

# ACTUATORS & DAMPERS

## KELE REVOLUTION™ DIRECT COUPLED ACTUATORS SPRING RETURN KAS-27, KAS-44, KAS-88, KAS-175 SERIES



### DESCRIPTION

The Kele Revolution KAS-27, KAS-44, KAS-88, and KAS-175 Series actuators are designed and tested to provide accurate and reliable spring return control for dampers and valves. They accept two-position or modulating (tri-state and proportional in one actuator) control signals.

### FEATURES

- Auto-adapt feature for automatic stroke setting
- Signal mode switch for installation flexibility
- Self-centering hub for accurate control
- Built-in indicator shows position at a distance
- 60,000 cycles, 1.5 million repositions for long life



KAS-175-M



KAS-27-M-15



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### COMMON SPECIFICATIONS

<b>Input Impedance</b>	100 kΩ @ 0/2-10 VDC; 500Ω @ 4-20 mA	<b>Spring Return Time</b>	27, 44 in-lb: 25 seconds 88, 175 in-lb: 20 seconds
<b>Motor</b>	DC with brushes	<b>Noise</b>	<60 db @ 3' (1m)
<b>2-position</b>	DC with brushes	<b>Life Expectancy</b>	60,000 cycles, 1.5 million repositions
<b>Modulating</b>	Brushless DC	<b>Operating Temperature</b>	KAS-27-2, -44-2: -22° to 150°F (-30° to 65°C) KAS-27-M, -44-M: -40° to 150°F (-40° to 65°C) KAS-88, -175: -40° to 140°F (-40° to 60°C)
<b>Wiring</b>	Enclosed terminals	<b>Operating Humidity</b>	5 to 95% RH
<b>Action</b>	Mounting orientation direct/reverse acting	<b>Enclosure Rating</b>	NEMA 2 (IP54)
<b>2-pos./float</b>	Switch selectable direct/reverse acting	<b>Approvals</b>	CE, C-tick, plenum rated, UL File #E4436/E179109
<b>Proportional</b>	95°, ±3°	<b>Warranty</b>	5 years
<b>Rotation</b>	Crank (88, 175 in-lb only)		
<b>Manual Override</b>			
<b>Drive Time</b>	45 seconds		
<b>2-position</b>	90 seconds		
<b>Modulating</b>			

### INDIVIDUAL SPECIFICATIONS

Model	Torque	Supply Voltage	Supply VA	Control Signal	Feedback	Auxiliary Switch
KAS-27-2	27 in-lb (3 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	7 VA	Two-position	None	None
KAS-27-2-15	27 in-lb (3 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	7 VA	Two-position	None	One SPDT, 250 VAC, 8A res., 3A ind.
KAS-27-2-120	27 in-lb (3 Nm)	120 VAC, 50/60 Hz	10 VA	Two-position	None	None
KAS-27-2-120-15	27 in-lb (3 Nm)	120 VAC, 50/60 Hz	10 VA	Two-position	None	One SPDT, 250 VAC, 8A res., 3A ind.
KAS-27-M	27 in-lb (3 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	7 VA	Prop. 0/2-10 VDC, 4-20 mA, two-pos., floating	0/2-10 VDC	None
KAS-27-M-15	27 in-lb (3 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	7 VA	Prop. 0/2-10 VDC, 4-20 mA, two-pos., floating	0/2-10 VDC	One SPDT, 250 VAC, 8A res., 3A ind.
KAS-44-2	44 in-lb (5 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	8 VA	Two-position	None	None
KAS-44-2-15	44 in-lb (5 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	8 VA	Two-position	None	One SPDT, 250 VAC, 8A res., 3A ind.
KAS-44-120	44 in-lb (5 Nm)	120 VAC, 50/60 Hz	11 VA	Two-position	None	None
KAS-44-120-15	44 in-lb (5 Nm)	120 VAC, 50/60 Hz	11 VA	Two-position	None	One SPDT, 250 VAC, 8A res., 3A ind.
KAS-44-M	44 in-lb (5 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	8 VA	Prop. 0/2-10 VDC, 4-20 mA, two-pos., floating	0/2-10 VDC	None
KAS-44-M-15	44 in-lb (5 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	8 VA	Prop. 0/2-10 VDC, 4-20 mA, two-pos., floating	0/2-10 VDC	One SPDT, 250 VAC, 8A res., 3A ind.
KAS-88-2	88 in-lb (10 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	30 VA	Two-position	None	Optional add-on SW2, DPDT
KAS-88-120	88 in-lb (10 Nm)	120 VAC, 50/60 Hz	45 VA	Two-position	None	Optional add-on SW2, DPDT
KAS-88-M	88 in-lb (10 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	14 VA	Prop. 0/2-10 VDC, 4-20 mA, two-pos., floating	0/2-10 VDC	Optional add-on SW2, DPDT
KAS-175-2	175 in-lb (20 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	40 VA	Two-position	None	Optional add-on SW2, DPDT
KAS-175-120	175 in-lb (20 Nm)	120 VAC, 50/60 Hz	60 VA	Two-position	None	Optional add-on SW2, DPDT
KAS-175-M	175 in-lb (20 Nm)	20-28 VAC 50/60 Hz, 22-30 VDC	16 VA	Prop. 0/2-10 VDC, 4-20 mA, two-pos., floating	0/2-10 VDC	Optional add-on SW2, DPDT

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KAS-27, KAS-44, KAS-88, KAS-175 SERIES

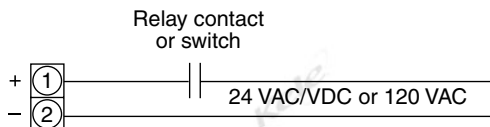
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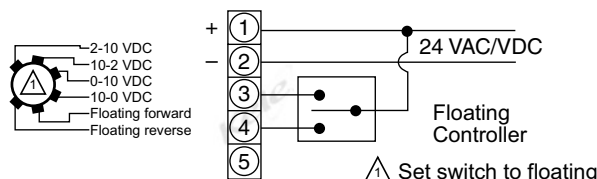
### DIMENSIONS

Model	Dimensions	Maximum Shaft Diameter	Minimum Shaft Length	Weight
KAS-27, KAS-44	3.2"H x 3.9"W x 7.0"L (8.0 x 10.0 x 17.7 cm)	0.6" (1.6 cm)	1.0" (2.5 cm)	3.5 lb (1.6 kg)
KAS-88, KAS-175	2.9"H x 3.9"W x 9.8"L (7.5 x 10.0 x 25.0 cm)	1.06" (2.7 cm)	1.0" (2.5 cm)	7.0 lb (3.2 kg)

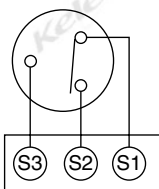
### WIRING



KAS-27-2, KAS-44-2, KAS-88-2,  
KAS-88-120, KAS-175-120  
Two-position Control

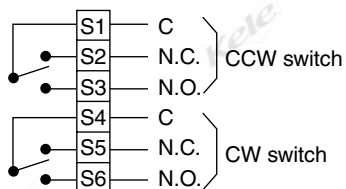


KAS-27-M, KAS-44-M, KAS-88-M, KAS-175-M  
Floating Point



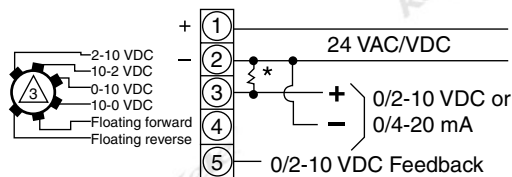
#### Internal Auxiliary Switch

Switch adjustable from 0° to 95° 500 uA resistive at 5 VDC (minimum) 250 VAC, 8A resistive, 3A inductive  
Only available on models with -15 suffix



#### SW2 Auxiliary Switch Kit

Switch ratings: Adjustable between 5° and 85°, 24 VAC/VDC, 5A resistive @ 250V, 3A inductive



\* 500Ω, 1/2W or greater resistor required when control signal is 0/4-20 mA

⚠ Set switch to modulating

KAS-27-M, KAS-44-M, KAS-88-M, KAS-175-M  
Proportional Control

### ORDERING INFORMATION

MODEL	DESCRIPTION
KAS-27-2	Spring return, 27 in-lb (3 Nm), two-position, 24 VAC/VDC, two-wire control
KAS-27-2-15	Spring return, 27 in-lb (3 Nm), two-position, 24 VAC/VDC, two-wire control, SPDT aux
KAS-27-2-120	Spring return, 27 in-lb (3 Nm), two-position, 120 VAC, two-wire control
KAS-27-2-120-15	Spring return, 27 in-lb (3 Nm), two-position, 120 VAC, two-wire control, SPDT aux
KAS-27-M	Spring return, 27 in-lb (3 Nm), modulating control (proportional and tri-state), 24 VAC
KAS-27-M-15	Spring return, 27 in-lb (3 Nm), modulating control (proportional and tri-state), 24 VAC, SPDT aux
KAS-44-2	Spring return, 44 in-lb (5 Nm), two-position, 24 VAC/VDC, two-wire control
KAS-44-2-15	Spring return, 44 in-lb (5 Nm), two-position, 24 VAC/VDC, two-wire control, SPDT aux
KAS-44-120	Spring return, 44 in-lb (5 Nm), two-position, 120 VAC, two-wire control
KAS-44-120-15	Spring return, 44 in-lb (5 Nm), two-position, 120 VAC, two-wire control, SPDT aux
KAS-44-M	Spring return, 44 in-lb (5 Nm), modulating control (proportional and tri-state), 24 VAC/VDC
KAS-44-M-15	Spring return, 44 in-lb (5 Nm), modulating control (prop./tri-state), 24 VAC/VDC, SPDT aux
KAS-88-2	Spring return, 88 in-lb (10 Nm), two-position, 24 VAC/VDC, two-wire control
KAS-88-120	Spring return, 88 in-lb (10 Nm), two-position, 120 VAC, two-wire control
KAS-88-M	Spring return, 88 in-lb (10 Nm), modulating control (proportional and tri-state), 24 VAC/VDC
KAS-175-2	Spring return, 175 in-lb (20 Nm), two-position, 24 VAC/VDC, two-wire control
KAS-175-120	Spring return, 175 in-lb (20 Nm), two-position, 120 VAC, two-wire control
KAS-175-M	Spring return, 175 in-lb (20 Nm), modulating control (proportional and tri-state), 24 VAC/VDC

32004254-002  
50000407-001  
50001194-001  
SW2  
ZG-R01

#### ACCESSORIES

Replacement shaft coupler for KAS-88, -175  
Tandem mount bracket for KAS-175 actuators  
Universal surface mount bracket with crank arm and 1/2" shaft  
Auxiliary switch kit for KA-175/301 and KAS-88/175  
500Ω, 1/2W, 1% resistor