

**Technical data sheet** 

## CQKB24-SR-LL

Modulating, Electrical Fail-Safe, 24 V, for DC 2...10 V or 4...20 mA Control Signal

- Nominal voltage AC/DC 24 V
- Control modulating 2...10 V2...10 V







## **Technical data**

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.228.8 V / DC 21.628.8 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	0.5 W
	Transformer sizing	5 VA
	Electrical Connection	22 GA plenum cable, 1 m, with 1/2" conduit connector
	Overload Protection	electronic thoughout 090° rotation
	Electrical Protection	actuators are double insulated
Functional data	Operating range Y	210 V
	Operating range Y note	420 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)
	Position feedback U	210 V
	Bridging time (PF)	2 s
	Pre-charging time	520 s
	Angle of rotation	90°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	75 s / 90°
	Running time fail-safe	<60 s
	Noise level, motor	35 dB(A)
	Noise level, fail-safe	35 dB(A)
	Position indication	pointer
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP40
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02 CE acc. to 2014/30/EU and 2014/35/EU
	Quality Standard	ISO 9001
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	35104°F [240°C]
	Storage temperature	-40176°F [-4080°C]
	Servicing	maintenance-free
Weight	Weight	0.55 lb [0.20 kg]
Materials	Housing material	UL94-5VA



Product features	
Application	Electrical fail-safe proportional ZoneTight actuator. Valve selection should be done in accordance with the flow parameters and system specifications. The actuator is mounted directly to the valve without the need for tools or additional linkage. The actuator operates in response to a 210 V or 420mA control signal.
Electrical installation	
A A A A A	<ul> <li>INSTALLATION NOTES</li> <li>Actuators with appliance cables are numbered.</li> <li>Actuators may be connected in parallel. Power consumption and input impedance must be observed.</li> <li>Actuators may also be powered by DC 24 V.</li> <li>Only connect common to negative (-) leg of control circuits.</li> <li>A 500 Ω resistor (ZG-R01) converts the 420 mA control signal to 210 V.</li> <li>Actuators with plenum cable do not have numbers; use color codes instead.</li> <li>Meets cULus requirements without the need of an electrical ground connection.</li> <li>Warning! Live electrical components!</li> <li>During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks.</li> <li>Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.</li> </ul>
Volts $\downarrow$ $\downarrow$ $\uparrow$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$ $1/2$	2 3 5 18 k (1) Common ed (2) + Hot ht (3) Y Input rg (5) U Output

2 VDC	Open 🅥
10 VDC	Close 🤿
Fail Position	100% Open