

HIGH PRESSURE BALL VALVES

Ball Valve Actuator

Pneumatic Operation



Description

The HYDAC dependable rack and pinion pneumatic actuators are compact and efficient components with a trouble-free, high-cycle service life.

The double piston design allows significantly reduced cylinder diameter and overall size as compared to single piston design.

Each piston has a gear rack that applies an equal force at two points directly across the diameter of a common pinion gear.

This feature, combined with the patented suspension system, creates a symmetrically balanced, center-mount actuator with a short, powerful stroke, rapid response, and fully concentric operating loads for optimum life expectancy and performance in control valve applications.

Features

- Reliable rack and pinion design
- High output torque and compactness
- Integrated air manifold and internal porting
- A solenoid valve can be mounted directly onto actuator body thus external piping is simplified
- Double-acting and single-acting (spring return) models are available
- Self-lubricating bands reduce friction and smooth piston travel, and increase efficiency
- Limit switch available

Ordering

Pneumatic Actuators (double acting) & Mounting Kits

Valve Size	Actuator Model Code	Actuator Part Number	Mounting Kit Part Number
KHB-06 (1/4")	FDA-25	2700205	2201839
KHB-10 (3/8")	FDA-25	2700205	2201839
KHB-16 (1/2")	FDA-25	2700205	2061509
KHB-20 (3/4")	FDA-25	2700205	2061510
KHB-25 (1")	FDA-100	2700206	2061511
KHM-32 (1 1/4")	FDA-100	2700206	2061512
KHM-40 (1 1/2")	FDA-350	2700207	2061513
KHM-50 (2")	FDA-350	2700207	2061513

Optional Accessories (model code / part number)

Limit Switch Box (2 SPDT switches)		
ACTUATOR LIMIT SWITCH		02700282
Limit Switch Mounting Kit (for FDA-25 thru FDA-350)		
ACTUATOR LIMIT SWITCH MTG KIT		02700284
Solenoid Control Valve** (120 VAC)	3-Way (for FSA)	02082888
	4-Way (for FDA)	02082890
Solenoid Control Valve** (24 VDC)	3-Way (for FSA)	02082887
	4-Way (for FDA)	02082889

Model Code

KHB-25SAE-1114 - A 5 1 A A

Ball Valve

Available for both KHB & KHM Series
(See pages A1-4 thru A1-18 for details on ball valve model codes)

Note: OMIT the Handle code rather than entering the code for no handle.

Actuator Type

A = Pneumatic - single (FSA) or double acting (FDA)

Size*

- 2 = 25 (recommended for valves KHB-06... - KHB-20)
- 3 = 40
- 4 = 65
- 5 = 100 (recommended for valves KHB-25... & KHM-32)
- 6 = 200
- 7 = 350 (recommended for valves KHM-40... & KHM-50)

Operation

- 1 = All Double acting (air to A to open, air to B to close)
 - 2 = #2 Spring Set (balances with 40 psi)
 - 3 = #3 Spring Set (balances with 60 psi)
 - 4 = #4 Spring Set (balances with 80 psi)
 - 5 = #5 Spring Set (balances with 100 psi)
 - 6 = #6 Spring Set (balances with 120 psi)
- Single acting, spring return (air to A to open, spring to close)

Limit Switches

- A = none
- B = Standard Limit Switch Module (2 SPDT)

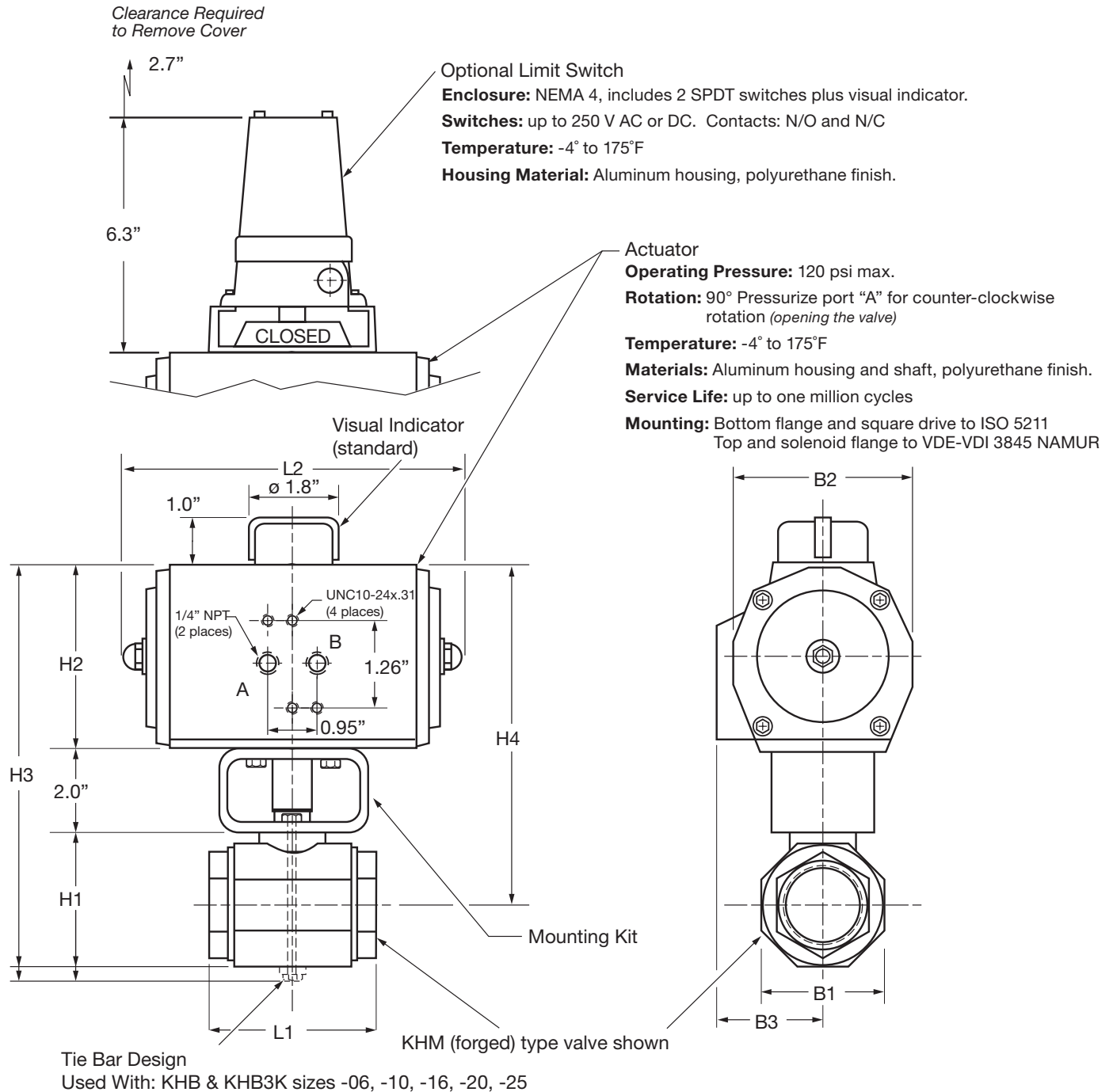
Additional Options

- A = none
- B = Control Valve: 120V AC
- C = Control Valve: 24V DC

*Recommendations for actuator size are based on a typical application: Double acting actuator, 3000 psi max. pressure, mineral based hydraulic fluid, 80-100 psi shop air, and a moderate duty cycle. Applications with Spring Return actuators, higher system pressures, low lubricity fluids, or infrequent cycling (< once/hr.) may require a larger size actuator. Please consult HYDAC Engineering Department for assistance sizing actuators for these applications.

**See pages A3-10 to A3-11 for information on Solenoid Valves.

Dimensions



Ball Valve / Actuator Size	H1	H2	H3	H4	L1	L2	B1	B2	B3	Operating Time (sec)	Air Cons. (in3/1atm)	Weight
KHB-06 / EDA-12	2.2	2.4	6.6	5.3	2.8	4.1	1.0	2.4	1.9	0.4	4	3.5
KHB-10 / EDA-12	2.2	2.4	6.6	5.3	2.9	4.1	1.3	2.4	1.9	0.4	4	4
KHB-16 / EDA-25	2.5	3.2	7.7	6.2	3.3	6.3	1.5	2.9	1.8	0.5	7	6.5
KHB-20 / EDA-25	3.2	3.2	8.4	6.5	3.8	6.3	1.9	2.9	1.8	0.5	7	8
KHB-25 / EDA-100	3.5	4.7	10.2	8.1	4.5	8.7	2.3	4.3	2.5	1.2	30	14
KHM-32 / EDA-100	3.4	4.7	10.1	8.6	4.4	8.7	3.0	4.3	2.5	1.2	30	16
KHM-40 / EDA-350	3.8	7.1	12.9	11.2	5.2	12.0	3.4	6.8	3.7	3.6	120	37
KHM-50 / EDA-350	4.5	7.1	13.6	11.5	5.6	12.0	4.2	6.8	3.7	3.6	120	42

Notes:

1. Dimensions are in inches and lbs.

2. Dimensions are for general information only, all critical dimensions should be verified by requesting a certified print.