

ACTUATORS & DAMPERS

DIRECT COUPLED ACTUATORS NON-SPRING RETURN

MF4, MS4 SERIES

DESCRIPTION

The **Schneider Electric MF4 and MS4 Series DuraDrive™ direct coupled, non-spring return actuators** are designed to accept tri-state or proportional control signals from a DDC system or a thermostat for HVAC damper applications. Typical applications include air handling unit dampers and inlet vanes, VAV boxes, and unitary equipment. The actuators range in torque from 35 to 300 in-lb (4 to 34 Nm).

FEATURES

- **Direct mount to round or square shaft**
- **Manual override on all models**
- **Compact, lightweight design**
- **Tri-state and proportional control models**

MF41-6343



MF4E-60830



MS41-6043



COMMON SPECIFICATIONS

Supply Voltage MS41-6340	21-28 VAC 50/60 Hz 120 VAC 50/60 Hz	Resolution	100 steps
Motor	Brushless DC	Life Expectancy	100,000 Full Strokes
Wiring MF4E	Screw terminals	Noise	<60dB @ 3' (1m)
All others	24" (0.6 m) pigtails, 18 AWG	Operating Temperature MF4E	-22° to 140°F (-30° to 60°C)
Action	Non-Spring Return	All others	-25° to 130°F (-32° to 55°C)
Rotation	90°	Operating Humidity	5 to 95% RH
Manual Override 35, 70 in-lb	Disengage button	Approvals	CE, C-tick (varies with model), UL File #E9429 (varies by model)
133, 300 in-lb	Crank	Warranty	5 years

INDIVIDUAL SPECIFICATIONS

Model	Torque	Supply VA	Control Signal	Input Impedance	Feedback	Auxiliary Switch	Drive Time
MF4E-60430-100	35 in-lb (4 Nm)	2.0 VA	Two-position, floating		None	None	90 seconds
MF41-6043	35 in-lb (4 Nm)	2.3 VA	Two-position, floating		None	None	90 seconds
MS41-6043	35 in-lb (4 Nm)	3.3 VA	Proportional 0-10 VDC	100 kΩ	0-10VDC	None	90 seconds
MF4E-60830-100	70 in-lb (8 Nm)	2.0 VA	Two-position, floating		None	None	90 seconds
MF41-6083	70 in-lb (8 Nm)	2.3 VA	Two-position, floating		None	None	125 seconds
MS41-6083	70 in-lb (8 Nm)	3.3 VA	Proportional 0-10 VDC	100 kΩ	0-10VDC	None	125 seconds
MF41-6153	133 in-lb (15 Nm)	3.0 VA	Two-position, floating		None	None	125 seconds
MS41-6153	133 in-lb (15 Nm)	5.0 VA	Proportional 0/2-10 VDC	100 kΩ	0-10VDC	None	125 seconds
MF41-6343	300 in-lb (34 Nm)	7.0 VA	Two-position, floating		None	None	145 seconds
MS41-6343	300 in-lb (34 Nm)	7.1 VA	Prop. 2-10 VDC, 4-20 mA	10 kΩ (2-10 VDC), 500Ω (4-20 mA)	None	None	145 seconds
MS41-6340	300 in-lb (34 Nm)	7.1 VA	Prop. 2-10 VDC, 4-20 mA	10 kΩ (2-10 VDC), 500Ω (4-20 mA)	None	None	145 seconds

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DIMENSIONS						
Model	Torque	Dimensions	Maximum Shaft Diameter	Minimum Shaft Length	Enclosure Rating	Weight
MF4E-xxxx	35 in.-lb (4 Nm)	2.6"H x 3.5"W x 5.8"L (6.9 x 8.9 x 14.8 cm)	0.5" (1.3 cm)	2.0" (5.1 cm)	NEMA 1 (IP30)	3.5 lb (1.6 kg)
Mx41-6043	35 in.-lb (4 Nm)	2.4"H x 2.7"W x 5.4"L (6.1 x 6.9 x 13.7 cm)	0.63" (1.58 cm)	2.0" (5.1 cm)	NEMA 2 (IP54)	1.0 lb (0.5 kg)
Mx41-6083	70 in.-lb (8 Nm)	2.4"H x 2.7"W x 5.4"L (6.1 x 6.9 x 13.7 cm)	0.63" (1.58 cm)	2.0" (5.1 cm)	NEMA 2 (IP54)	1.0 lb (0.5 kg)
Mx41-6153	133 in.-lb (15 Nm)	2.4"H x 3.25"W x 8.4"L (6.1 x 16.0 x 21.3 cm)	0.75" (1.9 cm)	2.8" (7.0 cm)	NEMA 1 (IP54)	2.2 lb (1.0 kg)
Mx41-6343	300 in.-lb (34 Nm)	4.0"H x 4.0"W x 10.8"L (10.2 x 10.2 x 27.5 cm)	1.0" (2.5 cm)	4.7" (11.9 cm)	NEMA 4 (IP56)	10.5 lb (4.8 kg)
MS41-6340	300 in.-lb (34 Nm)	4.0"H x 4.0"W x 10.8"L (10.2 x 10.2 x 27.5 cm)	1.0" (2.5 cm)	4.7" (11.9 cm)	NEMA 4 (IP56)	10.5 lb (4.8 kg)

WIRING

Floating Control

CW and CCW as looking at the top of the actuator.

0-10 VDC Control

DA/RA switchable

2-10 VDC Control

Select DA/RA by mounting (turn motor over)

4-20 mA Control

Select DA/RA by mounting (turn motor over)

ORDERING INFORMATION

MODEL	DESCRIPTION
MF4E-60430-100	Non-spring return 35 in.-lb (4 Nm), two-position, floating, terminals
MF41-6043	Non-spring return 35 in.-lb (4 Nm), tri-state control
MS41-6043	Non-spring return 35 in.-lb (4 Nm), proportional control
MF4E-60830-100	Non-spring return 70 in.-lb (8 Nm), tri-state control, terminals
MF41-6083	Non-spring return 70 in.-lb (8 Nm), tri-state control
MS41-6083	Non-spring return 70 in.-lb (8 Nm), proportional control
MF41-6153	Non-spring return 133 in.-lb (15 Nm), tri-state control
MS41-6153	Non-spring return 133 in.-lb (15 Nm), proportional control
MF41-6343	Non-spring return 300 in.-lb (34 Nm), tri-state control
MS41-6343	Non-spring return 300 in.-lb (34 Nm), proportional control
MS41-6340	Non-spring return 300 in.-lb (34 Nm), proportional control, 120 VAC

AM-756

ACCESSORIES

Metric to 1/2" NPT conduit adapter for damper actuators