



PNEUMATICS & FITTINGS

PNEUMATIC DAMPER ACTUATORS MK-3000, MK-7100 SERIES



DESCRIPTION

The **Schneider Electric MK-3000, MK-7100 Series** pneumatic actuators provide damper control for 3-8, 5-10, and 8-13 psig (21-55, 34-69, and 55-90 kPa) pressure ranges. The **MK-3000** has a 3.5" (8.9 cm) nominal stroke and is adjustable 2" to 4" (5.1 to 10.2 cm) for smaller applications such as zone dampers and VAV boxes. The **MK-7100** has a 4.5" (11.4 cm) nominal stroke and is adjustable 4" to 5" (10.2 to 12.7 cm) for larger applications such as air handler dampers.



MK-7100



MK-3101

SPECIFICATIONS

Connections	1/8" NPT
Diaphragm	Beaded, molded neoprene
Operating Temperature	-20° to 160°F (-29° to 71°C)
Maximum Pressure Rating	30 psig (207 kPa)
Dimensions	
MK-3000	12.0"H x 5.9"W x 5.5"L (30.5 x 14.9 x 14.0 cm)
MK-7100	17.6"H x 7.8"W x 7.6"L (44.8 x 19.7 x 19.4 cm)
Weight	
MK-3000	5.0 lb (2.2 Kg) to 5.5 lb (2.5 Kg)
MK-7100	15.0 lb (6.8 Kg) to 15.5 lb (7.1 Kg)
Mounting	Any position
Warranty	1 year

APPLICATION

NOMINAL CONTROL DAMPER AREA	PARALLEL BLADES ft ² (m ²)		OPPOSED BLADES ft ² (m ²)	
	Proportional	Two-position	Proportional	Two-position
Actuator Model				
MK-3101, MK-3111, MK-3121	11.6 (1.07)	34.8 (3.23)	15 (1.39)	45 (4.18)
MK4-3121**, MK4-3821**	34.8 (3.23)	34.8 (3.23)	45 (4.18)	45 (4.18)
MK-7101	37.5 (3.48)	112.5 (10.45)	48.2 (4.48)	144.6 (10.65)
MK-7121*	37.5 (3.48)	112.5 (10.45)	48.2 (4.48)	144.6 (10.65)
MK4-7121**	112.5 (10.45)	112.5 (10.45)	144.6 (10.65)	144.6 (10.65)

Damper ratings are nominal and based on standard (not low leakage) dampers at 1" W.C. static pressure and 2000 fpm (10 m/s) velocity.

* **MK-7121** requires 15 psig (103 kPa) to be available to actuator. **Requires 20 psig (140 kPa) to be available to the actuator

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ORDERING INFORMATION

MODEL	NOMINAL OPERATING RANGE		MAXIMUM FORCE ††									NOMINAL TORQUE**					
			RETURN STROKE		POWER STROKE							PROPORTIONAL CONTROL ††					
			Based on 1.5 psig (10 kPa) pressure to actuator		15 psig (103 kPa) Supply dual pressure system		15 psig (103 kPa) Supply single pressure system†		20 psig (138 kPa) Supply single or dual pressure system†			15 psig (103 kPa) Supply dual pressure system		15 psig (103 kPa) Supply single pressure system†		20 psig (103 kPa) Supply single or dual pressure system†	
psig	kPa	lb	N	lb	N	lb	N	lb	N	in-lb	Nm	in-lb	Nm	in-lb	Nm		
MK-3101	3-8	21-55	12	53	44	196	56	249	96	427	21	2.37	21	2.37	21	2.37	
MK-3111	5-10	34-69	28	125	28	125	40	178	80	356	21	2.37	21	2.37	21	2.37	
MK-3121	8-13	55-90	52	231	4	18	16	71	56	249	7	0.79	21	2.37	21	2.37	
MK4-3121*	8-13	55-90	52	231	4	18	16	71	56	249	7	0.79	28	3.16	91	10.28	
MK-7101	3-8	21-55	30	133	110	489	140	623	240	1068	67.5	7.62	67.5	7.62	67.5	7.62	
MK-7121	8-13	55-90	130	578	10	44.5	40	178	140	623	22.5	2.54	67.5	7.62	67.5	7.62	
MK4-7121*	8-13	55-90	130	578	10	44.5	40	178	140	623	22.5	2.54	90	10.17	293	33.10	

*Factory-installed positive positioner (AK-42309-500) start point adjustable 1 to 12 psig (7 to 83 kPa) with range adjustable 2 to 13 psig (14 to 90 kPa).

**Nominal torque for actuators without positive positioner is based on 1.5 psig (10 kPa) pressure change at the actuator.

†Adjust pressure reducing valve so that listed pressures are available at the actuator.

††Force and torque based on factory set stroke and starting pressure.

ACCESSORIES

AK-42309-500	Positive positioner kit for MK-2690, MK-46xx, MK-6xxx actuators
AM-530	Crank arm for 1/2" dia. damper shaft, holes for 3-1/2" and 4-1/2" stroke
AM-542	End connector for 5/16" dia. push rod
AM-122	Linkage connector straight type
AM-533	Actuator shaft extension
AM-161-3	Damper linkage kit
AM-123	Ball joint connector (damper linkage required)