

Direct Coupled Damper Actuators—Non-Spring Return

N20 Series: MN6120; MN7220

Non-Spring Return Direct Coupled Actuator, 175 lb-in



The MN7220 is a 175 lb-in (20Nm), non-spring return, direct-coupled, low voltage actuator that accepts adjustable modulating (0/2-10 Vdc) control for: air dampers, air handling units, ventilation flaps, louvers, and ball valves.

- Control for air damper applications with up to 50 sq ft assuming 3.5 in-b per sq ft of damper area, velocity independent
- Patented self-centering shaft adapter
- Access cover to facilitate connectivity
- Declutch for manual adjustment
- Mechanical end limits
- Field-installable auxiliary switches
- Rotation direction selectable by switch
- Mountable in any orientation (no IP54 if upside down)
- Mechanical position indicator
- CE approved. UL approved

Actuator Type: Damper; Valve
Rotational Stroke: 95 ±3 degrees
Fail Safe Mode: Non-Spring Return
Torque Rating: 175 lb-in. (20 Nm)
Dimensions, Approximate: 8.78 in high x 3.62 in wide x 3.15 in deep (223 mm high x 92 mm wide x 80 mm deep)
External Auxiliary Switches Available: Yes, SW2-US
Electrical Connections: Enclosed screw terminal strip (22 to 14 AWG)
Environmental Rating: NEMA2; IP54
Frequency: 50 Hz; 60 Hz
Manual operation: Declutch mechanism
Mounting: Direct Coupled
Maximum Noise Rating, Driving (dBA @ 1m): 40
Rotation to Open: By switch
Rotational Stroke Adjustment: Dual Integral Adj. Stops (3 degree increments)

Compatible Damper Shafts: 3/8 to 1.06 in. round or 3/8 to 11/16 in. square (10 to 27 mm round or 10 to 18 mm square)
Shaft Adapter Type: Self-centering clamping
Supply Voltage: 24 Vac ±15%
Materials: Plenum rated plastic housing
Operating Humidity Range (% RH): 5 to 95% RH, non-condensing
Ambient Temperature Range: -5 F to +140 F (-20 C to +60 C)
Storage Temperature Range: -40 F to +175 F (-40 C to +80 C)
Weight: 3.2 lb (1.45 kg)
Includes: Mounting bracket, self-centering shaft adapter
Comments: Integral 1/2 in. NPSM conduit connection
Approvals
CE: 89/336/ECC, 73/23/EEC
C-Tick: N314
Underwriters Laboratories, Inc: UL873, Plenum Rated
Canadian Underwriters Laboratories, Inc: cUL C22.2 No. 24-93

	Product Number	Control Signal	Feedback	Timing (seconds) Nominal Driving @ 60 Hz	Switch Ratings	Power Consumption, Driving	Input Impedance	Number of Internal Auxiliary Switch
*	MN6120A1002	On/Off; SPDT; Floating	—	95 sec	—	6 VA, 6 W	—	0
*	MN6120A1200	On/Off; SPDT; Floating	—	95 sec	250 Vac, 5 A res (3 A ind)	6 VA, 6 W	—	2
*	MN7220A2007	(0)2-10 Vdc (4-20 mA w/500 ohm resistor)	—	95 sec	—	6 VA, 6 W	100K ohm (voltage), 500 ohm (current)	0
*	MN7220A2205	(0)2-10 Vdc (4-20 mA w/500 ohm resistor)	(0)2-10 Vdc (max. output: ±1.0 mA)	95 sec	250 Vac, 5 A res (3 A ind)	6 VA, 6 W	100K ohm (voltage), 500 ohm (current)	2

* TRADELINE models • SUPER TRADELINE models