

GKRX24-MFT

Modulating, Electronic Fail-Safe, 24 V, Multi-Function Technology®



Technical Data

Power Supply	24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10%
Power Consumption Running	12 W
Power Consumption Holding	3 W
Transformer Sizing	21 VA (class 2 power source)
Electrical Connection	3ft [1m], 18 GA plenum rated cable with 1/2" conduit connector (10ft [3m] and 15ft [5m] avail.)
Overload Protection	electronic throughout 0° to 90° rotation
Operating Range Y	2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor), variable (VDC, floating point, on/off)
Input Impedance	100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mA, 1500 Ω for PWM, floating point and On/Off
Feedback Output U	2 to 10 VDC, 0.5 mA max, VDC variable
Angle of Rotation	Max. 90°, adjustable with mechanical stop
Direction of Rotation (Motor)	reversible with built-in switch
Direction of Rotation (Fail-Safe)	reversible with switch
Position Indication	reflective visual indicator (snap on)
Manual Override	external push button
Running Time (Motor)	150 sec (default), variable (90 to 150 sec)
Running Time (Fail-Safe)	35 sec
Bridge Time	programmable 0 to 10 sec (2 sec default) delay before fail-safe activates
Pre-charging Time	5 to 26 seconds
Ambient Temperature Range	-22°F to 122°F [-30°C to 50°C]
Storage Temperature Range	-40°F to 176°F [-40°C to 80°C]
Housing	NEMA 2, IP54, UL Enclosure Type 2
Agency Listings†	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC
Noise Level (Motor)	≤53 dB (A)
Noise Level (Fail-Safe)	≤61 dB (A)
Servicing	maintenance free
Quality Standard	ISO 9001

†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

Date created, 09/20/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

Wiring Diagrams
INSTALLATION NOTES

- A** Actuators with appliance cables are numbered.
- 1** Provide overload protection and disconnect as required.
- 3** Actuators may also be powered by 24 VDC.
- 5** Only connect common to negative (-) leg of control circuits.
- 7** A 500 Ω resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.
- 8** Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 VAC line.
- 10** For triac sink the Common connection from the actuator must be connected to the Hot connection of the controller. Position feedback cannot be used with a triac sink controller; the actuator internal common reference is not compatible.
- 12** IN4004 or IN4007 diode. (IN4007 supplied, Belimo part number 40155).
- 46** Actuators may be controlled in parallel. Current draw and input impedance must be observed.
- 47** Master-Slave wiring required for piggy-back applications. Feedback from Master to control input(s) of Slave(s).
- Meets cULus requirements without the need of an electrical ground connection.


WARNING! LIVE ELECTRICAL COMPONENTS!

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. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.



