

# Noah

NA Series

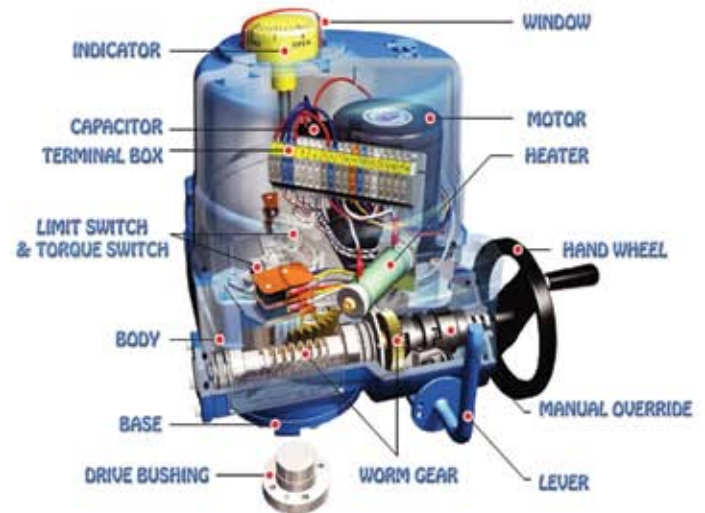


Quarter Turn Electric Actuators



Noah NA Series of Electric Actuators are particularly suited for quarter turn applications in piping, ducting and in various plants such as water treatment, pulp, paper, ship building and air conditioning combined with ball, butterfly, plug valves and dampers.

Its compact and simple design will ensure reliability and quality for customers even in hazardous locations. Noah NA Series of Electric Actuators give the best automation solutions to you with its various models (60Nm ~ 2,500Nm) and options.



#### ■ SEALING

Standard enclosure with o-ring sealing is watertight to IECIP67, NEMA4 and 6. The actuator is available with optional explosion proof enclosure.

#### ■ WIRING

Electric wiring of control circuit is standardized for single and three phase power supply in a single module. Multiple terminal contacts sufficiently cover additional requirements such as auxiliary contactors for DCS, interlocking and other options.

#### ■ COMPONENT ARRANGEMENT

Mechanical and electrical module can be separated easily to improve assembling, maintenance and alteration of electrical requirements. Actuator has enough internal space for optional accessories.

#### ■ HANDWHEEL

Size of handwheel is designed for safe and efficient emergency manual operation.

#### ■ MANUAL OVERRIDE

When operated the manual override lever engages the handwheel. Manual override is automatically disengaged when motor power is applied.

#### ■ ADAPTION

Base mounting is standard to ISO 5211.

Drive bush is removable for machining to valve stem requirement. The actuator position on the valve can be selected for 4 positions by means of 4 bolt holes in the drive bush.

#### ■ HEATER

A space heater inside the actuator prevents condensation due to temperature and weather changes. Standard 200W heater keeps all electrical components in the actuator clean and dry.

#### ■ LIMIT SWITCHES

The limit switch is activated by means of a simple and yet reliable cam mechanism mounted and driven by the center column. The valve position can be accurately and easily set with a simple adjustable switch mechanism. The set position is permanent and is not affected by over-travel resulting from manual operation.

#### ■ TORQUE SWITCHES

Cam activated torque switches are easily adjustable to provide over-load protection.

#### ■ SELF-LOCKING

Rolled steel wormgear on aluminium bronze wormwheel self-locks to prevent valve back drive on control signal or power failure and transfers high torque with high efficiency at low sound levels.

# QUARTER TURN ELECTRIC ACTUATORS

## Performance

TYPE	Max. Output Torque	Operating Time 60/50Hz	Max Stem Dia	Motor Class F	Rated Current (mA)				Number of Hand Wheel Turns	Weight (kg f)
	Kg/m				90 Deg.	mm	W	1 Phase		
		110V	240V	380V				440V		
NA06	6	14/17	22	15	750	450	130	125	8.5	11
NA09	9	14/17	22	25	1200	580	170	160	8.5	11
NA15	15	17/20	22	40	1600	950	300	300	10	12
NA19	19	17/20	22	40	1600	950	300	300	10	13
NA28	28	20/24	32	40	1800	950	330	340	12.5	17
NA38	38	20/24	32	60	2300	1300	360	340	12.5	18
NA50	50	20/24	32	90	3900	1500	560	570	12.5	19
NA60	60	24/29	42	90	3900	1500	560	570	14.5	22
NA80	80	24/29	42	180	4700	2150	840	780	14.5	23
NA100	100	24/29	42	180	4700	2150	840	780	14.5	25
NA150	150	72/87	75	90	3900	1500	560	570	43.5	68
NA200	200	72/87	75	180	4700	2150	840	780	43.5	70
NA250	250	72/87	75	180	4700	2150	840	780	43.5	70

## Standard Specification

Enclosure	Watertight Ingress Protection 67 Nema 4 and 6
Ambient Temperature	-20°C to + 70°C, 150°C/1hr
Power Supply (60/50 Hz)	110/240 VAC, 1Phase, 380/440 VAC, 3Phase, 24VDC (upto NA19 only)
Control Power	110/240 VAC, 1Phase, 60/50Hz, 24VDC
Torque Switches	2 Open/Close (Except NA 06, NA 09)
Limit Switches	2 Open/Close, 250 VAC 16A Rating
Stall Protection	Built-in Thermal Protection (Open 150°C±5°C/Close 97°C±15°C)
Travel Angle	90°±5°
Indicator	Continuous Position Indicator
Manual Override	Hand/Auto Declutching Mechanism
Self Locking	Provided by means of Worm Gearing
Conduit Entries	External Adjustable Screws
Space Heater	20W (110/240 VAC, 24 VDC)
Conduit Entries	Two PF 3/4" (NPT 3/4")
Lubrication	Grease Moly (EP Type)
Materials	Steel, Aluminium Alloy, Al Bronze
Surface Treatment	Anodizing
External Coating	Dry Powder, Epoxy - Polyester, Polyester (TGIC-Free)

# OPTIONS



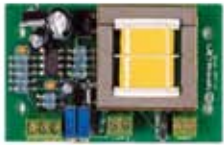
## ■ ALS (Auxiliary Limit Switches)

Providing a dry contact signal to verify valve's positions and interface with customer's controls.



## ■ ATS (Auxiliary Torque Switches)

Providing a dry contact signal to send to customer's panel to indicate over-torque.



## ■ CPT (Current Position Transmitter)

Combined with a PIU to transfer an output signal (DC : 4~20mA) from PIU's resistance value  
power : AC 110/240V±10% 50/60Hz DC24V  
output signal : DC 4~20mA



## ■ PCU (Proportional Control Unit)

Combined with PIU to control the valve's position proportionally by an input signal and provide an output signal in relation to valves position.

- Input signal : DC 4~20mA/DC 2~10V/DC 1~5V
- Output signal : DC 4~20mA
- Power : AC 110/240V±10% 50/60Hz DC24V
- Size : 120mm×135mm
- Operating temperature : -10°C~55°C
- Resolution : Min. 1/500
- Operating Humidity :  
90% RH Max.(Non condensing)



## ■ LCU (Local Control Unit)

A small unit that is mounted to the actuator to operate the valve's position locally, complete with Local/Remote switch and Open/Stop/Close switches



## ■ PIU (Position Indication Unit)

Providing resistance value (0~1KΩ) according to valve's position.



## ■ IMS (Integral Motor Starter)

Integrated reversing contactors and control transformer provides various control voltages to the actuator from the main power (380VAC/440VAC).