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DECLUTCHABLE GEAR OPERATOR

SERIES DGO

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USAGE

- The DGO gear operator is designed for use on butterfly valves, ball valves, and plug valves that utilize high pressure pneumatic actuators for operation.
- The DGO is a de-clutchable operator for manually overriding the actuator.

FEATURES

- Small in volume, light weight, reasonable design and novel pattern.
- There are a range of sizes so the output torque matches the size of the pneumatic actuator and valve.
- There are two keyways 90° apart in the inner hole of the worm gear to allow for easy orientation of the valve.
- The gear operator is filled with special lubricant before leaving the factory. It is sealed after assembly providing dustproof and waterproof function and has a protection grade of IP65.

ASSEMBLY

The bottom of the gear operator should be connected with the valve and the bracket surface connected with the actuator. The valve stem coupling passes through the inner hole of the worm gear and the square end of the stem, which matches the square hole of the actuator.

OPERATION

AUTOMATIC OPERATION: During normal operation, the actuator drives the valve open and closed with the worm shaft rotating with the valve. In manual operation, the worm shaft engages the worm gear allowing for the valve and actuator to be rotated by the handwheel.

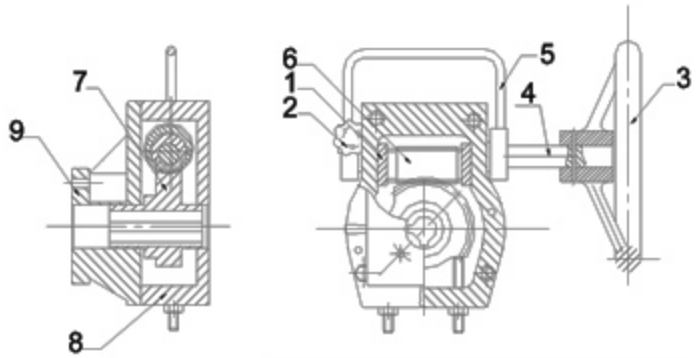
MANUAL OPERATION: For manual operation of the valve, there must be no air pressure present in the valve actuator. First, loosen the handle retaining bolt (black knob), then raise the clutch handle so that the handle is in the highest position. This engages the worm rear. The valve may now be operated using the handwheel.
After manual operation, place the gear operator back into its normal state by loosening the retaining bolt and lowering the clutch handle and then retighten the retaining bolt.

NOTE: Air pressure must be released from the actuator in order to use the manual override.

TECHNICAL DATA

Model	Gear Ratio	Input Torque NM	Output Torque NM	Handwheel Dia	Weight kg
DGO-10	26:1	60	550	Φ200	
DGO-20	38:1	75	620	Φ200	13
		90	700		
DGO-30	54:1	100	1000	Φ300	17
		120	1200		
DGO-40	80:1	110	1600	Φ400	22
		140	2000		
DGO-50	78:1			Φ600	
DGO-60	98:1			Φ800	
DGO-70	100:1			Φ800	
DGO-80	118:1			Φ1000	

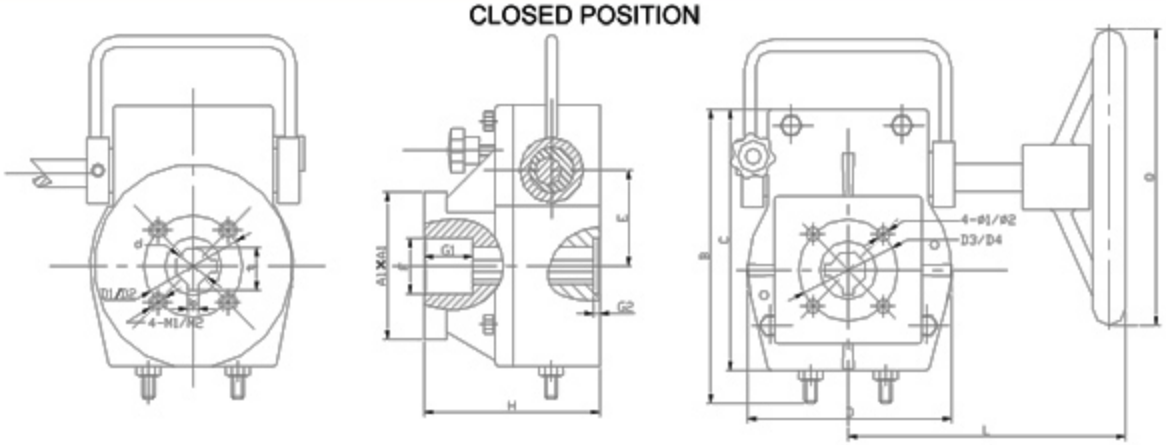
MAIN PARTS LISTING



No.	Description	Qty	Material
1	Off-Center Sleeve Sub Assembly	1	
2	Positioning Pin Sub Assembly	1	
3	Hand Wheel	1	HT200 GB9439-88
4	Worm Shaft	1	45 GB699-88
5	Handle	1	
6	Worm	1	45 GB699-88
7	Worm Gear	1	QT500-7 GB1348-88
8	Body	1	HT200 GB9439-88
9	Bracket Cap	1	HT200 GB9439-88

DIMENSIONS

CLOSED POSITION



Model	d	b	t	D1	4-M1	D2	4-M2	AxA1	D3	4-ϕ1	D4	4-ϕ2	H	Q	L	B	C	D	E	F	G1	G2
DGO-10	22	6	25.4	70	4-M8			70x70	70		70		99	ϕ200	160	162	142	109	50.5	36	26	2
DGO-20	26	8	29.3	70	4-M8	102	4-M10	100X100	70	4-ϕ9	102	4-ϕ12	117	ϕ200	195	198	178	143	65	40	34	4
	38	10	41.3					110X100												60		4
DGO-30	38	10	41.3	125	4-M12	140	4-M16	130X130	125	4-ϕ14	140	4-ϕ18	118	ϕ300	205	235	215	183	85	70	30	4
	48	14	51.8																	70		4
DGO-40	48	14	51.8	140	4-M16	165	4-M20	156X156	140	4-ϕ18	165	4-ϕ22	148	ϕ400	245	320	298	250	124	85	46	2
	60	18	64.4																			2
DGO-50	60	18	64.4	165	4-M20	165	4-M20	223X223	165	4-ϕ22			150	ϕ600	360	360	340	285	142	110	44	1.5
	80	18	84.4																			1
DGO-60	80	18	84.4	165	4-M20			230X230	165	4-ϕ22			195	ϕ800	550	550	530	450	229	110	40	3
DGO-70	100	20	105.3	254	8-M16			300X300	254				195	ϕ800	605	605	585	520	258	140	42	3
DGO-80	120	32	129	356	8-M30			ϕ445	356				250	ϕ1000	900	900	870	800	391	200	61	4