

Direct Coupled Damper Actuators—Non-Spring Return

N20 Series: MN6120; MN7220

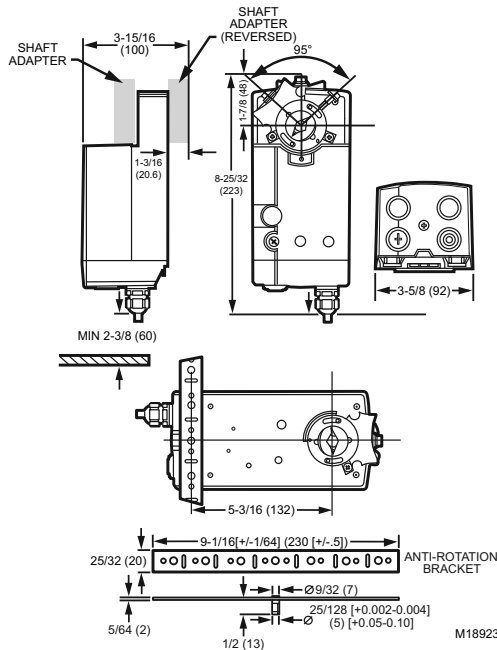
Non-Spring Return Direct Coupled Actuator, 175 lb-in



These direct-coupled damper actuators provide adjustable modulating control for: air dampers, VAV units, air handling units, ventilation flaps, louvers, and reliable control for air damper applications with up to 4.6 m²/50 sq ft (seal-less dampers; air friction-dependent).

- Control for air damper applications with up to 50 sq ft assuming 3.5 in-lb 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.

Dimensions in inches (millimeters)



Actuator Type: Damper; Valve

Rotational Stroke: 95 ±3 degrees

Fail Safe Mode: Non-Spring Return

Torque: 175 lb-in. (20 Nm)

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 round or 3/8 to 11/16 square (10 to 27 round or 10 to 18 square)

Shaft Adapter Type: Self-centering clamping

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)

Approvals:

CE: 89/336/ECC, 73/23/EEC

C-Tick: N314

Underwriters Laboratories Inc. UL873, Plenum Rated

Underwriters' Laboratories of Canada: cUL C22.2 No. 24-93

Includes: Mounting bracket, self-centering shaft adapter

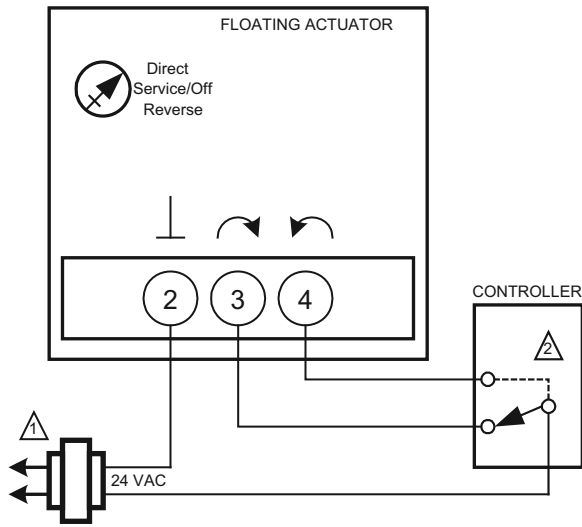
Comments: Integral 1/2 in. NPSM conduit connection.

Product Number	Control Signal	Feedback	Timing (seconds)	Power Consumption	Supply Voltage	Input Impedance	Number of Internal Auxiliary Switch	Switch Ratings	Maximum Stall Torque	
			Nominal Driving @ 60 Hz	Driving					(lb-in.)	(Nm)
* MN6120A1002	Floating; Two position	—	95 sec	6 VA, 6 W	24 Vac ±15%	—	0	—	221 lb-in.	25 Nm
* MN6120A1200	Floating; Two position	—	95 sec	6 VA, 6 W	24 Vac ±15%	—	2	250 Vac, 5 A res (3 A ind)	221 lb-in.	25 Nm
* MN7220A2007	(0)2-10 Vdc (4-20 mA w/500 ohm resistor)	(0)2-10 Vdc (max. output: ±1.0 mA)	95 sec	6 VA, 6 W	24 Vac ±20%	100K ohm (voltage), 500 ohm (current)	0	—	257 lb-in.	29 Nm
* MN7220A2205	(0)2-10 Vdc (4-20 mA w/500 ohm resistor)	(0)2-10 Vdc (max. output: ±1.0 mA)	95 sec	6 VA, 6 W	24 Vac ±20%	100K ohm (voltage), 500 ohm (current)	2	250 Vac, 5 A res (3 A ind)	257 lb-in.	29 Nm

* TRADELINE models • SUPER TRADELINE models

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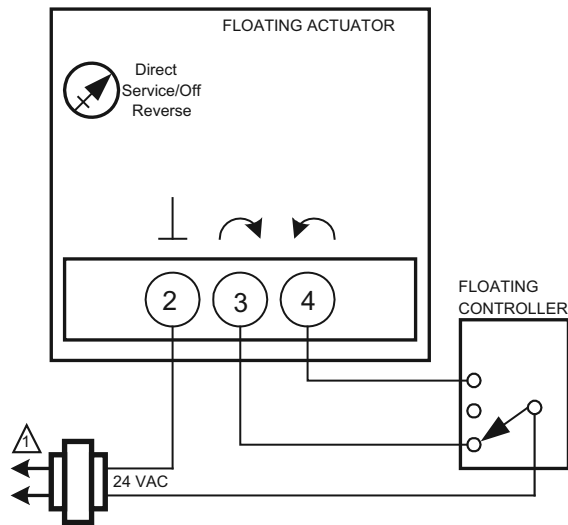
Used for On/Off Control



- ⚠ POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- ⚠ CONNECTION REQUIRED FOR SPST CONTROL.

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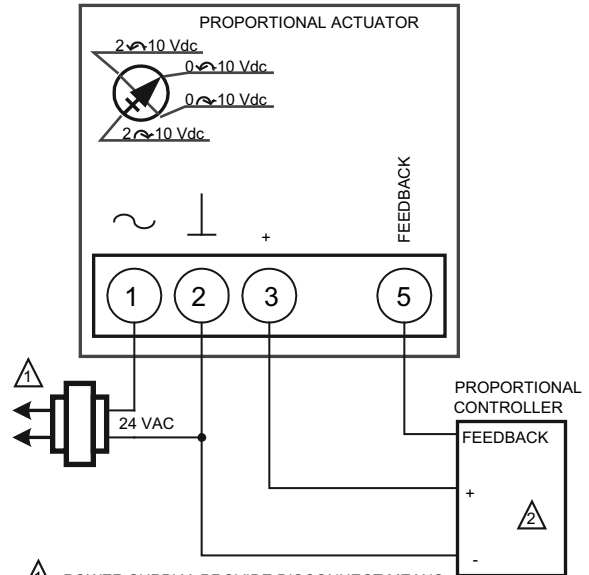
Wiring for Floating Control



- ⚠ POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

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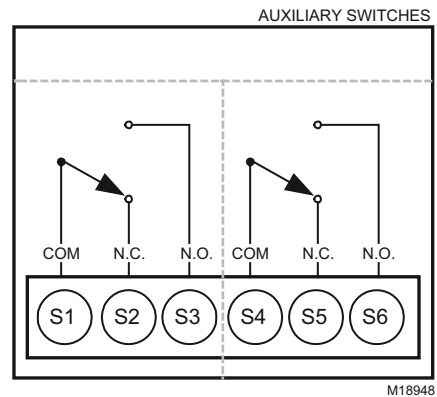
Wiring for Modulating Control



- ⚠ POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- ⚠ 0(2)-10 VDC OF 0(4)-20 mA CONTROL SIGNAL ACCEPTABLE. SET CONTROL SIGNAL DIP SWITCH TO "OFF" FOR VOLTAGE. SET TO "ON" FOR CURRENT.

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Wiring for Auxiliary Switches



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