D)250	LN03A

Booster weight

Unit: kg

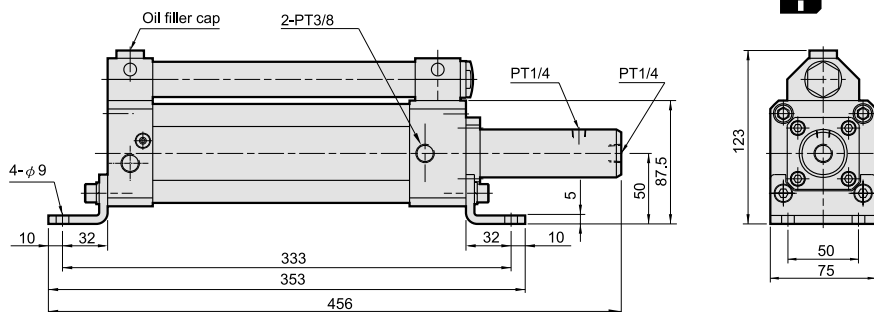
Type	AHS	AHD
078	3.4	3.1
110	10.1	9.1
250	20	18



Dimensional features

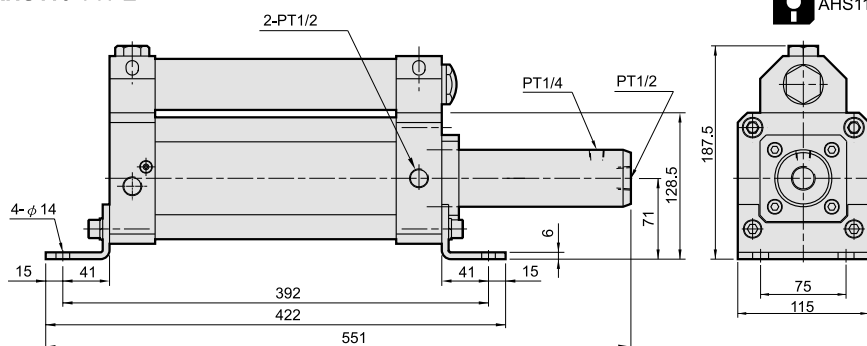
● AHS078 TYPE

 AHS078



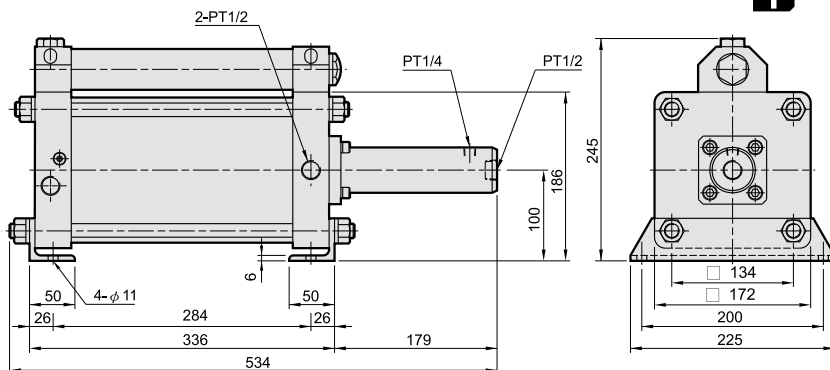
● AHS110 TYPE

 AHS110



● AHS250 TYPE

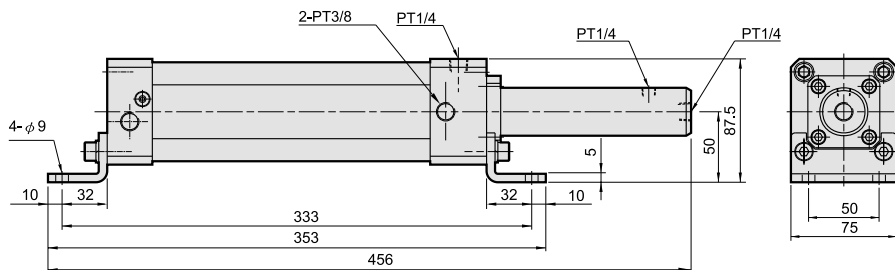
 AHS250



Dimensional features

● AHD078 TYPE

 AHD078



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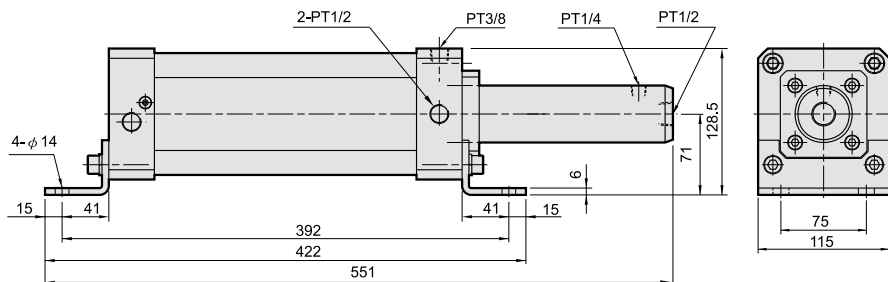
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AH

AP

● AHD110 TYPE

 AHD110



● AHD250 TYPE

 AHD250

