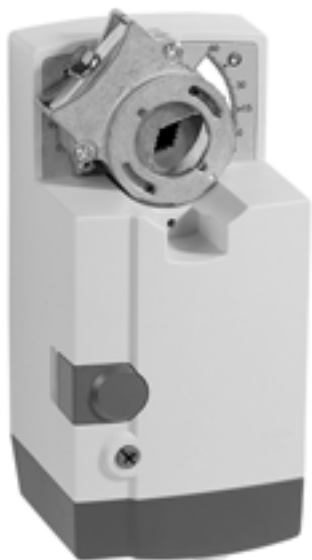


# Direct Coupled Damper Actuators—Non-Spring Return

## 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								