Hand-wheel Gear Box - ALXL Series Gear Operator

Design

Armed with the idea of the small in volume, light in weight and novel in pattern, we designed and developed the XLHJ series gear operators which are wildly applied in the area of valve automation control. These kinds of products were specially designed used for butterfly valve, ball valve and plug valve together with ALPHA series pneumatic actuator.

Feature

1, Easy connection: There are two keyway apart 90¡ãin the inner hole of worm gear so as to be convenient for customer to choose relative position between gear operator and valve.

2, Easy operating: Pull out the position pin and rotate off center device with 180¡ãto realize pneumatic drive by positioning pin acted or to realize manual drive in the opposite way.

3, Dustproof and waterproof : The gear operator is filled with special lubricant before leaving the factory. It is solid sealed with valve after installation possessing dustproof and waterproof function with protecting grade IP65.

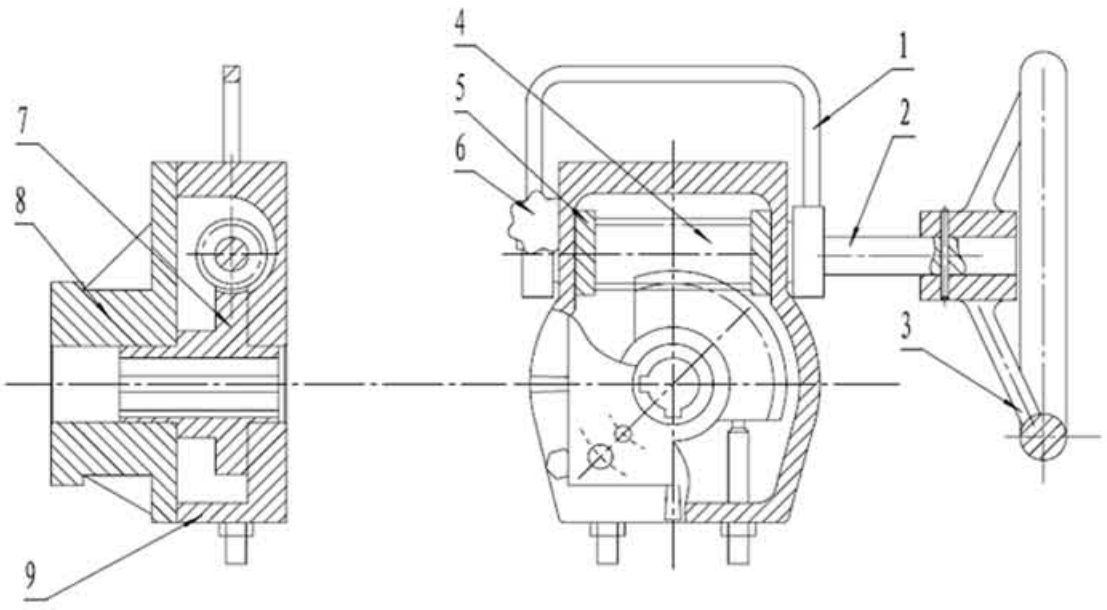
4, Many Output torques: It consists of a series of products, so output torque matches with all kinds of pneumatic devices and valves.

Operating principle

1, Assembling procedures: The bottom of gear operator should be connected with valve, bracket surface connected with cylinder (actuator), valve stem go through the inner hole of worm gear and the square on the end of stem matches with square hole of cylinder (actuator).

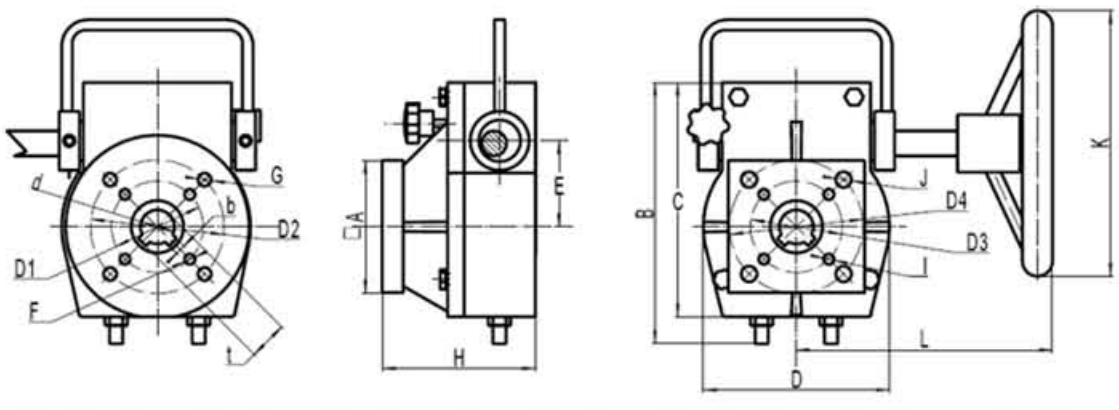
2, Operating procedures: The cylinder (actuator) drives valve stem and worm gear rotating together when pneumatic drive and worm shaft meshes with worm gear to drive valve stem rotating along with piston of cylinder (actuator) moving when manual drive. When pneumatic drive, pull out the pneumatic drive by worm gear rotating following with pneumatic valve stem. Just make the worm shaft mesh to realize manual drive.

Material and Parts



No	Part	Qty	Material	Optional material
1	Handle	1	Carbon steel	
2	Worm shaft	1	45 GB699-88	
3	Hand wheel	1	HT200 GB9439-88	WCB GB12229-88
4	Worm	1	45 GB699-88	
5	Off-center sleeve sub-assembly	1	Carbon steel	
6	Positioning screw	1	Carbon steel	
7	Worm gear	1	QT500-7 GB1348-88	
8	Bracket cap	1	HT200 GB9439-88	WCB GB12229-88
9	Body	1	HT200 GB9439-88	WCB GB12229-88

Dimension



Model	d	b	t	D1	F	D2	G	A	H	E	D3	I	D4	J	K	L	B	C	D
ALXL26:1	22	6	25.4			70	M8	70	99	50.5			70	Ø 9	Ø200	155	160	145	110
ALXL38:1	26	8	29.3	70	M8			100	117	65	70	Ø9			Ø200	195	195	175	140
	38	10	41.3			102	M10	110					102	Ø12					
ALXL54:1	38	10	41.3	125	M12			130	118	85	125	Ø14			Ø300	205	235	215	180
	48	14	51.8			140	M16						140	Ø18					
ALXL80:1	48	14	51.8	140	M16			156	148	124	140	Ø18			Ø400	245	320	298	250
	60	18	64.4			165	M20						165	Ø22					
ALXL78:1	60	18	64.4	165	M20			220	150	142	165	Ø22			Ø600	265	360	340	285
	80	18	84.4																
ALXL98:1	80	18	84.4	165	M20			230	195	229	165	Ø22			Ø800	410	550	530	460
ALXL100:1	100	20	105.3	254	M16			300	195	258	254	Ø18			Ø800	430	605	585	520
ALXL118:1 I	120	32	129.3	356	M30			Ø445	250	391	356	Ø32			Ø1000	550	900	870	800
ALXL118:1 II	180	45	196	483	M36			Ø600	275	390	483	Ø39			Ø600	600	1050	900	850

Specification and output torque

No	Model	Gear Ratio	Input Torque(Nm)	Output Torque(Nm)	Weight(Kg)
1	ALXL26	26:01:00	70	300	7.3
2	ALXL38	38:01:00	60	550	11.8
3	ALXL54	54:01:00	120	1200	17.3
4	ALXL80	80:01:00	140	2000	35
5	ALXL78	78:01:00	200	3600	48.2
6	ALXL98	98:01:00	300	9000	156
7	ALXL100	100:01:00	400	13000	190
8	ALXL118	118:01:00	900	22100	540