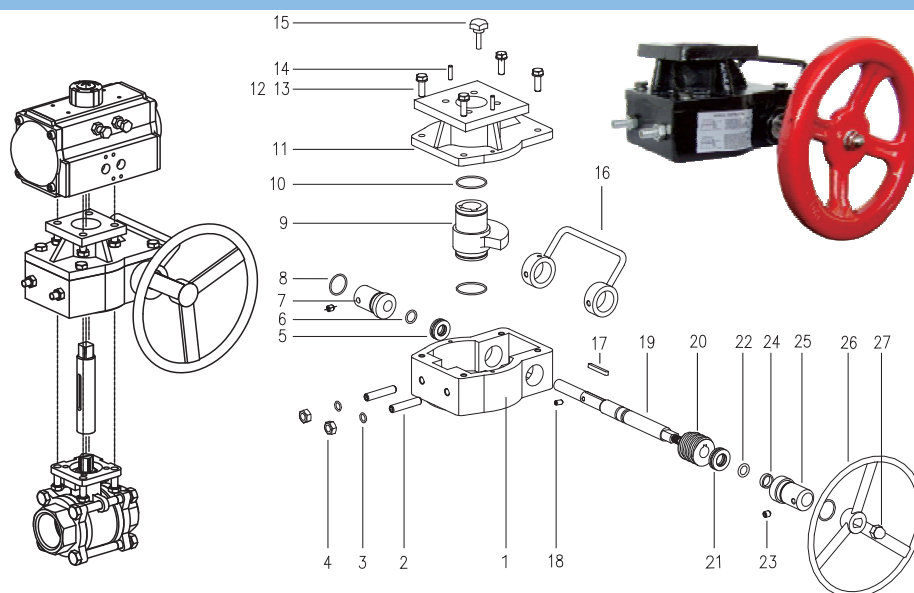


Introduction Declutch Override Gear Box

The ALXL series declutch override gear box is specially designed for butterfly valves, ball valves and plug valves together with pneumatic actuators.

This device allows manual operation during installation, system testing and in the event of air-supply failure. The ALXL Series mounts directly to most of the popular rack and pinion style actuators on the market, and does not require a bracket between the pneumatic actuator and declutch override. The unit comes completely with a coupler that connect the pneumatic actuator to the valve.

Structure & Parts and Material & Installation



Material

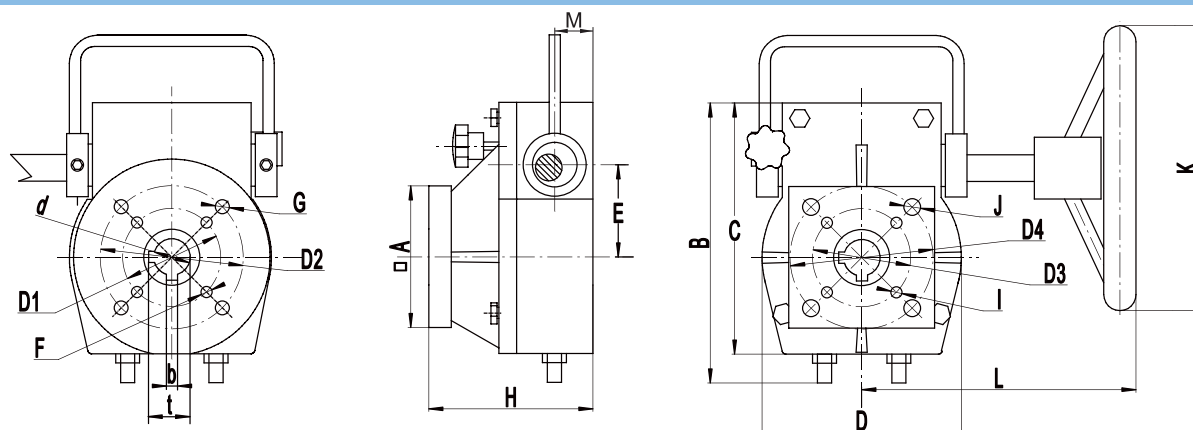
NO.	Description	Qty.	Material	option	NO.	Description	Qty.	Material	option
1	Body(for size of 26,38,54)	1	Die casting Aluminum with epoxy coated	PTFE coated (for size of 26,38,54,78,80)	14	Pin	2	Carbon steel	
	Body (for size of 78,80,98,100,118)		Casting iron with epoxy coated		15	Lock handle screw	1	SS304	
2	Adjust screw	2	SS304		16	Clutch lever	1	Carbon steel with electric polyester coated	PTFE coated
3	O-ring(Adjust screw)	2	NBR		17	Key	1	Carbon steel	
4	Nut(Adjust screw)	2	SS304		18	Screw	1	Carbon steel	
5	Needle bearing	1	Carbon steel		19	Worm shaft	1	Carbon steel with electric polyester coated	SS304
6	O-ring	1	NBR		20	Worm	1	Carbon steel	
7	Eccentric bushing (1)	1	Carbon steel with electric polyester coated	SS304	21	Needle bearing	1	Carbon steel	
8	O-ring(eccentric bushing)	2	NBR		22	O-ring	1	NBR	
9	Worm gear	1	Casting iron(QT500-7GB1348-88)		23	Screw	2	Carbon steel	SS304
10	O-ring (Worm gear)	2	NBR		24	Bearing	1	Polyoxymethylene	
11	Bracket cap (for size of 26,38,54)	1	Die casting Aluminum with epoxy coated	PTFE coated (for size of 26,38,54,78,80)	25	Eccentric bushing (2)	1	Carbon steel with electric polyester coated	SS304
	Bracket cap (for size of 78,80,98,100,118)		Casting iron with epoxy coated		26	Handle wheel	1	Carbon steel with epoxy coated	
12	Screw	4	SS304		27	Cap nut	1	Carbon steel	SS304
13	Thrust washer	4	SS304						

*The body and bracket cap is sealed by Oil resistant silicone sealant.

Specification and Output Torque

No.	Model	Gear Ratio	Input Torque(Nm)	Output Torque(Nm)	Weight(Kg)
1	ALXL26	26:1	70	300	4
2	ALXL38	38:1	60	550	5.5
3	ALXL54	54:1	120	1200	9
4	ALXL80	80:1	140	2000	31
5	ALXL78A	78:1	200	3600	44
6	ALXL98	98:1	300	9000	135
7	ALXL100	100:1	400	13000	190

Dimension



Note: This diagram shows off position

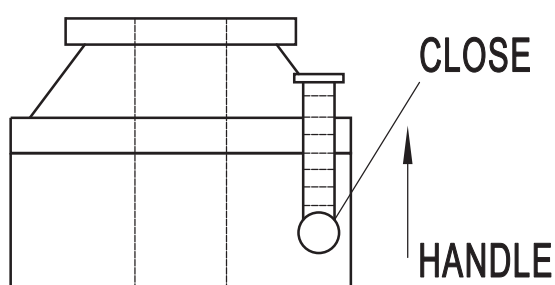
Model	d	b	t	ΦD1	F	ΦD2	G	A	H	E	ΦD3	I	ΦD4	J	K	L	M	B	C	D
ALXL26:1	22	6	24.8	50	M6			70	100	50.5	50	Φ7			Φ140	135	33	160	115	88
				50	M6	70	M8				50	Φ7	70	Φ9	Φ140					
						70	M8						70	Φ9	Φ180					
ALXL38:1	26	8	29.3	70	M8			100	118	65	70	Φ9			Φ200	195	30	195	167	140
	38	10	41.3			102	M10	110					102	Φ12						
ALXL54:1	38	10	41.3	125	M12			130	120	85	125	Φ14			Φ280	210	31	235	210	175
	48	14	51.8			140	M16						140	Φ18						
ALXL80:1	48	14	51.8	140	M16			156	148	124	140	Φ18			Φ400	260	40	320	295	245
	60	18	64.4			165	M20						165	Φ22						
ALXL78:1	60	18	64.4	165	M20			220	150	142	165	Φ22			Φ500	265	42	360	340	285
	80	22	85.6																	
ALXL98:1	80	22	85.6	165	M20			230	195	229	165	Φ22			Φ800	420	62	550	535	455
ALXL100:1	100	28	106.6	254	M16			300	195	258	254	Φ18			Φ800	445	62	605	595	525

Configuration Table

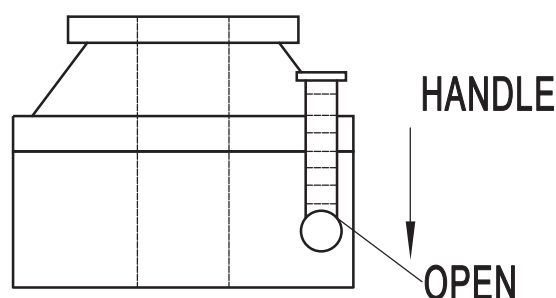
Model	ALXL	d	b	D3/D4	JorI	D1/D2	ForG	H	K	weight(kg)
DA45\SR45 DA52\SR52	26:1	Φ22	6	Φ50	4-Φ7	Φ50	4-M6	99	Φ140	4.0
DA63\SR63 DA75\SR75	26:1	Φ22	6	Φ70	4-Φ9	Φ70	4-M8	99	Φ180	4.0
DA83\SR83 DA92\SR92	38:1	Φ26	8	Φ70	4-Φ9	Φ70	4-M8	117	Φ200	5.5
DA105\SR105 DA125\SR125	38:1	Φ38	10	Φ102	4-Φ12	Φ102	4-M10	117	Φ200	5.5
DA140\SR140 DA160\SR160	54:1	Φ38	10	Φ125	4-Φ14	Φ125	4-M12	118	Φ280	9.0
DA190\DA210	54:1	Φ48	14	Φ140	4-Φ18	Φ140	4-M16	118	Φ280	9.0
SR190\SR210	80:1	Φ48	14	Φ140	4-Φ18	Φ140	4-M16	148	Φ400	31.0
DA240\DA270	80:1	Φ60	18	Φ165	4-Φ22	Φ165	4-M20	148	Φ400	31.0
SR240\SR270 DA300	78:1	Φ60	18	Φ165	4-Φ22	Φ165	4-M20	150	Φ500	44.0
SR300\DA350	78:1	Φ80	22	Φ165	4-Φ22	Φ165	4-M20	150	Φ500	44.0
DA350\SR350 DA400	98:1	Φ80	22	Φ165	4-Φ22	Φ165	4-M20	195	Φ800	135.0
SR400	100:1	Φ100	28	Φ254	8-Φ18	Φ254	8-M16	195	Φ800	190.0

Manual Instruction

- The bottom surface of the handwheel is connected with the valve, the support surface is connected with the pneumatic, the valve shaft passes through the inner hole of the worm wheel, the square on the top of the shaft is connected with the square hole of the pneumatic.
- Working Process: When under the pneumatic control, the pneumatic drives the valve shaft and the worm wheel. When under the manual control, the worm engages with the worm wheel to drive the valve shaft, pneumatic piston with the move.
- When turn the handle and close the worm, there will be gear mismatch phenomenon, the handwheel needs to be turned more. Tighten the limit rubber nut after the gears are matched.
- When the handle on “close” position, handwheel operating allowed, pneumatic operating forbidden. Turning the handle to the “open” position, worm wheel and worm apart, pneumatic operation allowed. (Show as Page1.)
- When the handle on “open” position, pneumatic operating allowed, handwheel operating forbidden. When turning to handwheel operating, drive the anchor screw out, the handle turns to the “close” position, handwheel should be turned to assure the joggle of between worm wheel and worm. (Show as Page 2.)
- Pneumatic operating and handwheel operating can not be carried out at the same time.



Page 1

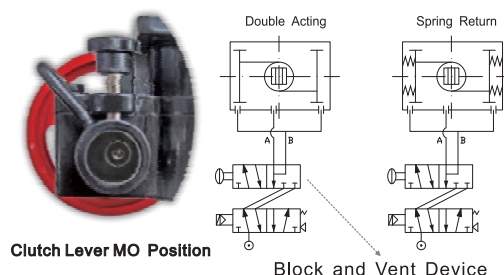


Page 2

Manual Operation and Pneumatic Operation

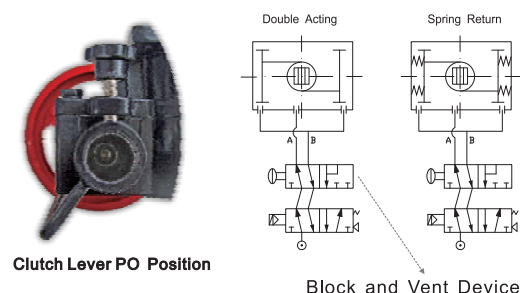
Manual Operation (MO)

When the handle is locked in the (MO) position, the system can be operated by rotating the handwheel. When the system is operated manually, the air pressure inside of pneumatic actuator should be totally exhausted. In this operation, the "Block and Vent Device" will contribute more. Please check the information below for more details.



Pneumatic Operation (PO)

When the handle is locked in the (PO) position, the system can be operated automatically.

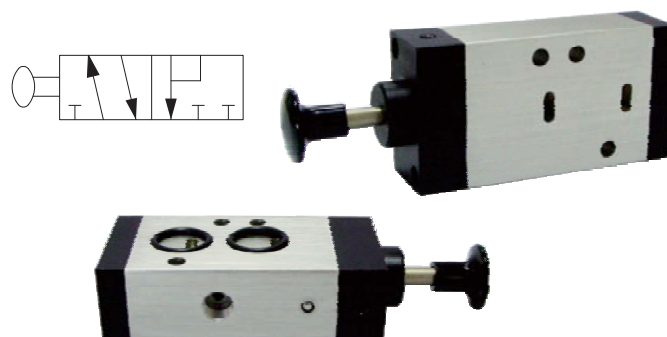
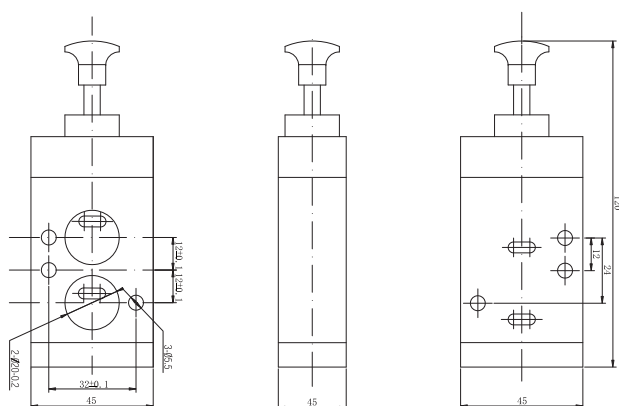


ABV001 Block and Vent Device

Main Features

When the pneumatic actuator needs to be isolated from the air control system of the plant, typically in the application of the valve + declutch manual override + actuator, the valve needs to be manual operated by the declutch, the "Block and Vent" will contribute more in the operation. This device provides a local means of blocking the air supply from both solenoid valve and actuator, and at the same time venting all compressed air from both chambers of the actuator. This device is available for both double acting and spring return actuator.

Dimensions



Technical Data

Item of Spool Valve	ABV001	Most Important Hint
Materials in contact with fluid	Aluminum, Brass, Buna NBR	<p>In the "A" position (the knob close to the body), actuator two ports are opened to solenoid valve for normal control.</p> <p>In the "M" position (the knob far from the body), actuator two ports are opened to vent port and the supply air from solenoid valve is blocked off.</p>
Coating	Anodized coated	
Seal	Buna N	
Function	5/2	
Vent Port	1/8" or 1/4" BSPP	
Assembly and Connection	24×32 Namur	
Working Medium	less than 40 μm filtered and dried air	
Maximum Orifice of Flux	Ø5.6mm (24mm ²)	
CV	1.4	
Working Temperature	-20°C ~ 80°C	
Working Pressure	0 ~ 8 bar	