



**Controlling  
critical  
environments.**

## **Fast running actuators for ventilation applications**

Edition 2025



























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YEARS

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to the Top.**

**BELIMO®**

# Special actuators, non fail-safe / fail safe









Actuator type		Running time motor 90°	Nominal torque	Actuating force	Height of stroke	Shaft diameter	Damper size up to approx. <sup>1)</sup>	Page
Very fast running rotary actuators, fail-safe								5
NKQ24A..		4 s	6 Nm			8...26.7 mm	 1.2 m²	
Fast running rotary actuators, non fail-safe								6
TMC..A..		35 s	2 Nm			6...20 mm	 0.4 m²	
LMC..A..		35 s	5 Nm			6...20 mm	 1 m²	
NMC..A..		35 s	10 Nm			8...26.7 mm	 2 m²	
SMC..A..		35 s	20 Nm			10...20 mm	 4 m²	
GMC..A..		35 s	40 Nm			12...26.7 mm	 8 m²	
Very fast running rotary actuators, non fail-safe								7
LMQ..A..		2.5 s	4 Nm			8...26.7 mm	 0.8 m²	
NMQ..A..		4 s	8 Nm			8...26.7 mm	 1.5 m²	
NMD..A..		20 s	8 Nm			10...20 mm	 1.5 m²	
SMQ..A..		7 s	16 Nm			12...26.7 mm	 3.2 m²	
SMD..A..		20 s	16 Nm			10...20 mm	 3.2 m²	
Very fast running linear actuators, non fail-safe								8
LHQ..A..		3.5 s / 100 mm		100 N	0...100 mm		 0.7 m²	
SHQ..A..		7 s / 100 mm		200 N	0...100 mm		 1.3 m²	

Use of damper actuators from Belimo: The actuators listed in this documentation are designed for adjusting dampers in technical building installations.

<sup>1)</sup> The recommended damper sizes are guidelines. When determining the torque or actuating force requirement of air dampers, the information provided by the damper manufacturer on the cross-section and design, as well as the installation situation and the ventilation conditions, must be observed.

# Special actuators, non fail-safe / fail-safe



Actuator type	Running time motor 90°	Fail-safe	Nominal torque	Shaft diameter	Damper size up to approx. <sup>1)</sup>	Page
RobustLine rotary actuators for extreme conditions, fail-safe						9
NKQ..P.. 	4 s	■	6 Nm	10...20 mm	 1.2 m²	
IP66/67 NEMA 4X rotary actuators for outdoor applications, non fail-safe						10
SMQ..G.. 	7 s		16 Nm	12...26.7 mm	 3.2 m²	
Rotary actuators with high torque, non fail-safe / fail-safe						11
PMCA.. 	35 s		160 Nm	17x17 mm	Special	
PKCA.. 	35 s	■	160 Nm	17x17 mm	Special	
Configuration options						16

Use of damper actuators from Belimo: The actuators listed in this documentation are designed for adjusting dampers in technical building installations.  
<sup>1)</sup> The recommended damper sizes are guidelines. When determining the torque or actuating force requirement of air dampers, the information provided by the damper manufacturer on the cross-section and design, as well as the installation situation and the ventilation conditions, must be observed.

## Bus solutions from Belimo, save costs and energy!



Bus systems can be used to exchange any volume of data from various bus participants over the same physical lines. The user has unrestricted access to control, feedback and parameters on the individual devices. Cabling expenditures are reduced by up to 90% compared with actuators with conventional wiring.

Thanks to time and material savings (cables, connecting terminals, connectors, etc.), installation work is simpler and cheaper. Additional positive selling points for bus solutions include their lower fire load and the fact that they take up less space in cable trays and control cabinets. Depending on the application and requirements, different bus systems are used.

One or two sensors can also be connected to most communicative actuators. This may be a passive resistance sensor (Pt1000, Ni1000, NTC, etc.), an active sensor (e.g. with a DC 0...10 V output) or a switching contact. Its signals are digitised in the Belimo actuator and transferred to the higher-level bus system.



The Belimo MP-Bus was specially developed as a single-client/multi-server system for HVAC actuators and sensors. It allows up to eight different control devices to be grouped together and connected to any higher-level system. It is very resistant to external interferences and does not need bus terminals.



Modbus is a communication protocol, which has become the de-facto standard. It is used commonly all around the globe and in a huge range of applications. Its simple implementation makes Modbus very popular with many manufacturers.



BACnet is a proven, widely used communication protocol for building automation. The standard is open, requires no licence and is used by a large number of international providers, universities and associations. Implementing the BACnet Standard Device Profiles and the associated BACnet Interoperability Building Blocks guarantees genuine compatibility between various BACnet devices.



KNX is a well-engineered building automation system used around the world to control systems spanning several maintenance groups, such as heaters, blinds and security technology in buildings. The KNX-certified actuators enable direct connection to the KNX network. Communication takes place via the integrated KNX interface (TP, S-Mode).



IoT actuators with Ethernet interface can exchange operating and setting data with the Belimo Cloud. It is controlled locally via an analogue signal or BACnet/Modbus. Thanks to the open client API of the Belimo Cloud, a connection to a specific cloud solution can be implemented.

# Very fast running rotary actuators, fail-safe

Nominal torque **6 Nm**  
Damper size up to approx. 1.2 m<sup>2</sup>

Nominal voltage



NKQ..A..

## Open/close

AC/DC 24 V **NKQ24A-1**

## Modulating (2...10 V)<sup>1)</sup>

AC/DC 24 V **NKQ24A-SR**

## Technical data

Shaft diameter	8...26.7 mm
Motor sound power level	≤60 dB(A) @ 4 s
Sound power level fail-safe position	≤60 dB(A) @ 4 s
Running time motor 90°	4 s
Running time fail-safe 90°	4 s
Degree of protection	IP54
Manual override	Gear train disengagement with push button
Connection	Connecting cable 1 m
Direction of rotation	Selectable with switch
Angle of rotation	Max. 95°, can be limited on both sides by adjustable mechanical end stops
Position indication	Mechanical, add-on
Ambient temperature	-30...50°C
Storage temperature	-40...80°C
Ambient humidity	95% RH, non-condensing
EMC	CE according to 2014/30/EU

<sup>1)</sup> Modulating actuators: Standard control signal Y = 0...10 V, 100 kΩ; operating range Y = 2...10 V / position feedback U = 2...10 V, max. 0.5 mA.

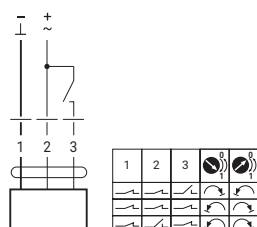
Other versions on request. Please get in touch with your local Belimo contact person.

## Electrical installation

Electrical and mechanical accessories **page 14–15**

## Open/close

**NKQ24A-1**

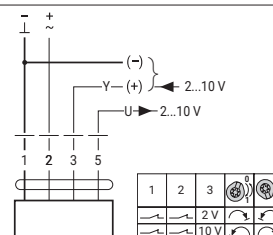


## Modulating






**NKQ24A-SR**

Y = 0...10 V

U = 2...10 V



# Fast running rotary actuators

Nominal torque	2 Nm	5 Nm	10 Nm	20 Nm	40 Nm
Damper size up to approx.	0.4 m <sup>2</sup>	1 m <sup>2</sup>	2 m <sup>2</sup>	4 m <sup>2</sup>	8 m <sup>2</sup>
Nominal voltage					
SPDT auxiliary switch					
					
	TMC..A..	LMC..A..	NMC..A..	SMC..A..	GMC..A..
Open/close, 3-point					
AC/DC 24 V	TMC24A	LMC24A			
1	TMC24A-S				
AC 230 V	TMC230A	LMC230A			GMC230A
1	TMC230A-S	LMC230A-S			
Modulating (2...10 V) <sup>1)</sup>					
AC/DC 24 V	TMC24A-SR	LMC24A-SR			
AC 230 V	TMC230ASR				
Communicative <sup>2)</sup> , configurable <sup>3)</sup>					
AC/DC 24 V			NMC24A-MP	SMC24A-MP SMC24A-MOD <sup>4)</sup>	
Technical data					
Shaft diameter	6...20 mm	6...20 mm	8...26.7 mm	10...20 mm	12...26.7 mm
Sound power level	≤40 dB(A) @ 35 s	≤45 dB(A) @ 35 s	≤45 dB(A) @ 35 s	≤55 dB(A) @ 35 s	≤45 dB(A) @ 35s
Running time motor 90°	35 s				
Manual override	Gear train disengagement with push button, can be locked				
Connection	Connecting cable 1 m				
Direction of rotation	Selectable with switch				
Angle of rotation	Max. 95°, can be limited on both sides by adjustable mechanical end stops				
Position indication	Mechanical, add-on				
Degree of protection	IP54				
Ambient temperature	-30...50°C				
Storage temperature	-40...80°C				
Ambient humidity	95% RH, non-condensing				
EMC	CE according to 2014/30/EU				

<sup>1)</sup> Modulating actuators: Standard control signal Y = 0...10 V, 100 kΩ; operating range Y = 2...10 V / position feedback U = 2...10 V, max. 1 mA.

<sup>2)</sup> You can find suitable system diagrams at [www.belimo.com](http://www.belimo.com).

<sup>3)</sup> Configurable with Belimo Assistant 2 or service tool ZTH EU (e.g., for MP types, control, feedback, running time, and other functions can be set).

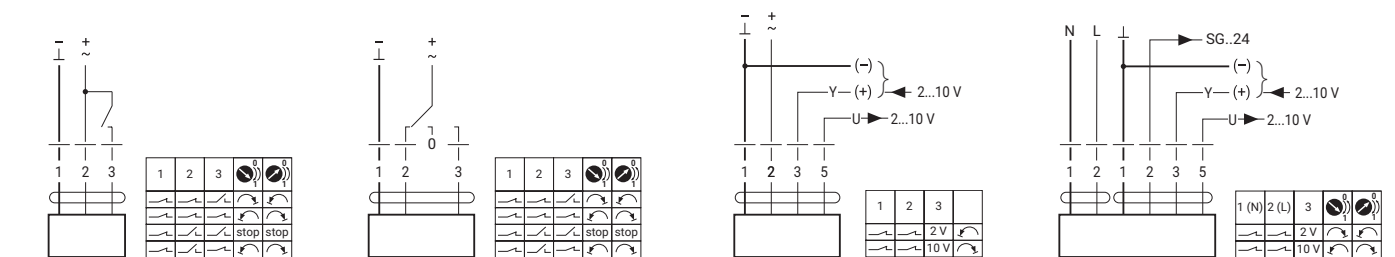
<sup>4)</sup> All MOD versions work with Modbus and BACnet.

Other versions on request. Please get in touch with your local Belimo contact person.






## Electrical installation

Electrical and mechanical accessories **page 12-13**

Open/close	3-point	Modulating	Configurable	Modulating
..MC24A, TMC24A-S, ..MC230A, TMC230A-S	..MC24A, TMC24A-S, ..MC230A, TMC230A-S	..MC24A-SR	..MC24A-MP	TMC230ASR
		Y = 2...10 V U = 2...10 V	Y = variable U = variable	Y = 2...10 V U = 2...10 V



# Very fast running rotary actuators

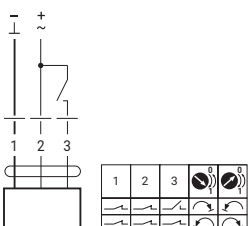
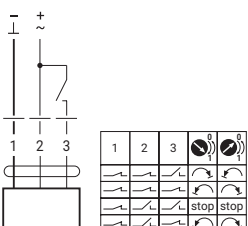
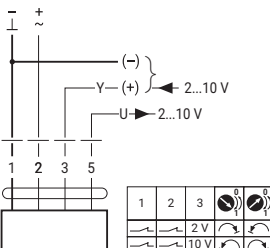
Nominal torque	4 Nm	8 Nm	8 Nm	16 Nm	16 Nm
Damper size up to approx.	0.8 m <sup>2</sup>	1.5 m <sup>2</sup>	1.5 m <sup>2</sup>	3.2 m <sup>2</sup>	3.2 m <sup>2</sup>
Nominal voltage	    				
	LMQ..A..	NMQ..A..	NMD..A..	SMQ..A..	SMD..A..
Open/close					
AC/DC 24 V	LMQ24A	NMQ24A		SMQ24A	
Open/close, 3-point					
AC/DC 24 V					SMD24A
AC 230 V			NMD230A		SMD230A
Modulating (2...10 V) <sup>1)</sup>					
AC/DC 24 V	LMQ24A-SR	NMQ24A-SR		SMQ24A-SR	
Technical data					
Shaft diameter	8...26.7 mm	8...26.7 mm	10...20 mm	12...26.7 mm	10...20 mm
Sound power level	≤54 dB(A) @ 2.5 s	≤56 dB(A) @ 4 s	≤55 dB(A) @ 20 s	≤63 dB(A) @ 7 s	≤55 dB(A) @ 20 s
Running time motor 90°	2.5 s	4 s	20 s	7 s	20 s
Ambient temperature	-30...40°C (40...50°C limited) <sup>2)</sup>	-30...40°C (40...50°C limited) <sup>2)</sup>	-30...50°C	-30...40°C (40...50°C limited) <sup>2)</sup>	-30...50°C
Manual override	Gear train disengagement with push button, can be locked				
Connection	Connecting cable 1 m				
Direction of rotation	Selectable with switch				
Angle of rotation	Max. 95°, can be limited on both sides by adjustable mechanical end stops				
Position indication	Mechanical, add-on				
Degree of protection	IP54				
Storage temperature	-40...80°C				
Ambient humidity	95% RH, non-condensing				
EMC	CE according to 2014/30/EU				

<sup>1)</sup> Modulating actuators: Standard control signal Y = 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = 2...10 V, max. 0.5 mA for LMQ..A, NMQ..A, SMQ..A.

<sup>2)</sup> Please get in touch with your local Belimo contact person.  
Other versions on request.

## Electrical installation

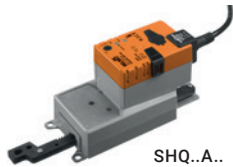
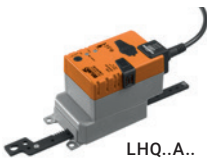
Electrical and mechanical accessories **page 12–13**

Open/close	3-point	Modulating
..MQ24A	NMD..A / SMD..A	..MQ24A-SR
		Y = 2...10 V U = 2...10 V
		

# Very fast running linear actuators

Actuating force	100 N	200 N
Damper size up to approx.	0.7 m²	1.3 m²

Nominal voltage



Open/close		
AC/DC 24 V	LHQ24A100	SHQ24A100
Modulating (2...10 V) <sup>1)</sup>		
AC/DC 24 V	LHQ24A-SR100	SHQ24A-SR100
Technical data		
Height of stroke	0...100 mm; adjustable in 20 mm increments from 40...100 mm	0...100 mm; adjustable in 20 mm increments from 40...100 mm
Sound power level	≤56 dB(A) @ 3.5 s	≤56 dB(A) @ 7 s
Running time motor 100 mm	3.5 s	7 s
Manual override	Gear train disengagement with push button, can be locked	
Connection	Connecting cable 1 m	
Direction of stroke	Selectable with switch	
Degree of protection	IP54	
Ambient temperature	-30...40°C (40...50°C limited) <sup>2)</sup>	
Storage temperature	-40...80°C	
Ambient humidity	95% RH, non-condensing	
EMC	CE according to 2014/30/EU	

<sup>1)</sup> Modulating actuators: Standard control signal Y = 0...10 V, 100 kΩ; operating range Y = 2...10 V / position feedback U = 2...10 V, max. 0.5 mA.  
<sup>2)</sup> Please get in touch with your local Belimo contact person.  
Other versions on request.

Electrical installation

Electrical and mechanical accessories **page 12–13**

Open/close	Modulating
..HQ24A100	..HQ24A-SR
Y = 2...10 V / U = 2...10 V	

# RobustLine rotary actuators for extreme conditions, fail-safe

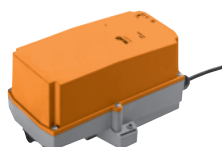
Nominal torque

6 Nm

Damper size up to approx.

1.2 m<sup>2</sup>

Nominal voltage



NKQ..P

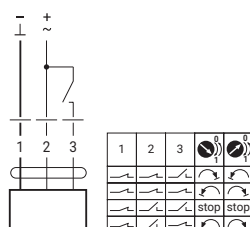
Open/close	Without auxiliary switch
AC/DC 24 V	<b>NKQ24P-1</b>
Modulating (2...10 V) <sup>1)</sup>	
AC/DC 24 V	<b>NKQ24P-SR</b>
Technical data	
Shaft diameter	10...20 mm
Running time motor 90°	4 s
Running time fail-safe 90°	4 s
Manual override	Gear train disengagement with push button
Motor sound power level	≤60 dB(A) @ 4 s
Sound power level fail-safe position	≤60 dB(A) @ 4 s
Ambient temperature	-30...50°C
Connection	Connecting cable 1 m, FRNC
Direction of rotation	Selectable with switch
Angle of rotation	Max. 95°, can be limited on both sides by adjustable mechanical end stops
Position indication	Mechanical, add-on
Degree of protection	IP66/67 / NEMA 4X
Storage temperature	-40...80°C
Ambient humidity	100% RH
EMC	CE according to 2014/30/EU

<sup>1)</sup> Modulating actuators: Standard control signal Y = 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = 2...10 V, max. 0.5 mA for NKQ..P.  
Other versions on request. Please get in touch with your local Belimo contact person

## Electrical installation

Electrical and mechanical accessories **page 14–15**

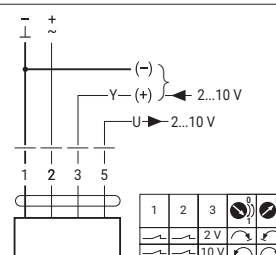
### Open/close

**NKQ24P-1**

### Modulating

**NKQ24P-SR**

Y = 0...10 V / U = 2...10 V




# IP66/67 / NEMA 4X rotary actuators for outdoor applications, non fail-safe

Nominal torque

16 Nm

Damper size up to approx.

3.2 m²

Nominal voltage	Running time motor 90°		SMQ..G
Open/close		Without auxiliary switch	
AC/DC 24 V	7 s	SMQ24G	
Modulating (2...10 V) <sup>1)</sup>			
AC/DC 24 V	7 s	SMQ24G-SR	

Technical data	
Shaft diameter	12...26.7 mm
Manual override	Gear train disengagement with push button, can be locked
Motor sound power level	≤63 dB(A) @ 7 s
Ambient temperature	-30...40°C <sup>4)</sup> (40...50°C limited) <sup>5)</sup>
Connection	Connecting cable 1 m, FRNC
Direction of rotation	Selectable with switch
Angle of rotation	Max. 95°, can be limited on both sides by adjustable mechanical end stops
Position indication	Mechanical, add-on
Degree of protection	IP66/67 / NEMA 4X
Storage temperature	-40...80°C
Ambient humidity	100% RH
EMC	CE according to 2014/30/EU

<sup>1)</sup> Modulating actuators: Positioning signal Y = 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = 2 ...10 V, max. 0.5 mA for SMQ..G.

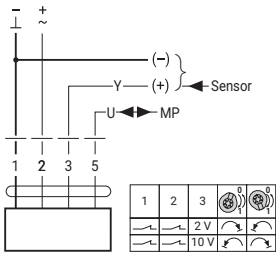
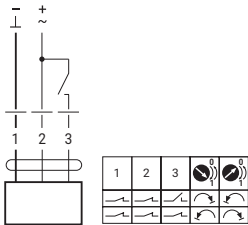
<sup>2)</sup> Please contact your local Belimo contact person.

Other versions on request.

Electrical installation

Electrical and mechanical accessories page 14–15

Open/close	Modulating
SMQ24G	SMQ24G-SR..
	Y = 0...10 V
	U = 2...10 V



# Actuators with high torque, non fail-safe / fail-safe

Nominal torque

160 Nm

Damper size up to approx.

Special

Nominal voltage



PMCA..



PKCA..

## Communicative, configurable

AC 24...240 V  
DC 24...125 V

### PMCA-S2-T

### PMCA-BAC-S2-T

### PKCA-BAC-S2-T

#### Control

Open/close

Modulating (2...10 V)

Modulating (2...10 V)

3-point

Modulating (4...20 mA)

Modulating (4...20 mA)

BACnet MS/TP

BACnet MS/TP

Modbus RTU

Modbus RTU

MP-Bus

MP-Bus

Open/close

Open/close

3-point

3-point

## Technical data

Fail-safe

–

–

■

Form fit

17x17 mm

17x17 mm

17x17 mm

Running time motor 90°

35 s (30...120 s adjustable)

35 s (30...120 s adjustable)

35 s (30...120 s adjustable)

Running time fail-safe 90°

–

–

30 s

Motor sound power level

68 dB(A)

68 dB(A)

68 dB(A)

Sound power level fail-safe position

–

–

68 dB(A)

Configuration, commissioning, maintenance

Belimo Assistant 2, ZTH EU

Manual override

Hand crank

Auxiliary switches

2x SPDT

Connection

Connecting terminals

Direction of rotation

Selectable with Tool

Position indication

Mechanical

Degree of protection

IP66/67 / NEMA 4X

Ambient temperature

–30...40°C

Storage temperature

–40...80°C

Ambient humidity

100% RH

EMC

CE according to 2014/30/EU

## Electrical installation

Electrical and mechanical accessories **page 14–15**

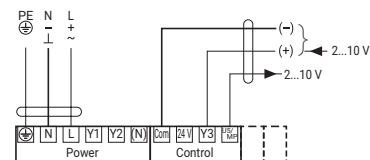
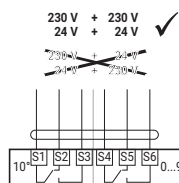
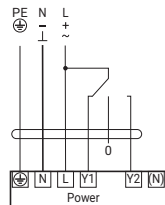
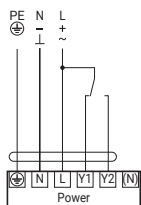
### Open/close

### 3-point

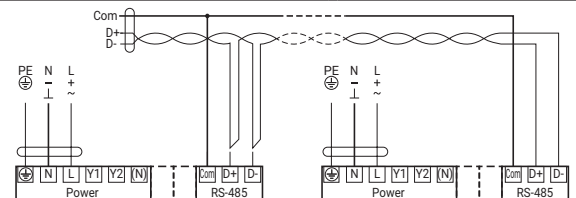
### Modulating

### PMCA-S2-T / PMCA-BAC-S2-T / PKCA-BAC-S2-T

### PMCA-BAC-S2-T / PKCA-BAC-S2-T



### Communicative (BACnet, Modbus)



# Special actuators, non fail-safe



## Fast running rotary actuators

## Very fast running rotary actuators

## Very fast running linear actuators



## Mechanical accessories

		TMC..A..	LMC..A..	NMC..A..	SMC..A..	GMC..A..	LMQ..A..	NMQ..A..	NMD..A..	SMQ..A..	SMD..A..	LHQ..A..	SHQ..A..
Shaft extensions		AV6-20	AV6-20	AV8-25	AV8-25 AV12-25-I		AV8-25	AV8-25	AV8-25 AV12-25-I		AV8-25 AV12-25-I		
Adapter for auxiliary switch and feedback potentiometer							Z-SPA	Z-SPA		Z-SPA			
End stop kits, rotary support, coupling pieces												Z-AS2 Z-DS1 Z-KS2	Z-AS1 Z-DS1 Z-KS1
Baseplate extensions				Z-NMA	Z-SMA	Z-GMA	Z-NMA			Z-SMA			
Form fit inserts <sup>1)</sup>		ZF..-LMA ZFRL-LMA	ZF..-LMA ZFRL-LMA	ZF..-NSA ZF8-NMA	ZF..-NSA		ZF..-NSA ZF8-NMA	ZF..-NSA	ZF..-NSA		ZF..-NSA		
Lever for actuator drive shafts				AH-20 <sup>2)</sup> AH-25	AH-20 AH-25 <sup>3)</sup>	AH-GMA	AH-20 <sup>2)</sup> AH-25	AH-20 <sup>3)</sup> AH-25	AH-20	AH-GMA	AH-20 AH-25 <sup>4)</sup>		
Lever for damper shafts				KH8	KH8	KH10	KH8	KH8	KH8	KH10	KH8		
Shaft clamps, one-sided		K-ELA..	K-ELA..	K-ENMA K-ENSA	K-ENSA K-ENSA-I		K-ENMA K-ENSA	K-ENSA	K-ENSA K-ENSA-I		K-ENSA K-ENSA-I		
Shaft clamps, reversible				K-NA	K-NA		K-NA	K-NA			K-NA		
Ball joints				KG8 KG10A	KG8 KG10A	KG10A	KG8 KG10A	KG8 KG10A	KG8 KG10A	KG10A	KG8 KG10A		
Mounting kits for linkage operation				ZG-NMA	ZG-SMA	ZG-GMA	ZG-NMA	ZG-NMA		ZG-GMA	ZG-SMA		
Position indicator		Z-PI	Z-PI	Z-PI	Z-PI	Z-PI	Z-PI	Z-PI	Z-PI	Z-PI	Z-PI		

<sup>1)</sup> Form fit inserts: TMC..A.. / LMC..A.: 8x8 mm, 10x10 mm, 12x12 mm; NMC..A.: 8x8 mm, 10x10 mm, 12x12 mm, 16x16 mm;  
SMC..A.. / SMD..A.. / NMD..A.: 10x10 mm, 12x12 mm, 15x15 mm, 16x16 mm; LMQ..A.: 8x8 mm, 10x10 mm, 12x12 mm, 15x15 mm, 16x16 mm;  
NMQ..A.: 10x10 mm, 12x12 mm, 15x15 mm, 16x16 mm.

<sup>2)</sup> Only in combination with reversible shaft clamp K-NA.

<sup>3)</sup> Only in combination with reversible shaft clamp K-SA.

<sup>4)</sup> Only in combination with one-sided shaft clamp K-ENSA.

# Special actuators, non fail-safe








## Fast running rotary actuators

## Very fast running rotary actuators

## Very fast running linear actuators



### Electrical accessories

Auxiliary switches		S1A S2A	S1A S2A	S1A S2A	S1A S2A	S1A S2A	S1A <sup>1)</sup> S2A <sup>1)</sup>	S1A <sup>1)</sup> S2A <sup>1)</sup>	S1A S2A	S1A <sup>1)</sup> S2A <sup>1)</sup>	S1A S2A		
Room temperature controller for modulating actuators		CR24..	CR24..	CR24..	CR24..		CR24..	CR24..		CR24..		CR24..	CR24..
Feedback potentiometers		P140A P1000A P10000A	P140A P1000A P10000A	P140A P1000A P10000A	P140A P1000A P10000A	P140A P1000A P10000A	P140A <sup>1)</sup> P1000A <sup>1)</sup> P10000A <sup>1)</sup>	P140A <sup>1)</sup> P1000A <sup>1)</sup> P10000A <sup>1)</sup>	P140A P1000A P10000A	P140A <sup>1)</sup> P1000A <sup>1)</sup> P10000A <sup>1)</sup>	P140A P1000A P10000A		
Signal converter voltage/current for modulating actuators		Z-UIC	Z-UIC	Z-UIC	Z-UIC		Z-UIC	Z-UIC		Z-UIC		Z-UIC	Z-UIC
Positioner / range controller for modulating actuators		CRP24-B1 SGA24 SGE24 SGF24	CRP24-B1 SGA24 SGE24 SGF24	CRP24-B1 SGA24 SGE24 SGF24	CRP24-B1 SGA24 SGE24 SGF24		CRP24-B1 SGA24 SGE24 SGF24	CRP24-B1 SGA24 SGE24 SGF24		CRP24-B1 SGA24 SGE24 SGF24		CRP24-B1 SGA24 SGE24 SGF24	CRP24-B1 SGA24 SGE24 SGF24

### Tools

Service tools <sup>2)</sup>				ZTH EU	ZTH EU								
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<sup>1)</sup> Auxiliary switch and feedback potentiometer on LMQ..A, NMQ..A and SMQ..A actuators in combination with a reversible shaft clamp (mounted underneath for short shaft installation) can only be used together with adapter Z-SPA.

<sup>2)</sup> For configurable actuators.

## Special actuators, non fail-safe / fail-safe



### Very fast running rotary actuators

#### Fail-safe

NMQ..A..



### RobustLine rotary actuators for extreme conditions

#### Fail-safe

NKQ..P..



### IP66/67 / NEMA 4X rotary actuators for outdoor applications

#### Non fail-safe

SMQ..G..



### Actuators with high torque












#### Non fail-safe / fail-safe

PMCA..

PKCA..








### Mechanical accessories










Shaft extension		AV8-25			
Lever for actuator drive shafts		AH-25			
Lever for actuator drive shafts				AH-GMA	
Lever for damper shafts		KH8			
Lever for damper shafts				KH10	
Shaft clamp, reversible		K-NA			
Ball joints		KG8 KG10A		KG10A	
Mounting kit for linkage operation		ZG-SMA		ZG-GMA	
Position indicator		Z-PI			
Adapter for auxiliary switch and feedback potentiometer		Z-PSA			
Adapter kit					ZPR..

# Special actuators, non fail-safe / fail-safe



Very fast running rotary actuators	RobustLine rotary actuators for extreme conditions	IP66/67 / NEMA 4X rotary actuators for outdoor applications	Actuators with high torque	
Fail-safe	Fail-safe	Non fail-safe	Non fail-safe / fail-safe	
NMQ..A..	NKQ..P..	SMQ..G..	PMCA..	PKCA..
				

## Electrical accessories

Heaters with humidistat AC 230 V (only available fitted at the factory)				HH230-MG	
Heaters with humidistat AC/DC 24 V (only available fitted at the factory)				HH24-MG	
Heaters with thermostat AC 230 V (only available fitted at the factory)				HT230-MG	
Heaters with thermostat AC/DC 24 V (only available fitted at the factory)				HT24-MG	
Auxiliary switch		S1A <sup>1)</sup> S2A <sup>1)</sup>		S2A	
Room temperature controller for modulating actuators		CR24..	CR24..	CR24..	
Feedback potentiometer		P140A <sup>1)</sup> P1000A <sup>1)</sup> P10000A <sup>1)</sup>		P..A GR <sup>2)</sup>	
Signal converter voltage/current for modulating actuators		Z-UIC	Z-UIC	Z-UIC	
Positioner/range controller for modulating actuators		CRP24-B1 SGA24 SGE24 SGF24	CRP24-B1 SGA24 SGE24 SGF24	CRP24-B1 SGA24 SGE24 SGF24	

## Tools

Service tools <sup>3)</sup>				ZTH-EU	ZTH-EU
Belimo Assistant 2					■

<sup>1)</sup> Auxiliary switch and feedback potentiometer on SMQ..A actuators in combination with a reversible shaft clamp (mounted underneath for short shaft installation) can only be used together with adapter Z-SPA.

<sup>3)</sup> Resistance values 140 Ω, 1 kΩ, 10 kΩ available.

<sup>4)</sup> For configurable actuators

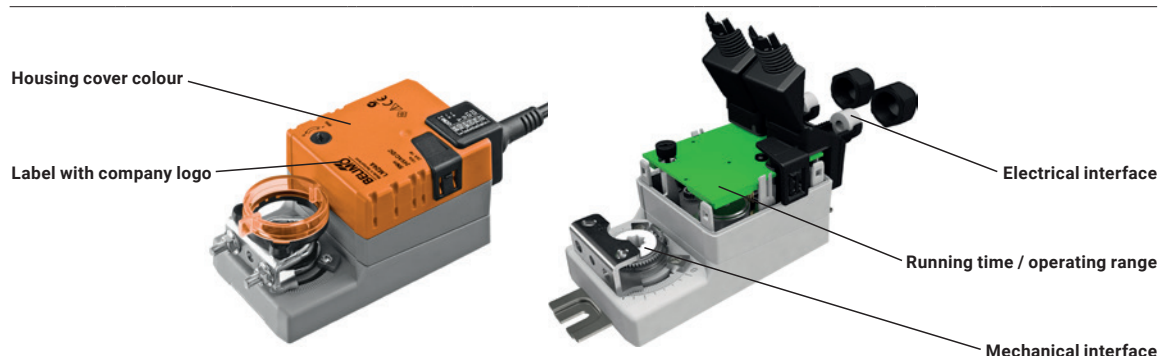
For form fit inserts, please get in touch with your local Belimo contact person.

# Configuration options

Some actuator product ranges permit adaptation to special customer preferences. These allow - on the basis of existing components - a selection of different cable lengths, mechanical interfaces, running times and operating ranges. Please get in touch with your local Belimo contact person.






## Example

### LM..A..



Numeration is not exhaustive.

## Configuration

Actuator range	Rotary actuators				
	CM..	LM..A..	NM..A..	SM..A..	GM..A..
					
<b>Housing cover colour</b>	orange grey	orange grey	orange grey	orange grey	orange grey
<b>Label with company logo, colour</b>	Label: transparent Font: black	Label: transparent Font: black blue white	Label: transparent Font: black blue white	Label: transparent Font: black blue white	Label: transparent Font: black blue white
<b>Mechanical interface</b>	Shaft clamp, one-sided 6...12.7 mm Form fit 6x6 mm Form fit 8x8 mm Form fit 10x10 mm	Shaft clamp, one-sided 6...20 mm Form fit 8x8 mm Form fit 10x10 mm Form fit 12x12 mm	Shaft clamp, one-sided 8...26.7 mm Shaft clamp, reversible 8...20 mm Form fit 8x8 mm Form fit 10x10 mm Form fit 12x12 mm Form fit 16x16 mm	Shaft clamp, one-sided 8...26.7 mm Shaft clamp, reversible 10...20 mm Form fit 10x10 mm Form fit 12x12 mm Form fit 16x16 mm	Shaft clamp, reversible 12...26.7 mm
<b>Electrical interface</b>	Terminal connection IP20 Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC	Terminal connection IP20 Terminal connection IP54 Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC	Terminal connection IP20 Terminal connection IP54 Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC	Terminal connection IP20 Terminal connection IP54 Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC	Terminal connection IP20 Terminal connection IP54 Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC
<b>Running time</b>	35 s 45 s 75 s	35 s 45 s 90 s 150 s	45 s 90 s 150 s	90 s 150 s	90 s 150 s
<b>Operating range</b>	2...10 V 0.5...10 V Adaptation option	2...10 V 0.5...10 V Adaptation option	2...10 V 0.5...10 V Adaptation option	2...10 V 0.5...10 V Adaptation option	2...10 V 0.5...10 V Adaptation option
<b>Packaging</b>	Single pack Multipack at 20 pieces	Single pack Multipack at 20 pieces	Single pack Multipack at 20 pieces	Single pack Multipack at 20 pieces	Single pack Multipack at 20 pieces
<b>General</b>	Feasibility of the combinations on request Minimum order quantity with coloured label or customer logo: 20 pieces.				

# Configuration options

Some actuator product ranges permit adaptation to special customer preferences. These allow - on the basis of existing components - a selection of different cable lengths, mechanical interfaces, running times and operating ranges. Please get in touch with your local Belimo contact person.

## Example

EF..A

EF..G

Label with company logo



Running time / operating range





Electrical interface

Heating

Mechanical interface

Numeration is not exhaustive.

## Configuration

Actuator range	Rotary actuators, fail-safe		Very fast running rotary actuators		Linear actuators	
	NF..A.. / SF..A..	EF..A / EF..G	LMQ..A..		LH..A..	
						
Housing cover colour	orange grey	–	orange grey		orange grey	
Label with company logo, colour	Label: orange blue grey Font: black white black	Label: orange grey Font: black	Label: transparent blue black Font: black white white		Label: transparent black white Font: black white white	
Mechanical interface	Shaft clamp, reversible 10...25.4 mm Form fit 10x10 mm Form fit 12x12 mm Form fit 16x16 mm	Shaft clamp reversible 12...26.7 mm	Shaft clamp, one-sided 8...26.7 mm Shaft clamp, reversible Form fit 8x8 mm Form fit 10x10 mm Form fit 12x12 mm Form fit 16x16 mm		Without stroke limitation With stroke limitation	
Electrical interface	Terminal connection IP20 Terminal connection IP54 Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC	Terminal connection IP66 Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC	Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC		Terminal connection IP20 Terminal connection IP54 Cable 1 m, PVC Cable 1 m, FRNC Cable 3 m, FRNC Cable 5 m, FRNC	
Running time	45 s 75 s 90 s 150 s	75 s 90 s 150 s	2.5 s 4 s 5 s 7 s 10 s		75 s/100 mm 90 s/100 mm 120 s/100 mm 150 s/100 mm	
Operating range	2...10 V 0.5...10 V Adaptation option	2...10 V 0.5...10 V Adaptation option	2...10 V 0.5...10 V Adaptation option		2...10 V 0.5...10 V Adaptation option	
Packaging	Single pack Multipack at 20 pieces	Single pack Multipack at 20 pieces	Single pack Multipack at 20 pieces		Single pack Multipack at 20 pieces	
Special		Heating				
General	Feasibility of the combinations on request Minimum order quantity with coloured label or customer logo: 20 pieces					

# All inclusive.

Belimo is the global market leader in the development, production, and sales of field devices for the energy-efficient control of heating, ventilation and air-conditioning systems. The focus of our core business is on damper actuators, control valves, sensors and meters.

Always focusing on customer value, we deliver more than only products. We offer you the complete product range for the regulation and control of HVAC systems from a single source. At the same time, we rely on tested Swiss quality with a five-year warranty. Our worldwide representatives in over 80 countries guarantee short delivery times and comprehensive support through the entire product life. Belimo does indeed include everything.

The "small" Belimo devices have a big impact on comfort, energy efficiency, safety, installation and maintenance.

In short: Small devices, big impact.



5-year warranty



On site around the globe



Complete product range



Tested quality



Short delivery times



Comprehensive support



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