



# Planetary Gearbox AM-28P Series

**ASSUN MOTOR**

2017 edition. Specifications are subject to change without notice.

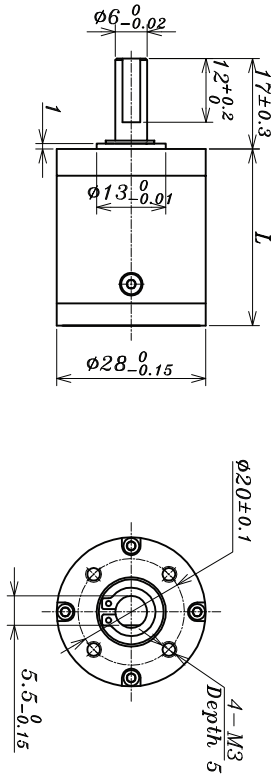
## GEARBOX CHARACTER

<b>GEAR TYPE</b>	Straight teeth	<b>AVERAGE BACKLASH NO LOAD</b>	<2°
<b>OUTPUT SHAFT</b>	Stainless steel hardened	<b>RADIAL PLAY</b>	<0.1
<b>MAIN GEAR</b>	alloy steel	<b>PERMISSIBLE AXIAL LOAD</b>	<80N
<b>RING GEAR</b>	Steel	<b>PERMISSIBLE FORCE FOR PRESS FITS</b>	<150N(5mm from mounting face)
<b>ADAPTER PLATE</b>	Aluminium alloy	<b>RECOMMENDED INPUT SPEED</b>	<8000RPM
<b>BEARING AT OUTPUT</b>	Ball bearing	<b>OPERATING TEMPERATURE RANGE</b>	-20°C ~ +50°C
<b>AXIAL PLAY</b>	0~0.3	<b>OPERATING HUMIDITY RANGE</b>	10~90%RH
<b>DIRECTIONS</b>	CW/CCW		

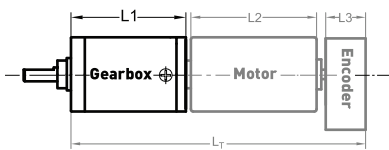
## GEARBOX DATA

NUMBER OF STAGE	1		2		3		4			
<b>REDUCTION RATIO</b> X:1	3.4	12	18	28	40	74	129	296	534	1016
	3.8	13	19	29	45	85	152	327	637	1136
	4.4	15	20	35	50	95	184	375	760	1304
	5.3	17	23	44	56	106	233	405	860	1556
	6.7		26		65	121	296	447	965	1975
<b>REDUCTION RATIO ABSOLUTE</b>	24/7	576/49	18/1	441/16	13824/343	189/2		85169/288		194481/256
	23/6	92/7	484/25	88/3	2208/49	3381/32		122452/375		7744/9
	22/5	529/36	16//18	35/1	1053/21	4851/40		234256/625		15435/16
	21/4	253/15	231/10	400/9	12167/2	1936/15		25921/64		64000/63
	20/3		230/9		5819/90	3200/21		53361/100		92000/81
					5566/75	735/4		101871/160		35200/27
					10648/125	700/3				14000/9
						8000/27				160000/81
<b>GEARBOX LENGTH "L"</b> (mm)	28.8		34.9		41.7		47.8			
<b>RATED TORQUE</b> (Kgf.cm)	13		17.5		21.5		26			
<b>BREAKING TORQUE</b> (Kgf.cm)	40		53		65		78			
<b>GEARBOX EFFICIENCY</b>	93%		86%		80%		75%			
<b>MOMENT OF INERTIA RANGE</b> (g.cm <sup>2</sup> )	1		0.9		0.6		0.6			
<b>GEARBOX WEIGHT APPROX</b> (g)	78		102		126		149			
<b>GEARBOX MODEL</b>	AM-28PA-X-01		AM-28PB-X-01		AM-28PC-X-01		AM-28PD-X-01			

"X" Stand for RATIO



## AM-28P EXAMPLE OF COMBINATION



Recommend Motor:

Coreless Motor  
AM-CL2532MA/B  
AM-CL2545MA/B  
AM-CL2831MA/B  
AM-CL2845MA/B

Brushless Motor  
AM-BL2845A/B  
AM-BL2453A/B

Recommend Encoder:

Suitable for Coreless Motor  
Encoder S: AM-EN16-S\*\*\*  
2 ~ 3 Channels

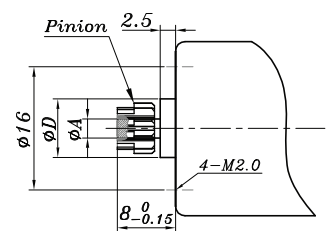
Suitable for Brushless Motor

Encoder S: AM-EN16-S\*\*\*  
2 ~ 3 Channels  
Encoder T: AM-EN24-T\*\*\*  
2 ~ 3 Channels

## INPUT GEAR DATA

<b>MODULUS</b>	0.4				
<b>PRESS ANGLE</b>	20°				
<b>TEETH NUMBER</b>	9	12	15	18	21
<b>MAX GEAR HOLE "A"</b>	1.5	2.3	3.0	4.0	
<b>MAX MOTOR SHAFT</b>	1.5	2.3	3.0	4.0	
<b>MOTOR DIMENSION "D"</b>	10.0				

## MOTOR DIMENSION



## GEAR MOTOR LENGTH "LT"

GEAR MOTOR LENGTH LT				
<b>GEARMOTOR LENGTH L1</b>	28.8	34.8	41.7	47.8
<b>MOTOR LENGTH L2</b>	32	45	31	53
<b>ENCODER LENGTH L3</b>	12	11.3	10.7	10

For more motor and encoder specs, see Assun Motor website.

## REMARKS

Clients can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.

Motor Data Tested at 25°.

Motor Operation exceeds continuous limits of operating range will compromise the life of the device.