

SuperCap rotary actuator with emergency setting function and extended functionalities for adjusting air dampers in ventilation and air-conditioning systems for building services installations and in laboratories

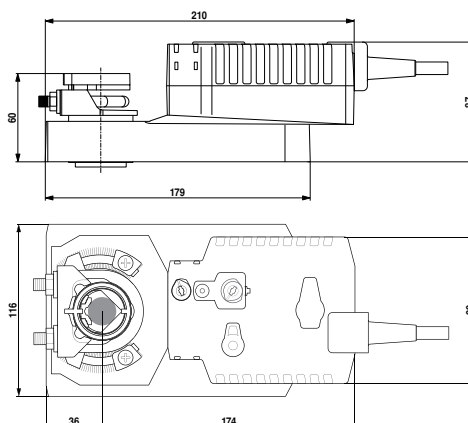
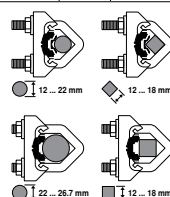
- Torque 40Nm
- Nominal voltage AC/DC 24V
- Control: Open-close
- Design life SuperCaps 15 years


Technical data

Electrical data	Nominal voltage	AC 24V, 50/60Hz / DC 24V	
	Nominal voltage range	AC 19.2...28.8V / DC 21.6...28.8V	
	Power consumption	In operation: 11W @ nominal torque At rest: 3W	
		For wire sizing: 21VA (I _{max} 20A @ 5ms)	
	Connection	Cable 1m, 3 x 0.75mm ²	
	Parallel operation	Yes (note the performance data)	
	Functional data	Torque	≥40Nm
		Inhibiting torque	≥40Nm
		Setting emergency position (POP)	0...100%, adjustable (POP rotary button) of maximum angle of rotation
		Bridging time with voltage interruption	2s
Position accuracy		±5%	
Direction of rotation		Reversible with switch ↻ / ↻	
rotation		Emergency setting position Reversible with switch 0 ... 100%	
Direction of rotation		At switch position 1 ↻ and 0 ↻, respectively	
Manual override		Gearing latch disengaged with push button	
Angle of rotation		Max. 95°↔, can be limited at both ends with adjustable mechanical end stops	
Safety	Running time Motor	150s / 90°↔	
	Emergency setting position	35s @ 0...50°C	
	Sound power level	Motor: ≤53 dB (A) @ 90 s running time Emergency setting position: ≤52 dB (A) @ 150 s running time Emergency setting position: ≤61 dB (A)	
	Position indication	Mechanical, pluggable	
	Protection class	III Safety extra-low voltage UL Class 2 Supply	
	Degree of protection	IP54 NEMA 2, UL Enclosure Type 2	
	EMC	CE according to 2004/108/EC	
	Certification	Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14 cULus according to UL 60730-1A and UL 60730-2-14 and CAN/CSA E60730-1:02	
	Mode of operation	Type 1.AA	
	Rated impulse voltage	0.8kV	
Dimensions / Weight	Control pollution degree	3	
	Ambient temperature	-30...+50°C	
	Non-operating temperature	-40...+80°C	
	Ambient humidity	95% r.h., non-condensating	
	Maintenance	Maintenance-free	
	Dimensions	See «Dimensions»	
	Weight	Approx. 2kg	

Dimensions [mm]
Dimensional drawings

Damper spindle	Length	⊙	⊞	◇
	≥52	12...26.7	≥12	≤25.5
	≥20	12...26.7	≥12	≤25.5



* When an auxiliary switch or a feedback potentiometer is used.

Parameterisable SuperCap rotary actuator with emergency setting function and extended functionalities for adjusting air dampers in ventilation and air-conditioning systems for building services installations and in laboratories

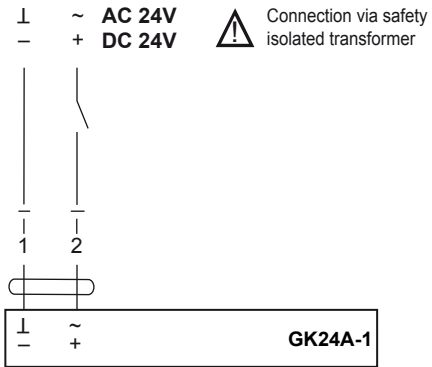
- Air damper size up to approx. 8m²
- Nominal torque 40Nm
- Nominal voltage AC/DC 24V
- Control Modulating DC (0)2...10V Variable
- Position feedback DC 2...10V Variable
- Design life SuperCaps: 15 years



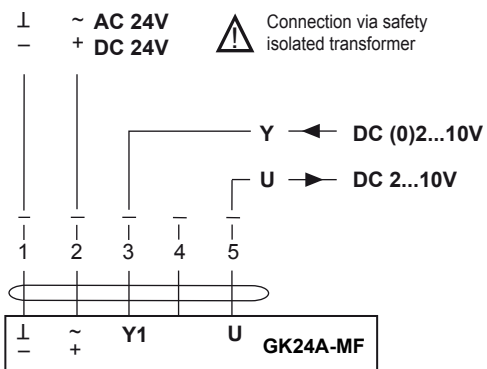
Technical data

Electrical data	Nominal voltage	AC/DC 24V	
	Nominal voltage frequency	50/60Hz	
	Nominal voltage range	AC 19.2...28.8V / DC 21.6...28.8V	
	Power consumption	In operation 11W At rest 3W	
		For wire sizing 21VA (I _{max} 20A @ 5ms)	
	Connection	Cable 1m, 3 x 0.75mm ²	
	Parallel operation	Yes (note the performance data)	
	Functional data	Torque	Min. 40Nm
		Positioning signal Y	DC 0...10V
		Positioning signal Y note	Input impedance 100kΩ
Control signal Y variable		Open-close 3-point (AC only) Modulating (DC 0...32V)	
Position feedback U		DC 2...10V	
Position feedback U note		Max. 0.5mA	
Position feedback Uvariable		Start point DC 0.5...8V End point DC 2.5...10V	
Emergency setting position (POP)		0%, adjustable in increments of 10% (POP rotary knob on 0 corresponds to left end stop)	
Emergency setting position variable		0...100%, adjustable	
Bridging time (PF)		2s	
Bridging time (PF) variable		1...10s	
Position accuracy		±5%	
Direction of motion motor		Selectable with switch 0 / 1	
Direction of motion emergency control function		Selectable with switch 0...100%	
Direction of motion note		Y = 0V: At switch position 0 (ccw rotation) / 1 (cw rotation)	
Direction of motion variable		Electronically reversible	
Manual override		Gear disengagement with push-button	
Angle of rotation		Max. 95°	
Angle of rotation note		Can be limited on both sides with adjustable mechanical end stops	
Running time motor		150s / 90°	
Motor running time variable		90...150s	
Running time emergency control position		35s / 90°	
Adaption setting range		Manual (automatic on first power-up)	
Adaption setting range variable		No action Adaption when switched on Adaption after pushing the gear disengagement button	
Override control		MAX (maximum position) = 100% MIN (minimum position) = 0% ZS (intermediate position, AC only) = 50%	
Override control variable		MAX = (MIN + 32%)...100% MIN = 0%...(MAX - 32%) ZS = MIN...MAX	
Sound power level motor		52dB(A)	
Sound power level emergency control position		61dB(A)	
Spindle driver	Universal spindle clamp reversible 12...26.7mm		
Position indication	Mechanical, pluggable		
Safety	Protection class IEC/EN	III Safety extra-low voltage	
	Protection class UL	UL Class 2 Supply	
	Degree of protection IEC/EN	IP54	
	Degree of protection NEMA/UL	NEMA 2, UL Enclosure Type 2	

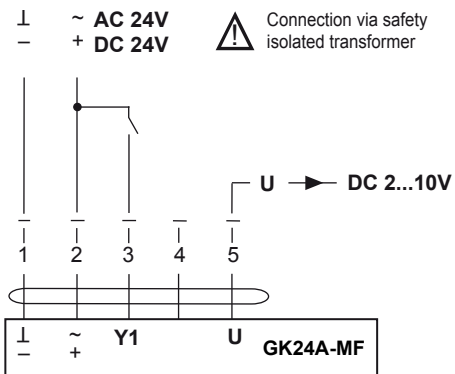
Wiring diagrams: Open/Close actuators



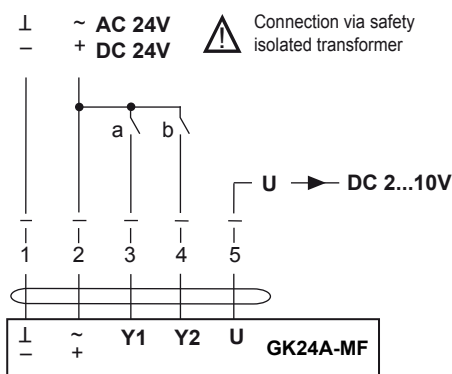
Wiring diagram: -MF



Open/Close control



3-point control



a (Y1)	b (Y2)	Reversing switch	
		stop	stop