

# Direct Coupled Damper Actuators—Non-Spring Return

## N10 Series: MN6110; MN7510

### Non-Spring Return Direct Coupled Actuator, 88 lb-in



The MN7510 is a 88 lb-in (10Nm), non-spring return, direct-coupled, low voltage actuator that accepts adjustable modulating (0/2-10 Vdc) or on/off (SPDT) control for: air dampers, air handling units, ventilation flaps, louvers, and ball valves.

- Declutch for manual adjustment
- Adjustable mechanical end limits
- Removable access cover for direct wiring
- Mountable in any orientation
- Function selection switch for selecting modulating or floating/2-position control

**Actuator Type:** Damper; Valve

**Rotational Stroke:** 95 ±3 degrees

**Fail Safe Mode:** Non-Spring Return

**Torque Rating:** 88 lb-in. (10 Nm)

**Dimensions, Approximate:** 5.23 in high x 2.60 in wide x 2.44 in deep (134 mm high x 66 mm wide x 62 mm deep.)

**External Auxiliary Switches Available:** No

**Electrical Connections:** Enclosed screw terminal strip (22 to 14 AWG)

**Environmental Rating:** NEMA2

**Ingress Protection Rating:** IP54

**Frequency:** 50 Hz; 60 Hz

**Manual operation:** Declutch mechanism

**Mounting:** Direct Coupled

**Maximum Noise Rating, Driving (dBA @ 1m):** 35

**Rotation to Open:** By switch

**Rotational Stroke Adjustment:** Dual Integral Adj. Stops (3 degree increments)

**Compatible Damper Shafts:** 1/4 to 1/2 in. square or 3/8 to 5/8 in. round (6 to 13 mm square or 8 to 16 mm round)

**Shaft Adapter Type:** U-bolt clamp

**Supply Voltage:** 24 Vac +20%, -15%, 24 Vdc

**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:** -22 F to +176 F (-30 C to +80 C)

**Weight:** 1.5 lb (0.68 kg)

**Includes:** Mounting bracket, screws, shaft adapter, water-tight strain-relief cable fittings

**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 | Number of Internal Auxiliary Switch |
|---|----------------|------------------------------------------------------------------|------------------------------------|------------------------------------------|---------------------------|----------------------------|-------------------------------------|
| * | MN6110A1003/U  | On/Off; SPDT; Floating                                           | —                                  | 95 sec                                   | —                         | 5 VA                       | 0                                   |
| * | MN6110A1201/U  | On/Off; SPDT; Floating                                           | —                                  | 95 sec                                   | 30 Vdc max., 3 A Class II | 5 VA                       | 2                                   |
| * | MN7510A2001/U  | (0)2-10 Vdc (4-20 mA w/500 ohm resistor); On/Off; SPDT; Floating | (0)2-10 Vdc (max. output: ±1.0 mA) | 95 sec                                   | —                         | 5 VA                       | 0                                   |
| * | MN7510A2209/U  | (0)2-10 Vdc (4-20 mA w/500 ohm resistor); On/Off; SPDT; Floating | (0)2-10 Vdc (max. output: ±1.0 mA) | 95 sec                                   | 30 Vdc max., 3 A Class II | 5 VA                       | 2                                   |

\* TRADELINE models • SUPER TRADELINE models