

ACTUATORS & DAMPERS

DIRECT COUPLED ACTUATORS NON-SPRING RETURN

MN SERIES

DESCRIPTION

The **Honeywell MN Series actuators** are non-spring return direct coupled actuators from Honeywell. They are designed and tested to provide reliable non-spring return control for dampers and valves that require up to 300 in-lb (34 Nm) of torque. The **MN Series** is powered by 24 VAC/VDC and has an excellent feature set that combines flexibility and simplicity.

FEATURES

- **Adjustable mechanical range stops**
- **Auto adapt on modulating models**
- **Internal or field-installable auxiliary switches**
- **Signal mode switch**
- **Adjustable zero and span**
- **Mechanical override deutch**
- **Detachable wiring cover**
- **Consistent wiring**



MN6105A1011, 44 in-lb
MN7510A2209, 88 in-lb



MN6120A1002, 175 in-lb
MN7234A2008, 300 in-lb



COMMON SPECIFICATIONS

Supply Voltage	21-27 VAC 50/60 Hz, 24 VDC (except MN6120, MN6134)	Noise	
Motor	Brushless DC; Synchronous with magnetic clutch (floating 175, 300 in-lb)	44, 88 in-lb	<35 dB @ 3' (1m)
Wiring Action	Enclosed terminals Switching selectable direct/reverse acting	175, 300 in-lb	<40 dB @ 3' (1m)
Rotation	95° ± 3°	Resolution	400 steps
Drive Time	95 seconds	Life Expectancy	60,000 cycles, 1 million repositions
Manual Override	Disengage button	Operating Temperature	-5° to 140°F (-20° to 60°C)
		Operating Humidity	5 to 95% RH
		Approvals	UL File #E4996, CE, C-tick, plenum rated
		Warranty	5 years

INDIVIDUAL SPECIFICATIONS

Model	Torque	Supply VA	Control Signal	Input Impedance	Feedback	Auxiliary Switch
MN6105A1011	44 in-lb (5 Nm)	5.0 VA	Two-position, floating		None	SW2 add-on
MN6105A1201	44 in-lb (5 Nm)	5.0 VA	Two-position, floating		None	Internal, dual SPDT, class II only
MN7505A2001	44 in-lb (5 Nm)	5.0 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	0/2-10 VDC	SW2 add-on
MN7505A2209	44 in-lb (5 Nm)	5.0 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	0/2-10 VDC	Internal, dual SPDT, class II only
MN6110A1003	88 in-lb (10 Nm)	5.0 VA	Two-position, floating		None	SW2 add-on
MN6110A1201	88 in-lb (10 Nm)	5.0 VA	Two-position, floating		None	Internal, dual SPDT, class II only
MN7510A2001	88 in-lb (10 Nm)	5.0 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	0/2-10 VDC	SW2 add-on
MN7510A2209	88 in-lb (10 Nm)	5.0 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	0/2-10 VDC	Internal, dual SPDT, class II only
MN6120A1002	175 in-lb (20 Nm)	6.0 VA	Two-position, floating		None	SW2 add-on
MN6120A1200	175 in-lb (20 Nm)	6.0 VA	Two-position, floating		None	Internal, dual SPDT, class II only
MN7220A2007	175 in-lb (20 Nm)	6.0 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	0/2-10 VDC	SW2 add-on
MN7220A2205	175 in-lb (20 Nm)	6.0 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	0/2-10 VDC	Internal, dual SPDT, class II only
MN6134A1003	300 in-lb (34 Nm)	9.0 VA	Two-position, floating		None	SW2 add-on
MN7234A2008	300 in-lb (34 Nm)	8.0 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	0/2-10 VDC	SW2 add-on

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DIMENSIONS						
Model	Torque	Dimensions	Maximum Shaft Diameter	Minimum Shaft Length	Enclosure Rating	Weight
MNXX05	44 in-lb (5 Nm)	2.4"H x 2.6"W x 5.3"L (6.2 x 6.6 x 13.4 cm)	0.63" (1.6 cm)	1.62" (4.1 cm)	NEMA 2 (IP54)	1.0 lb (0.4 kg)
MNXX10	88 in-lb (10 Nm)	2.4"H x 2.6"W x 5.3"L (6.2 x 6.6 x 13.4 cm)	0.63" (1.6 cm)	1.62" (4.1 cm)	NEMA 2 (IP54)	1.0 lb (0.4 kg)
MNXX20	175 in-lb (20 Nm)	3.9"H x 3.6"W x 8.8"L (10.0 x 9.2 x 22.3 cm)	1.06 in (2.7 cm)	0.87" (2.2 cm)	NEMA 2 (IP54)	3.2 lb (1.45 kg)
MNXX34	300 in-lb (34 Nm)	3.9"H x 3.6"W x 8.8"L (10.0 x 9.2 x 22.3 cm)	1.06 in (2.7 cm)	0.87" (2.2 cm)	NEMA 2 (IP54)	3.2 lb (1.45 kg)

WIRING

MN61xx
Two-position Control

MN61xx, MN75xx
Floating Control

MN75xx/72xx
Proportional Control
0 or 2-10 VDC or 0 or 4-20 mA Signal*
(ZG-R01 500Ω resistor required for 4-20 mA signal)

SW2 Auxiliary Switch Kit
Switch ratings: Adjustable between 5 and 85 degrees, 24 VAC/VDC, 5A resistive, 3A inductive
Models with internal switches have same contact ratings

ORDERING INFORMATION

MODEL	DESCRIPTION
MN6105A1011	Non-spring return, 44 in-lb (5 Nm), two-position/tri-state control
MN6105A1201	Non-spring return, 44 in-lb (5 Nm), two-position/tri-state, aux switches
MN7505A2001	Non-spring return, 44 in-lb (5 Nm), proportional/two-pos/tri-state control
MN7505A2209	Non-spring return, 44 in-lb (5 Nm), proportional/two-pos/tri-state, aux sw.
MN6110A1003	Non-spring return, 88 in-lb (10 Nm), two-position and tri-state control
MN6110A1201	Non-spring return, 88 in-lb (10 Nm), two-position/tri-state, aux switches
MN7510A2001	Non-spring return, 88 in-lb (10 Nm), proportional/two-pos/tri-state control
MN7510A2209	Non-spring return, 88 in-lb (10 Nm), proportional/two-pos/tri-state control, aux sw.
MN6120A1002	Non-spring return, 175 in-lb (20 Nm), two-position and tri-state control
MN6120A1200	Non-spring return, 175 in-lb (20 Nm), two-position/tri-state control, aux switches
MN7220A2007	Non-spring return, 175 in-lb (20 Nm), proportional
MN7220A2205	Non-spring return, 175 in-lb (20 Nm), proportional/aux sw.
MN6134A1003	Non-spring return, 300 in-lb (34 Nm), two-position and tri-state control
MN7234A2008	Non-spring return, 300 in-lb (34 Nm), proportional control

ACCESSORIES	
32004254-003	Replacement shaft coupler for KA-301, MNxx34
50001194-001	Universal surface mount bracket with crank arm and 1/2" shaft
SW2	2X/SPDT/AUX SWTCH/KA/KAS/1000-X
ZG-R01	500Ω, 1/2W, 1% resistor