



























**Controlling
critical
environments.**

Fast running actuators for ventilation applications

Edition 2022

Special actuators fail safe / non fail-safe









Actuator type	Running time motor 90°	Nominal torque ¹⁾	Actuating force	Stroke range	Shaft diameter	Damper size up to approx. ¹⁾	Page
Very fast running rotary actuators, fail-safe							9
NKQ..A.. 	4 s	6 Nm			8...26.7 mm	 1.2 m ²	
Fast running rotary actuators, non fail-safe							10
TMC..A.. 	35 s	2 Nm			6...20 mm	 0.4 m ²	
LMC..A.. 	35 s	5 Nm			6...20 mm	 1 m ²	
NMC..A.. 	35 s	10 Nm			8...26.7 mm	 2 m ²	
SMC..A.. 	35 s	20 Nm			10...20 mm	 4 m ²	
Very fast running rotary actuators, non fail-safe							11
LMQ..A.. 	2.5 s	4 Nm			8...26.7 mm	 0.8 m ²	
NMQ..A.. 	4 s	8 Nm			8...26.7 mm	 1.5 m ²	
NMD..A.. 	20 s	8 Nm			10...20 mm	 1.5 m ²	
SMQ..A.. 	7 s	16 Nm			12...26.7 mm	 3.2 m ²	
SMD..A.. 	20 s	16 Nm			10...20 mm	 3.2 m ²	
Very fast running linear actuators, non fail-safe							12
LHQ..A.. 	3.5 s / 100 mm		100 N	0...100 mm		 0.7 m ²	
SHQ..A.. 	7 s / 100 mm		200 N	0...100 mm		 1.3 m ²	

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

¹⁾ When calculating the torque or actuating force required to operate air dampers, it is essential to take into account all the data supplied by the damper manufacturer concerning cross sectional area, design, place of installation and air flow conditions. The recommended damper sizes are guidelines.

Special actuators fail safe / non fail-safe



Actuator type	Running time motor 90°	Fail-safe	Nominal torque ¹⁾	Shaft diameter	Damper size up to approx. ¹⁾	Page
RobustLine rotary actuators for extreme conditions, fail-safe						13
NKQ..P. 	4 s	■	6 Nm	10...20 mm	 1.2 m ²	
IP66/67 / NEMA 4X rotary actuators for outdoor applications, non fail-safe						14
SMQ..G.. 	7 s		16 Nm	12...26.7 mm	 3.2 m ²	
Rotary actuators with high torque, non-fail-safe/fail-safe						15
PMCA.. 	35 s		160 Nm	17x17 mm	Special	
PKCA.. 	35 s	■	160 Nm	17x17 mm	Special	
Configuration options						16

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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. Further positive selling points for bus solutions include their lower fire load and the fact that they take up less space in cable trays and switch 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 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 master-slave system for HVAC actuators and sensors. It allows up to eight different HVAC performance 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, for example 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 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.

Special actuators non fail-safe



Fast running rotary actuators

TMC..A..

LMC..A..

NMC..A..

SMC..A..

Very fast running rotary actuators

LMQ..A..

NMQ..A..

NMD..A..

SMQ..A..

SMD..A..

Very fast running linear actuators

LHQ..A..

SHQ..A..



Mechanical accessories

Shaft extension		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 switches and feedback potentiometer						Z-SPA	Z-SPA		Z-SPA		
End stop kit, rotary support, coupling piece										Z-AS2 Z-DS1 Z-KS2	Z-AS1 Z-DS1 Z-KS1
Baseplate extension				Z-NMA	Z-SMA	Z-NMA			Z-SMA		
Form fit inserts ¹⁾		ZF..-LMA ZFRL..-LMA	ZF..-LMA ZFRL..-LMA	ZF..-NSA ZF8-NMA	ZF..-NSA	ZF..-NSA ZF8-NMA	ZF..-NSA	ZF..-NSA		ZF..-NSA	
Levers for actuator shafts				AH-20 ²⁾ AH-25	AH-20 AH-25 ³⁾	AH-20 ²⁾ AH-25	AH-20 ³⁾ AH-25	AH-20	AH-GMA	AH-20 AH-25 ⁴⁾	
Lever for damper shafts				KH8	KH8	KH8	KH8	KH8	KH10	KH8	
Shaft clamp one-side		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 clamp reversible				K-NA	K-SA	K-NA	K-SA			K-SA	
Ball joints				KG8 KG10A	KG8 KG10A	KG8 KG10A	KG8 KG10A	KG8 KG10A	KG10A	KG8 KG10A	
Mounting kit for linkage operation				ZG-NMA	ZG-SMA	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	

¹⁾ 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.

²⁾ Only in combination with reversible shaft clamp K-NA.

³⁾ Only in combination with reversible shaft clamp K-SA.

⁴⁾ Only in combination with one-sided shaft clamp K-ENSA.

Special actuators non fail-safe



Fast running rotary actuators

TMC..A..

LMC..A..

NMC..A..

SMC..A..

Very fast running rotary actuators

LMQ..A..

NMQ..A..

NMD..A..

SMQ..A..

SMD..A..

Very fast running linear actuators

LHQ..A..

SHQ..A..



Electrical accessories

Auxiliary
switches

S1A
S2AS1A
S2AS1A
S2AS1A
S2AS1A ¹⁾
S2A ¹⁾S1A ¹⁾
S2A ¹⁾S1A
S2AS1A ¹⁾
S2A ¹⁾S1A
S2A

Room temper-
ature controller
for modulating
actuators



CR24..

CR24..

CR24..

CR24..

CR24..

CR24..

CR24..

CR24..

CR24..

Feedback
potentiometer

P..A ²⁾P..A ²⁾P..A ²⁾P..A ²⁾P..A ^{1) 2)}P..A ^{1) 2)}P..A ^{1) 2)}P..A ^{1) 2)}P..A ²⁾

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
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24CRP24-B1
SBG24
SGA24
SGE24
SGF24

Tools

Service Tool

ZTH EU ³⁾ ZTH EU ³⁾

¹⁾ 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.

²⁾ Resistance values 140 Ω, 200 Ω, 500 Ω, 1 kΩ, 2.8 kΩ, 5 kΩ, 10 kΩ available.

³⁾ For all ..MP/..MOD actuators in the contracting and retrofit business.

Special actuators non fail-safe / fail-safe



**Very fast running
rotary actuators**

Fail-safe

NKQ..A..



**RobustLine rotary actuators
for extreme conditions**

Fail-safe

NKQ..P..



**IP66/67 / NEMA 4X rotary ac-
tuators 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-SA			
Ball joints		KG8 KG10A		KG10A	
Mounting kit for linkage operation		ZG-SMA		ZG-GMA	
Position indicator		Z-PI			
Adapter for auxiliary switches and feed-back potentiometer		Z-SPA			
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
NKQ..A..	NKQ..P..	SMQ..G..	PMCA.. / PKCA..
			

Electrical accessories

Heating with humidistat AC 230 V (only available fitted ex factory)				HH230-MG	
Heating with humidistat AC/DC 24 V (only available fitted ex factory)				HH24-MG	
Heating with thermostat AC 230 V (only available fitted ex factory)				HT230-MG	
Heating with thermostat AC/DC 24 V (only available fitted ex factory)				HT24-MG	
Auxiliary switches		S1A ¹⁾ S2A ¹⁾		S2A	
Room temperature controller for modulating actuators		CR24..	CR24..	CR24..	
Feedback potentiometers		P..A ^{1) 2)}		P..A GR ²⁾	
Signal converter Voltage/current For modulating actuators		Z-UIC	Z-UIC	Z-UIC	
Positioner/ Range controller For modulating actuators		CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	

Tools

Service Tool				ZTH EU ³⁾	ZTH EU ³⁾
Belimo Assistant App					■

¹⁾ Auxiliary switch and feedback potentiometer on NKQ..A actuators can only be used together with adapter Z-SPA.

²⁾ Resistance values 140 Ω, 200 Ω, 500 Ω, 1 kΩ, 2.8 kΩ, 5 kΩ, 10 kΩ available.

³⁾ For all ..24A-MP(..)-, ..24P-MP(..)- and ..24G-MP(..) actuators in the contracting and retrofit business.
For form fit inserts, please get in touch with your local Belimo contact person.

Very fast running rotary actuators, fail-safe

Nominal torque **6 Nm**
Damper size up to approx. 1.2 m²

Nominal voltage



NKQ..A..

Open/close	
AC/DC 24 V	NKQ24A-1
Modulating (2...10 V) ¹⁾	
AC/DC 24 V	NKQ24A-SR
Technical data	
Shaft diameter	8...26.7 mm
Sound power level	≤60 dB(A) @ 4 s
Motor	
Sound power level	≤60 dB(A) @ 4 s
Fail-safe position	
Running time motor 90°	4 s
Running time fail-safe 90°	4 s
Degree of protection	IP54
Manual override	Gear 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





¹⁾ 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.
Other versions on request.

Electrical installation

Electrical and mechanical accessories **Page 7-8**

Open/close	Modulating
NKQ24A-1	NKQ24A-SR

Fast running rotary actuators, non fail-safe

Nominal torque	2 Nm	5 Nm	10 Nm	20 Nm
Damper size up to approx.	0.4 m ²	1 m ²	2 m ²	4 m ²
Nominal voltage				
SPDT auxiliary switch				
				
	TMC..A	LMC..A	NMC..A	SMC..A
Open-close, 3-point				
AC/DC 24 V		TMC24A	LMC24A	
	1	TMC24A-S		
AC 230 V		TMC230A	LMC230A	
	1	TMC230A-S	LMC230A-S	
Modulating (2...10 V) ¹⁾				
AC/DC 24 V		TMC24A-SR	LMC24A-SR	
AC 230 V		TMC230ASR		
Communicative ²⁾ , parametrisable ³⁾				
AC/DC 24 V			NMC24A-MP	SMC24A-MP SMC24A-MOD ⁴⁾
Technical data				
Shaft diameter	6...20 mm	6...20 mm	8...26.7 mm	10...20 mm
Sound power level	≤40 dB(A) @ 35 s	≤45 dB(A) @ 35 s	≤45 dB(A) @ 35 s	≤55 dB(A) @ 35 s
Running time motor 90°	35 s			
Manual override	Gear 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			

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

²⁾ You can find suitable system diagrams at www.belimo.com.

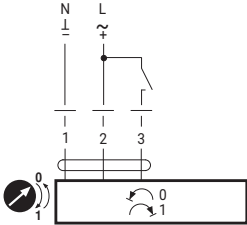
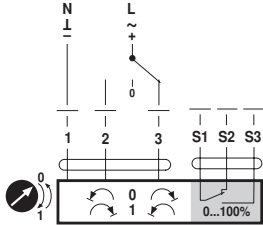
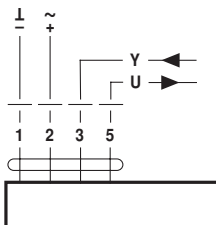
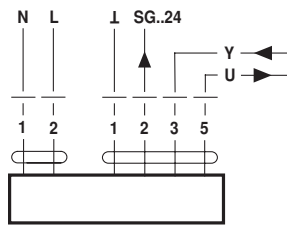
³⁾ Control, operating range, feedback, running time and other functions with MP types adjustable with PC-Tool or Service Tool ZTH EU.

⁴⁾ All MOD versions work with Modbus and BACnet.

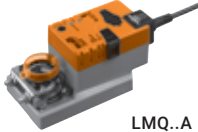




Other versions on request.

Electrical installation

Electrical and mechanical accessories **Page 5-6**

Open/close	3-point	Modulating	Parametrisable	Modulating
..MC24A, TMC24A-S, ..MC230A, TMC230A-S	..MC24A, TMC24A-S, ..MC230A, TMC230A-S	..MC24A-SR	..MC24A-MP	TMC230ASR
		Y = 0...10 V U = 2...10 V	Y = positioning signal U = position feedback	Y = 0...10 V U = 2...10 V
				

Very fast running rotary actuators, non fail-safe

Nominal torque	4 Nm	8 Nm	8 Nm	16 Nm	16 Nm
Damper size up to approx.	0.8 m ²	1.5 m ²	1.5 m ²	3.2 m ²	3.2 m ²
Nominal voltage					
					
	LMQ..A	NMQ..A	NMD..A	SMQ..A	SMD..A

Open/close

AC/DC 24 V	LMQ24A	NMQ24A	SMQ24A
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Open/close, 3-point

AC/DC 24 V			SMD24A
AC 230 V		NMD230A	SMD230A

Modulating (2...10 V) ¹⁾

AC/DC 24 V	LMQ24A-SR	NMQ24A-SR	SMQ24A-SR
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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) ²⁾	-30...40°C (40...50°C limited) ²⁾	-30...50°C	-30...40°C (40...50°C limited) ²⁾	30...50°C
Manual override	Gear 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				

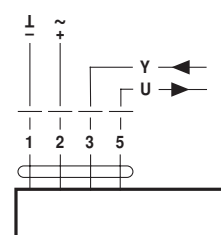
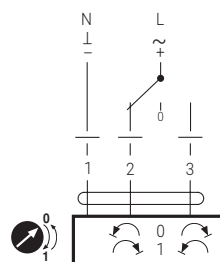
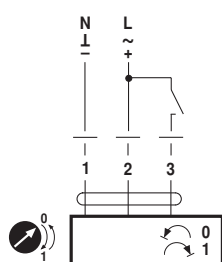
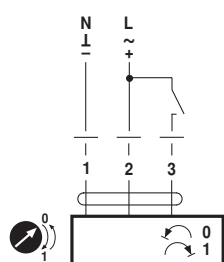
¹⁾ Modulating actuators: positioning signal Y = 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = 2...10 V, max. 0.5 mA for LMQ..A, NMQ..A, SMQ..A.

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

Electrical installation

Electrical and mechanical accessories **Page 5-6**

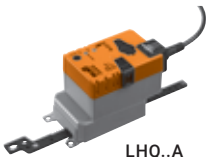
Open/close	3-point	Modulating
..MQ24A	NMD..A / SMD..A	..MQ24A-SR
		Y = 0...10 V U = 2...10 V



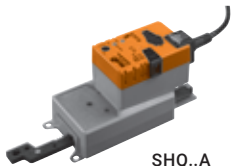
Very fast running linear actuators, non fail-safe

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

Nominal voltage



LHQ..A



SHQ..A

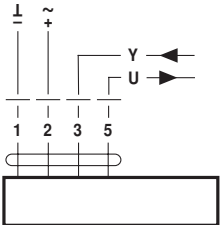
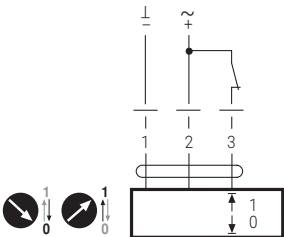
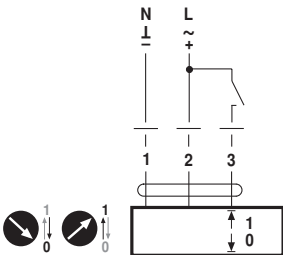
Open/close		
AC/DC 24 V	LHQ24A100	SHQ24A100
Modulating (2...10 V) ¹⁾		
AC/DC 24 V	LHQ24A-SR100	SHQ24A-SR100
Technical data		
Stroke range	0...100 mm	0...100 mm
Sound power level	≤56 dB(A) @ 3.5 s	≤56 dB(A) @ 7 s
Running time motor 100 mm	3.5 s	7 s
Manual override	Gear disengagement with push button,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

¹⁾ 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.
²⁾ Please get in touch with your local Belimo contact person.
Other versions on request.

Electrical installation

Electrical and mechanical accessories **Page 5-6**

Open/close	Modulating
..HQ24A100	..HQ24A-SR
Priority on 3	Y = 0...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 m²

Nominal voltage



Open/close	Without auxiliary switch
AC/DC 24 V	NKQ24P-1
Modulating (2...10 V) ¹⁾	
AC/DC 24 V	NKQ24P-SR
Technical data	
Shaft diameter	10...20 mm
Running time motor 90°	4 s
Running time fail-safe 90°	4 s
Manual override	Gear 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

¹⁾ 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 NKQ..P. Other versions on request.

Electrical installation

Open/close

NKQ24P-1

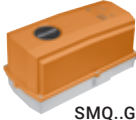
Modulating

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

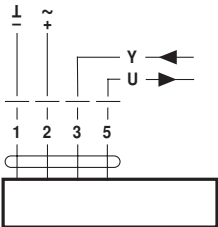
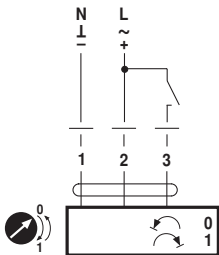
Nominal voltage	Running time motor 90°	
		 SMQ..G
Open/close Without auxiliary switch		
AC/DC 24 V	7 s	SMQ24G
Modulating (2...10 V) ¹⁾ Without auxiliary switch		
AC/DC 24 V	7 s	SMQ24G-SR
Technical data		
Shaft diameter	12...26.7 mm	
Manual override	Gear disengagement with push button, can be locked	
Motor sound power level	≤63 dB(A) @ 7 s	
Ambient temperature	-30...40°C ²⁾ (40...50°C limited) ³⁾	
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	

¹⁾ 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.
²⁾ Available with heating and thermostat/humidistat for ambient temperatures down to -40°C (see overview of accessories **Page 7-8**).
³⁾ Please contact your local Belimo representative.
Other versions on request.

Electrical installation

Electrical and mechanical accessories **Page 7-8**

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, parametrisable

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 variable)	35 s (30...120 s variable)	35 s (30...120 s variable)
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)
Parametrisation, commissioning, maintenance	Belimo Assistant App, ZTH EU		
Manual override	Hand crank		
Auxiliary switches	2 x SPDT		
Connection	Connecting terminals		
Direction of rotation	Selectable with Tool		
Position indication	Mechanical (integrated)		
Degree of protection	IP66/67 / NEMA 4X		
EMC	CE according to 2014/30/EU		
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 7-8**

Open/close

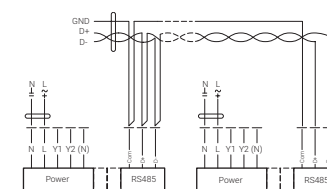
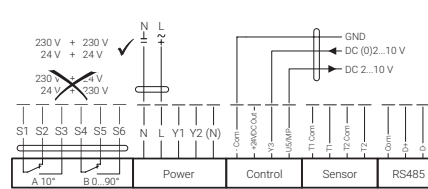
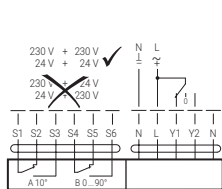
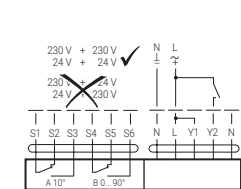
3-point

Modulating

Communicative (BACnet, Modbus)

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

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



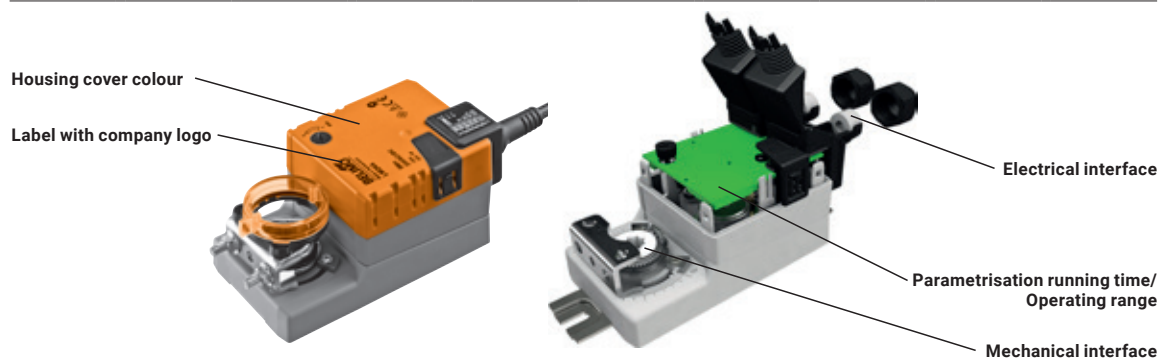
Subject to technical modifications

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.

Rotary actuators

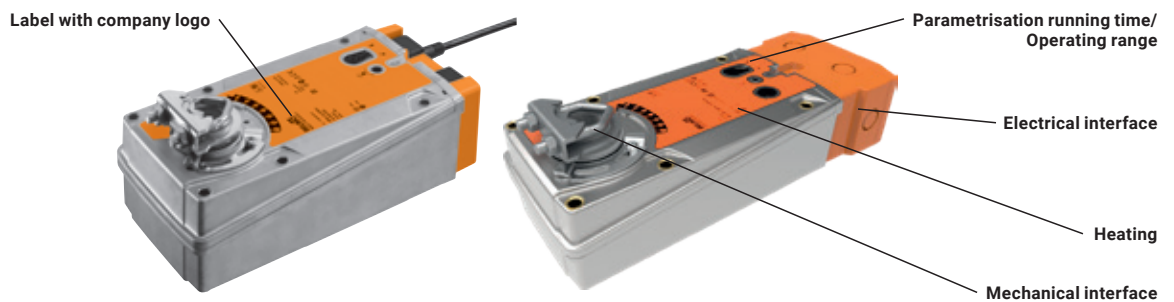
	CM..	LM..A..	NM..A..	SM..A..	GM..A..
Configuration					
Housing cover colour	orange grey	orange grey	orange grey	orange grey	orange grey
Label with company logo, colour	Label: transparent Font: black	Label: transparent Font: black white	Label: transparent Font: black white	Label: transparent Font: black white	Label: transparent Font: black white
Mechanical interface	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
Electrical interface	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
Parametrisation running time	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
Parametrisation operating range	2...10 V 0.5...10 V Adaption option	2...10 V 0.5...10 V Adaption option	2...10 V 0.5...10 V Adaption option	2...10 V 0.5...10 V Adaption option	2...10 V 0.5...10 V Adaption option
Packaging	Single pack Multipack 20 pieces	Single pack Multipack 20 pieces	Single pack Multipack 20 pieces	Single pack Multipack 20 pieces	Single pack Multipack 20 pieces
General	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

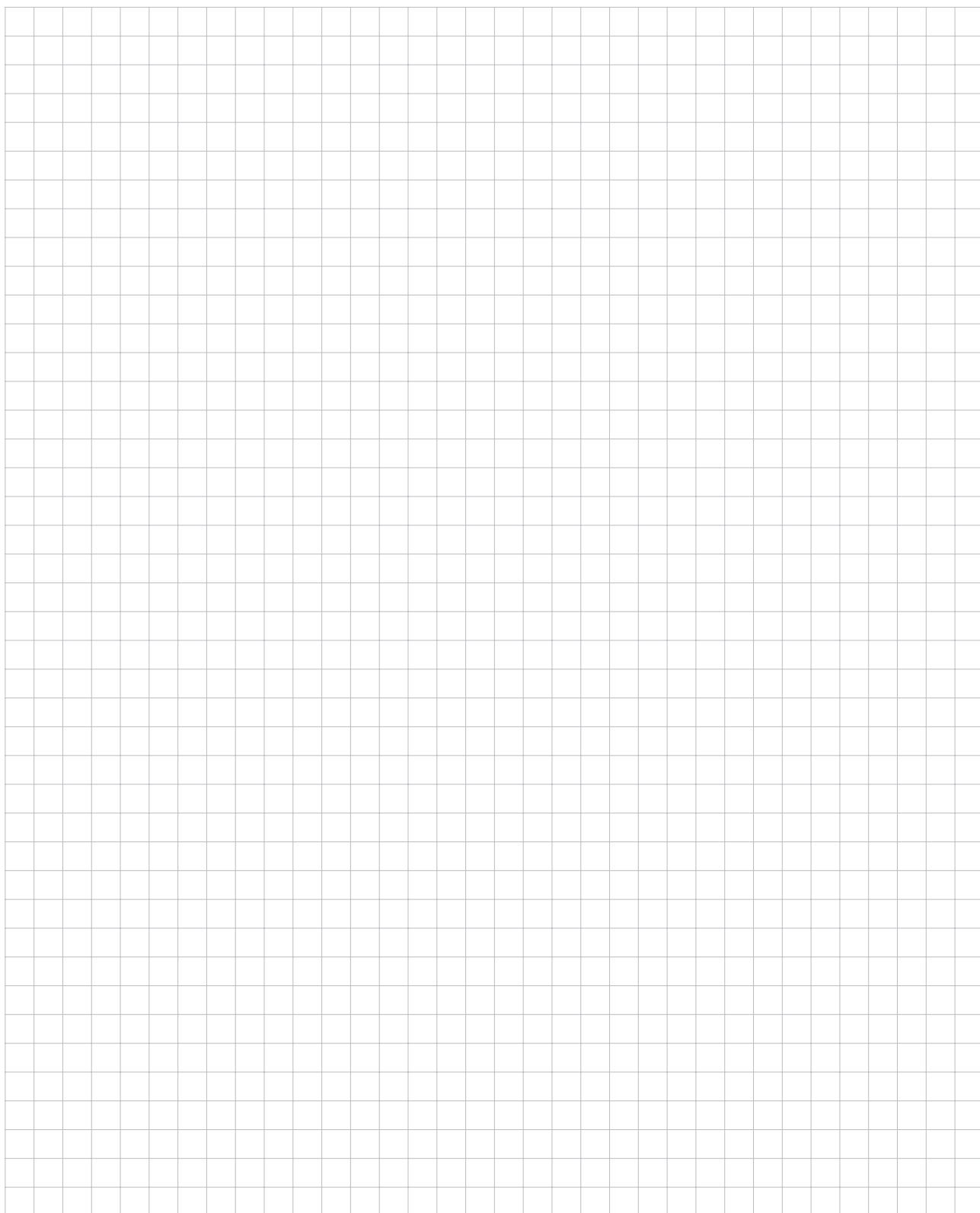
EF..A

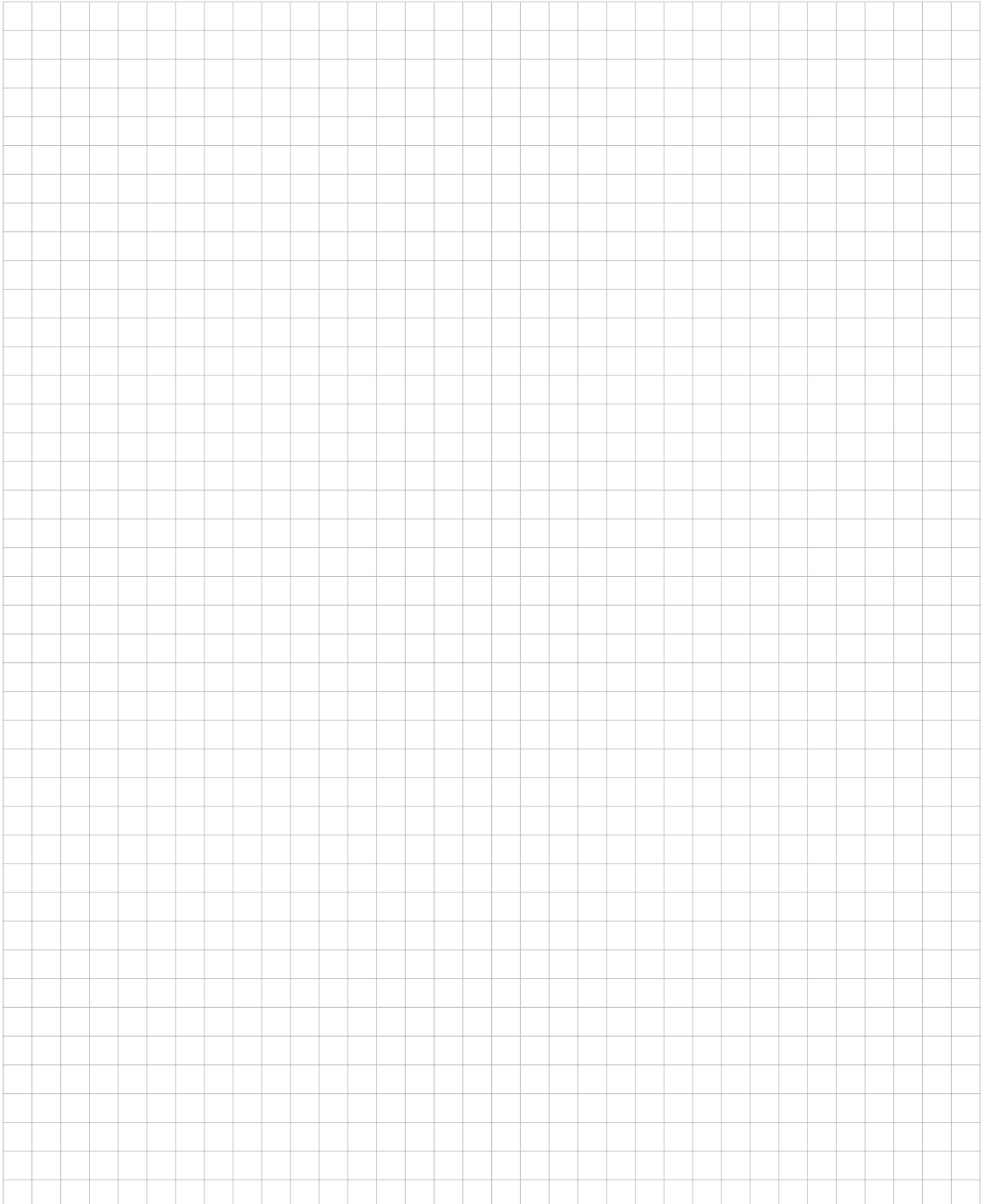


Numeration is not exhaustive.

	Rotary actuators, fail-safe		Very fast running rotary actuators		Linear actuators	
	NF..A../SF..A..	EF..A..	LMQ..A..	LH..A..		
Configuration						
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 blue black 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		
Parametrisation 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		
Parametrisation operating range	2...10 V 0.5...10 V Adaption option	2...10 V 0.5...10 V Adaption option	2...10 V 0.5...10 V Adaption option	2...10 V 0.5...10 V Adaption option		
Packaging	Single pack Multipack 20 pieces	Single pack Multipack 20 pieces	Single pack Multipack 20 pieces	Single pack Multipack 20 pieces		
Special		Heating				
General	Feasibility of the combinations on request Minimum order quantity with coloured label or customer logo: 20 pieces.					

Subject to technical modifications





All inclusive.

Belimo as a global market leader develops innovative solutions for the controlling of heating, ventilation and air-conditioning systems. Actuators, valves and sensors represent our core business.

Always focusing on customer added 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 world-wide 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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