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KTN
Kara Technology News

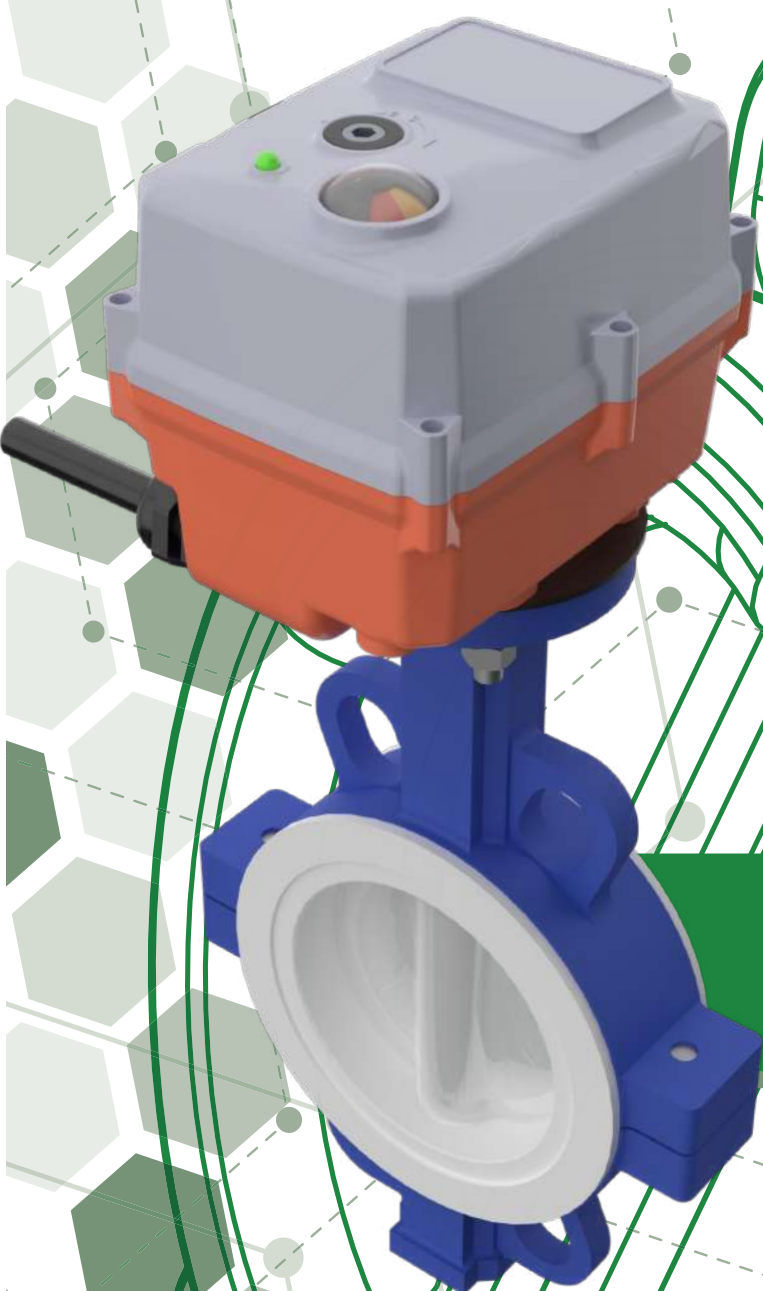


FIG. RGE S50

ELECTRIC ACTUATORS

BASIC / SMART | 50 N.m

KTN RGE SERIES 50

COMPACT ELECTRIC ACTUATOR 50Nm



BASIC SERIES:

- 50Nm torque output makes the Series 50 perfect for slightly larger size ball valves and butterfly valves
- Multi Voltage 24VAC/DC or 95-265VAC voltage range, reducing stock required to be held to cover possible on site voltage
- Fast Acting option of 1 second version available when operating on 24VDC motor. Standard run time is around 12 seconds
- Now available with the option of 17mm output drive
- Available with internal super capacitor fitted for Failsafe functionality

Technical Specifications

Rated Torque Nm (in.lbs):	60Nm Break (532) / Run 50Nm (443)	Enclosure:	PC+ PET Plastic Housing ** IP67/Nema 4X
ISO 5211:	F05/07 x 14mm Output Drive	LED Status Light:	Yes, RGB Open, Close, Alarm
Voltage Range:	24VAC/DC, 95-265VAC, 12VDC	Run Time no load:	10-12 seconds
Connecting Cable:	0.8m pre wired AC300V rated 7 core*	Weight:	1.84Kg (plastic) 2.1Kg (aluminium)
Working Angle Range:	0-270 degrees. Set via internal cams.	Temperature Range:	-20 > +80C ***
Duty Cycle:	75% rated	Shock Resistance:	<300m/S2
Sound Power Level:	Max50dB(A)	Vibration Rating:	10 to 55Hz, 1.5mm double amplitude
Position Indicator:	Mechanical Dome Window. As above	Installation:	Vertical/Horizontal - not underslung
Withstand Voltage:	500VAC for 1 minute	Maintenance:	Maintenance Free - do not remove cover
Insulation Resistance:	100MΩ/ 500VDC	Approvals:	TUV CE & EMC Certified, REACH, RoHS****
Explosion Proof:	No, not to be used in a hazardous location. Can only be used in safe area applications. ⚠		

* Standard cable length is 0.8m, we can supply extended cables to the required length. Note cable extension at additional cost

** PC+PET plastic material for cover is replacing our current standard of ABS. All actuators will be PC+PET if plastic. Aluminium cover also available

*** Note that we can extend the lower temperature range through special lubricant and grease and upgraded heater system. Speak to your sales representative

**** KTN has began the process to have all of our electric actuators approved for UL and CSA

Main Ordering Codes for Basic Series: *indicates standard options for stock product

Example : B506-PHB-14

Series >	Function >	Voltage >	Housing >	Heater >	Wiring >	Output drive >
B	Basic	50 On Off 1 220 VAC	P PC+PET*	H Included*	A 3 wire SPST	14 14mm*
		54 Failsafe 2 110 VAC	A Aluminium	O Without	B *3 wire SPDT	17 17mm
		519 Hi Speed 3 24 VAC			G 2 wire	
		4 24 VDC				
		5 95-265 VAC*				
		6 24VAC/DC*				
		7 12VDC				

*For single voltage actuators, the actuator will not have an LED light. For multivoltage actuators the LED is standard. For 1 second operation, this is only available with 24VDC single voltage motor. All actuators are as standard supplied with a heater. ⚠

KTN RGE SERIES 50

COMPACT ELECTRIC ACTUATOR 50Nm



SMART SERIES:

- Introduces OLED screen with colour display, providing the user with visual display of actuator status including any Alert conditions that might occur.
- SmartMenu provides onboard Firmware and enables user to change certain parameters in the actuator including speed, angle, accuracy.
- Local Control as standard allows the user to operate the actuator open > close via the touch buttons.
- Increased functionality including Modulating, Failsafe Modulating, Modulating Hi Speed, Modbus RS485/RTU, Multi Turn and Timer series

Technical Specifications

Rated Torque Nm (in.lbs):	60Nm Break (532) / Run 50Nm (443)	Alarm Relay:	Yes, option for fault alarm output
ISO 5211:	F05/07/05 x 14mm Output Drive	LED Status Light:	Yes, RGB Open, Close, Alarm.
Voltage Range:	24VAC/DC, 95-265VAC, 12VDC	Run Time no load:	10-12 seconds
Connecting Cable:	0.8m pre wired AC300V rated 7 core*	3 Position Function:	Yes, setup via SmartMenu firmware
Working Angle Range:	0-270 degrees. Set via digital encoder. Working angle can be digitally set via SmartMenu firmware.		
Duty cycle:	75% rated - 100% rated for Modulating	Brushless Motor:	Yes, DC brushless motor
Sound Power Level:	Max50dB(A)	Modulating Control:	Pre set at factory where applicable.
Position Indicator:	Mechanical connected to digital encoder sensor for accurate position sensing		
Local Control:	Yes via SmartMenu using touch buttons	Reverse Acting:	Yes, set via SmartMenu
Speed Control:	PWM or PULSE speed control via SmartMenu	Fail to 3rd Position:	Yes, set via SmartMenu
Explosion Proof:	No, not to be used in a hazardous location. Can only be used in safe area applications. 		

** See previous page for details on options available on pre wired cable lengths, temperature rating, cover and upcoming approvals.

Main Ordering Codes for Smart Series: *indicates standard options for stock product

Example : S5025-6PHE-14

Series >		Function >		Voltage >		Housing >		Heater >		Wiring >		Output drive >	
S50	Smart	10	On Off	4	24 VDC	P	PC+PET*	H	*Included	E	*3 wire SPDT	14	*14mm
		14	Failsafe	5	95-265VAC	A	Aluminium	O	Without	P	4-20mA	17	17mm
		19	Hi Speed	6	24VAC/DC					U	0-10V	Alarm Relay>	
		25	Modulating	7	12VDC					V	2-10V	A	Alarm
		26	Modulating failsafe							W	RS485 Modbus		
		29	Modulating Hi Speed										
		31	Modbus On Off										
		34	Modbus Failsafe										
		35	Modbus Modulating										

* For Smart series we only offer Multi Voltage versions, unless Hi Speed 24VDC to achieve 1 second run time. Note that we cannot currently offer Hi Speed Failsafe function

KTN RGE SERIES 50

COMPACT ELECTRIC ACTUATOR 50Nm

POWER & WIRING:

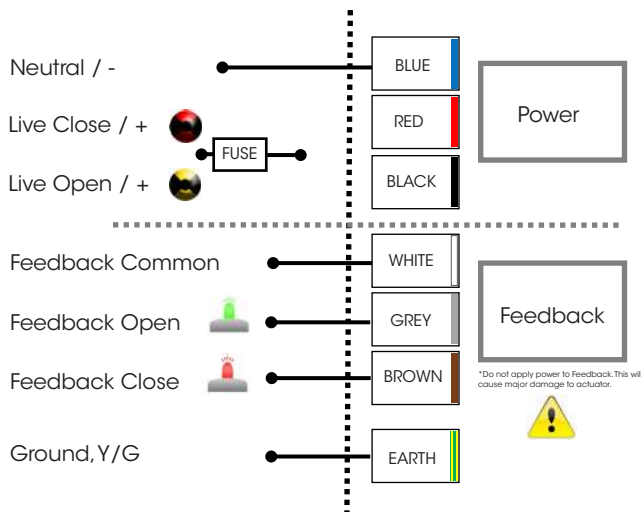
All you need to know for sizing the correct power supply for the actuators you are installing including the power requirements when the actuator is running and what we would call Peak or maximum power requirements.

Our complete range covers **10 - 400Nm**

Power Ratings for most common series: including run torque and peak current for sizing power supply

Code	Voltage	Power	Time	Fuse	Peak	Code	Voltage	Power	Time	Fuse	Peak
B505-PHB-14	95-265 VAC	25W	12s	4A	2.5A	S5025-5PHP/U-14	95-265VAC	40W	12s	4A	2.5A
B506-PHB-14	24VAC/DC	25W	12s	4A	2.5A	S5025-6PHP/U-14	24VAC/DC	40W	12s	4A	2.5A
B545-PHB-14	95-265 VAC	40W	12s	4A	2.5A	S5026-5PHP/U-14	95-265 VAC	40W	12s	4A	2.5A
B546-PHB-14	24VAC/DC	40W	6s	4A	2.5A	S5026-6PHP/U-14	24VAC/DC	40W	12s	4A	2.5A
B5195-PHB-14	95-265 VAC	40W	6s	4A	2.5A	S5029-5PHP/U-14	95-265 VAC	40W	5s	4A	2.5A
B5194-PHB-14	24VDC	40W	1s	4A	2.5A	S5029-4PHP/U-14	24VDC	40W	5s	4A	2.5A
S5010-5PHE-14	95-265 VAC	25W	12s	4A	2.5A	S5031-5PHW-14	95-265 VAC	40W	12s	4A	2.5A
S5010-6PHE-14	24VAC/DC	25W	12s	4A	2.5A	S5031-6PHW-14	24VAC/DC	40W	12s	4A	2.5A
S5014-5PHE-14	95-265 VAC	40W	12s	4A	2.5A	S5034-5PHW-14	95-265 VAC	40W	12s	4A	2.5A
S5014-6PHE-14	24VAC/DC	40W	12s	4A	2.5A	S5034-6PHW-14	24VAC/DC	40W	12s	4A	2.5A
S5019-5PHE-14	95-265 VAC	40W	5s	4A	2.5A	S5035-5PHW-14	95-265 VAC	40W	12s	4A	2.5A
S5019-4PHE-14	24VDC	40W	1s	4A	2.5A	S5035-6PHW-14	24VDC	40W	12s	4A	2.5A

Standard On Off, Failsafe and Hi-Speed Open/Close Wiring: Additional wiring options available online.

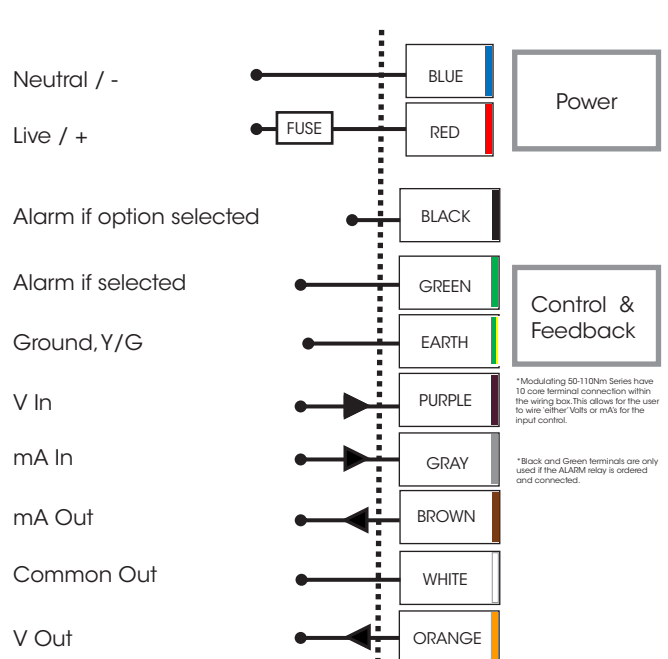


Failsafe versions have internal capacitor, this is charged whilst power is applied. When power is removed, the actuator will close or open depending on what you have ordered. Re-apply power and the capacitor will charge again and is always being charged when power is applied. When actuator is powered, heater is working.



*Failsafe via internal super capacitor

Standard Modulating including Failsafe and Hi-Speed Wiring: Additional wiring options available online.



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COMPACT ELECTRIC ACTUATOR 50Nm

MATERIALS & DIMENSIONS

Below are the materials of construction, including any options available for this specific series. Dimensional drawing can also be found below detailing key dimension details including ISO 5211 mounting details.

Version 001: 3/10/22 subject to change without notice



Cover and base is PC+PET

Screen has UV rated cover. Labels are PVC. Touch buttons on Smart series are rubber

Manual override shaft is plated steel, seal is NBR rubber.

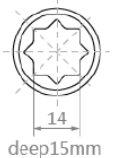
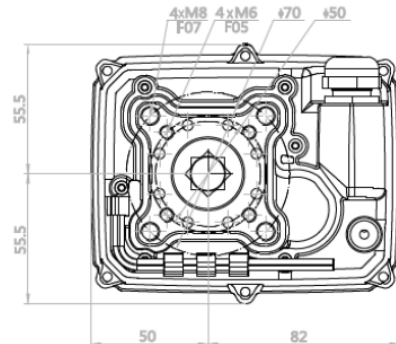
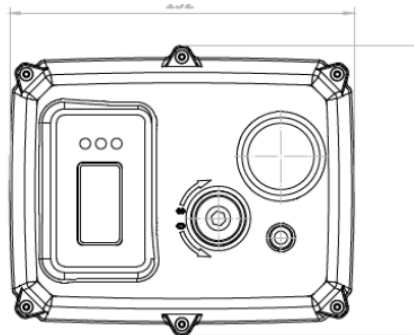
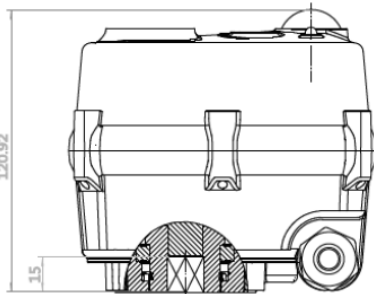
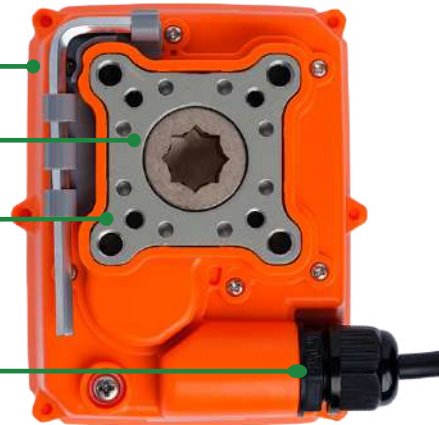
Transparent AS plastic dome indicator.

Manual Override Key is steel

Output drive is carbon steel plated finish.

Output drive is Carbon Steel.

Cable entry is Nylon



* Note that the Basic and Smart series are the same physical size.



We are able to supply our actuators with a prewired cable with IP67/68 weatherproof rated plug and play connector. We can supply both male and female connectors with a pre determined cable length required. We are able to terminate the cable for your PLC as required, loose for you to terminate or with a panel mount connector for example. Options include screw terminal and welded (soldered) connection.



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