






















		Nominal torque ¹⁾	Actuating force	Stroke range	Spindle diameter	For damper size up to approximately ¹⁾
Rotary actuators with connecting cable						
CM..		2 Nm			6...12.7 mm	■ 0.4 m²
LM..A..		5 Nm			6...20 mm	■ 1 m²
NM..A..		10 Nm			8...26.7 mm	■ 2 m²
SM..A..		20 Nm			10...20 mm	■ 4 m²
GM..A..		40 Nm			12...26.7 mm	■ 8 m²
Rotary actuators with connecting terminals						
CM..		2 Nm			6...12.7 mm	■ 0.4 m²
LM..A..		5 Nm			6...20 mm	■ 1 m²
NM..A..		10 Nm			8...26.7 mm	■ 2 m²
SM..A..		20 Nm			10...20 mm	■ 4 m²
GM..A..		40 Nm			12...26.7 mm	■ 8 m²
Linear actuators with connecting cable						
CH..			125 N	0...100 mm		■ 0.8 m²
LH..A..			150 N	0...300 mm		■ 1 m²
SH..A..			450 N	0...300 mm		■ 3 m²

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.













		Emergency control function	Nominal torque ¹⁾	Actuating force	Stroke range	Spindle diameter	For damper size up to approximately ¹⁾
Rotary actuators with mechanical emergency control function (Spring assembly)							
TF..			2.5 Nm			6...12 mm	■ 0.5 m²
LF..			4 Nm			8...16 mm	■ 0.8 m²
NF..A..			10 Nm			10...25.4 mm	■ 2 m²
SF..A..			20 Nm			10...25.4 mm	■ 4 m²
EF..A..			30 Nm			12...26.7 mm	■ 6 m²
Rotary actuators with electrical emergency control function (SuperCap)							
SKM230.. + CM24K..		— —	2 Nm			6...12.7 mm	■ 0.4 m²
NKQ..A..		— —	6 Nm			8...26.7 mm	■ 1.2 m²
GK..A..		— —	40 Nm			12...26.7 mm	■ 8 m²
Linear actuators with electrical emergency control function (SuperCap)							
LHK..A..		— —		150 N	0...100 mm		■ 1 m²
SHK..A..		— —		450 N	0...100 mm		■ 3 m²

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.

		Emergency control function	Nominal torque ¹⁾	Actuating force	Stroke range	Spindle diameter	For damper size up to approximately ¹⁾
Fast running rotary actuators without emergency control function							
TMC..A..			2 Nm			6...20 mm	■ 0.4 m²
LMC..A..			5 Nm			6...20 mm	■ 1 m²
NMC..A..			10 Nm			8...26.7 mm	■ 2 m²
SMC..A..			20 Nm			10...20 mm	■ 4 m²
Very fast running rotary actuators without emergency control function							
LMQ..A..			4 Nm			8...26.7 mm	■ 0.8 m²
NMQ..A..			8 Nm			8...26.7 mm	■ 1.5 m²
NMD..A..			8 Nm			10...20 mm	■ 1.5 m²
SMQ..A..			16 Nm			12...26.7 mm	■ 3.2 m²
SMD..A..			16 Nm			10...20 mm	■ 3.2 m²
Very fast running linear actuators without emergency control function							
LHQ..A..				100 N	0...100 mm		■ 0.7 m²
SHQ..A..				200 N	0...100 mm		■ 1.3 m²
RobustLine rotary actuators for extreme conditions, without / with emergency control function							
NM..P..			10 Nm			10...20 mm	■ 2 m²
SM..P..			20 Nm			14...20 mm	■ 4 m²
NKQ..P..		— —	6 Nm			10...20 mm	■ 1.2 m²
IP66/NEMA4 rotary actuators for outdoor applications, without / with emergency control function							
SMQ..G..			16 Nm			12...26.7 mm	■ 3.2 m²
GM..G..			40 Nm			14...26.7 mm	■ 8 m²
NF..G..		⊙	10 Nm			12...26.7 mm	■ 2 m²
SF..G..		⊙	20 Nm			12...26.7 mm	■ 4 m²
GK..G..		— —	40 Nm			14...26.7 mm	■ 8 m²

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.

		Emergency control function	Nominal torque ¹⁾	Form fit	Damper size
Rotary actuators with high torque					
PMCA..			160 Nm	17x17 mm	Special
PKCA..		— —	160 Nm	17x17 mm	Special
Actuators with damper blade					
CM..D		2 Nm		100...160 mm	DN 100...DN 160
Parameterisable rotary actuators with connecting terminals					
LM..A..		5 Nm		6...20 mm	Modulating 2...10 V ²⁾ ■ 1 m²
NM..A..		10 Nm		8...26.7 mm	Modulating 2...10 V ²⁾ ■ 2 m²
SM..A..		20 Nm		10...20 mm	Modulating 2...10 V ²⁾ ■ 4 m²
GM..A..		40 Nm		12...26.7 mm	Modulating 2...10 V ²⁾ ■ 8 m²
Parameterisable rotary actuators with special control and connecting cable					
SM24A-MA		20 Nm		10...20 mm	Modulating 4...20 mA ³⁾ ■ 4 m²
SM24A-PC		20 Nm		10...20 mm	Modulating 0...20 V Phs ³⁾ ■ 4 m²
SM24A-R9		20 Nm		10...20 mm	Modulating 0...135 Ω ³⁾ ■ 4 m²
Parameterisable linear actuators with connecting terminals					
LH..A..		150 N	0...300 mm		Modulating 2...10 V ²⁾ ■ 1 m²

Configuration options






























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.

²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.

³⁾ Running time and further functions adjustable with PC-Tool or the parameterising device ZTH EU.



		Rotary actuators					Linear actuators		
		CM..	LM..A..	NM..A..	SM..A..	GM..A..	CH..	LH..A..	SH..A..
									
Mechanical Accessories									
Shaft extension		AV6-20	AV6-20	AV8-25	AV8-25 AV12-25-I				
End stop kit, rotary support, coupling piece							Z-AS2 Z-DS1 Z-KS2	Z-AS2 Z-DS1 Z-KS2	Z-AS1 Z-DS1 Z-KS1
Baseplate extension				Z-NMA	Z-SMA	Z-GMA			
Angle of rotation limiter									
End stop clips		Z-ESCM					Z-ESCM		
Form fit inserts ¹⁾			ZF..-LMA ZFRL..-LMA	ZF..-NSA ZF8-NMA	ZF..-NSA				
Gear disengagement magnet		Z-MA					Z-MA		
Crank arm for actuator spindles				AH-20 ²⁾ AH-25	AH-20 AH-25 ³⁾	AH-GMA			
Crank arm for damper spindles				KH8	KH8	KH10			
Spindle clamp, one-sided			K-ELA..	K-ENMA K-ENSA	K-ENSA K-ENSA-I				
Spindle clamp reversible				K-NA	K-SA				
Ball joints				KG8 KG10A	KG8 KG10A	KG10A			
Installation kits for linkage operation				ZG-NMA	ZG-SMA	ZG-GMA			
Position indicator		Z-PICM	Z-PI	Z-PI	Z-PI	Z-PI			
Anti-rotation clip		Z-ARCM							
Electrical accessories									
Auxiliary Switch			S1A S2A	S1A S2A	S1A S2A	S1A S2A			
Room temperature controller for modulating actuators		CR24..	CR24..	CR24..	CR24..	CR24..	CR24..	CR24..	CR24..
Feedback potentiometer			P..A ⁴⁾	P..A ⁴⁾	P..A ⁴⁾	P..A ⁴⁾			
Signal converter voltage/current for modulating actuators		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 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24
Parameterising devices									
Adjustment and diagnostic device			ZTH EU ⁵⁾	ZTH EU ⁵⁾	ZTH EU ⁵⁾	ZTH EU ⁵⁾		ZTH EU ⁵⁾	ZTH EU ⁵⁾

¹⁾ Form fit inserts: LM..A..: 8x8 mm, 10x10 mm, 12x12 mm; NM..A..: 8x8 mm (ZF8-NMA); NM..A../SM..A..: 10x10 mm, 12x12 mm, 15x15 mm, 16x16 mm.













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

³⁾ Only in combination with one-sided spindle clamp K-ENSA.

⁴⁾ Resistance values 140 Ω, 200 Ω, 500 Ω, 1 kΩ, 2.8 kΩ, 5 kΩ, 10 kΩ available.

⁵⁾ For all ..MP../..MAV../..PC../..R9 actuators in the contracting and retrofit business.



		Rotary actuators with mechanical emergency control function (Spring assembly)					Rotary actuators with electrical emergency control function (SuperCap)			Linear actuators with electrical emergency control function (SuperCap)	
		TF..	LF..	NF..A..	SF..A..	EF..A..	SKM230.. + CM24K..	NKQ..A..	GK..A..	LHK..A..	SHK..A..
											
Mechanical Accessories											
Shaft extension		AV6-20	AV6-20	AV8-25	AV8-25		AV6-20	AV8-25			
Adapter for auxiliary switch and feedback potentiometer								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-SF	Z-SF				Z-GMA		
Angle of rotation limiter		ZDB-TF	ZDB-LF								
End stop clips							Z-ESCM				
Form fit inserts ¹⁾		ZF8-TF	ZF8-LF	ZF..-NSA-F	ZF..-NSA-F						
Gear disengagement magnet							Z-MA				
Crank arm for actuator spindles		AH-TF	KH-LF	KH-AFB	KH-AFB			AH-25	AH-GMA		
Crank arm for damper spindles		KH8	KH8	KH8	KH8	KH10 KH-EFB		KH8	KH10		
Spindle clamp reversible			K6-1	K7-2 K7-3	K7-2 K7-3	K9-2		K-SA			
Ball joints		KG8 KG10A	KG8 KG10A	KG8 KG10A	KG8 KG10A			KG8 KG10A	KG10A		
Installation kits for linkage operation		ZG-TF1	ZG-LF1 ZG-LF3	ZG-AFB	ZG-AFB	ZG-EFB		ZG-SMA	ZG-GMA		
Screw fastening kit		SB-TF									
Position indicator				IND-AFB	IND-AFB	IND-EFB	Z-PICM	Z-PI	Z-PI		
Anti-rotation clip							Z-ARCM				
Electrical accessories											
Auxiliary Switch			S2A-F ²⁾	S2A-F ²⁾	S2A-F ²⁾			S1A ³⁾ S2A ³⁾	S1A ⁴⁾ S2A ⁴⁾		
Room temperature controller for modulating actuators		CR24..	CR24..	CR24..	CR24..	CR24..		CR24..	CR24..	CR24..	CR24..
Feedback potentiometer			P200A-F ²⁾ P1000A-F	P200A-F ²⁾ P1000A-F	P200A-F ²⁾ P1000A-F			P..A ^{3) 5)}	P..A ^{4) 5)}		
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 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24		CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24
Parameterising devices											
Adjustment and diagnostic device				ZTH EU ⁶⁾	ZTH EU ⁶⁾	ZTH EU ⁶⁾			ZTH EU ⁶⁾	ZTH EU ⁶⁾	ZTH EU ⁶⁾

¹⁾ Form fit inserts: TF../LF..: 8x8 mm; NF../SF..: 10x10 mm, 12x12 mm, 15x15 mm, 16x16 mm.

²⁾ For more versions for LF..-, NF..A and SF..A actuators please get in touch with your local Belimo contact person.

³⁾ Auxiliary switch and feedback potentiometer on NKQ..A actuators can only ever be used together with adapter Z-SPA.

⁴⁾ Auxiliary switch and feedback potentiometer on GK..A actuators in combination with a reversible clamp (mounted below for short-axis assembly) can only ever be used together with adapter Z-SPA.

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

⁶⁾ For all ..MP.. actuators in the contracting and retrofit business.



		Fast running rotary actuators				Very fast running rotary actuators					Very fast running linear actuators	
		TMC..A..	LMC..A..	NMC..A..	SMC..A..	LMQ..A..	NMQ..A..	NMD..A..	SMQ..A..	SMD..A..	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 switch 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		
Crank arm for actuator spindles				AH-20 ²⁾ AH-25	AH-20 ²⁾ AH-25 ⁴⁾	AH-20 ²⁾ AH-25	AH-20 ³⁾ AH-25	AH-20	AH-GMA	AH-20 AH-25 ⁴⁾		
Crank arm for damper spindles				KH8	KH8	KH8	KH8	KH8	KH10	KH8		
Spindle clamp, 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		
Spindle 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		
Installation kits 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		
Electrical accessories												
Auxiliary Switch		S1A S2A	S1A S2A	S1A S2A	S1A S2A	S1A ⁵⁾ S2A ⁵⁾	S1A ⁵⁾ S2A ⁵⁾	S1A S2A	S1A ⁵⁾ S2A ⁵⁾	S1A S2A		
Room temperature controller for modulating actuators		CR24..	CR24..	CR24..	CR24..	CR24..	CR24..		CR24..		CR24..	CR24..
Feedback potentiometer		P..A ⁶⁾	P..A ⁶⁾	P..A ⁶⁾	P..A ⁶⁾	P..A ^{5) 6)}	P..A ^{5) 6)}	P..A ^{5) 6)}	P..A ^{5) 6)}	P..A ⁶⁾		
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 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24		CRP24-B1 SBG24 SGA24 SGE24 SGF24		CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24
Parameterising devices												
Adjustment and diagnostic device				ZTH EU ⁷⁾	ZTH EU ⁷⁾							

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 spindle clamp K-NA.

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

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

⁵⁾ Auxiliary switch and feedback potentiometer on LMQ..A, NMQ..A and SMQ..A actuators in combination with a reversible clamp (mounted below for short-axis installation) can only ever be used together with adapter Z-SPA.

⁶⁾ Resistance values 140 Ω, 200 Ω, 500 Ω, 1 kΩ, 2.8 kΩ, 5 kΩ, 10 kΩ available.

⁷⁾ For all ...MP../...MA../...PC../...R9 actuators in the contracting and retrofit business.




		RobustLine rotary actuators for extreme conditions			IP66 / NEMA4 – Rotary actuators for outdoor applications					Actuators with high torque	Actuators with damper blade
		without emergency control function		with emergency control function	without emergency control function		with emergency control function				
		NM..P..	SM..P..	NKQ..P..	SMQ..G..	GM..G..	NF..G..	SF..G..	GK..G..	PMCA.. PKCA..	CM..D
Mechanical Accessories											
Crank arm for actuator spindles					AH-GMA	AH-GMA	AH-GMA	AH-GMA	AH-GMA		
Crank arm for damper spindles					KH10	KH10	KH10	KH10	KH10		
Ball joints					KG10A	KG10A	KG10A	KG10A	KG10A		
Installation kits for linkage operation					ZG-GMA	ZG-GMA	ZG-GMA	ZG-GMA	ZG-GMA		
Adapter kit										ZPR..	
Electrical accessories											
Heating with humidistat AC 230 V (only available fitted ex factory)		HH230	HH230		HH230- MG	HH230- MG	HH230-FG	HH230-FG	HH230- MG		
Heating with humidistat AC/DC 24 V (only available fitted ex factory)					HH24-MG	HH24-MG	HH24-FG	HH24-FG	HH24-MG		
Heating with thermostat AC 230 V (only available fitted ex factory)		HT230	HT230		HT230-MG	HT230-MG	HT230-FG	HT230-FG	HT230-MG		
Heating with thermostat AC/DC 24 V (only available fitted ex factory)					HT24-MG	HT24-MG	HT24-FG	HT24-FG	HT24-MG		
Auxiliary Switch		S2A GR	S2A GR		S2A	S2A	(S2A-F GR) ¹⁾	(S2A-F GR) ¹⁾	(S2A) ¹⁾		
Room temperature controller for modulating actuators		CR24..	CR24..	CR24..	CR24..	CR24..	CR24..	CR24..	CR24..		CR24..
Feedback potentiometer		P..A GR ²⁾	P..A GR ²⁾		P..A ²⁾	P..A ²⁾	P..A ^{1) 2)}	P..A ^{1) 2)}	P..A ^{1) 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 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24	CRP24-B1 SBG24 SGA24 SGE24 SGF24		CRP24-B1 SBG24 SGA24 SGE24 SGF24
Parameterising devices											
Adjustment and diagnostic device		ZTH EU ³⁾	ZTH EU ³⁾		ZTH EU ³⁾	ZTH EU ³⁾	ZTH EU ³⁾	ZTH EU ³⁾	ZTH EU ³⁾	ZTH EU ³⁾	
Belimo Assistant App										●	









¹⁾ Combination only on request. Please get in touch with your local Belimo contact person.





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.

Nominal voltage AC/DC 24 V AC 230 V	Direction of rotation	Angle of rotation	Degree of protection	Nominal torque	2 Nm
				Damper size up to approx.	0.4 m ²
					
				CM..	

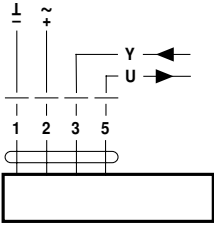
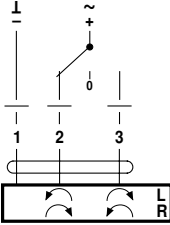
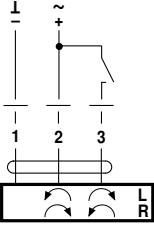
Open-close, 3-point					
24 V	 counterclockwise rotation	0...287.5° / without limits	IP 54	CM24-L	
	 clockwise rotation			CM24-R	
	 counterclockwise rotation		IP 66	CM24G-L	
	 clockwise rotation			CM24G-R	
230 V	 counterclockwise rotation	0...287.5° / without limits	IP 54	CM230-L	
	 clockwise rotation			CM230-R	
	 counterclockwise rotation		IP 66	CM230G-L	
	 clockwise rotation			CM230G-R	




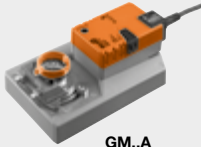
Modulating (2...10 V) ^{1), 2)}					
24 V	 counterclockwise rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	IP 54	CM24-SR-L	
	 clockwise rotation			CM24-SR-R	
	 counterclockwise rotation		IP 66	CM24G-SR-L	
	 clockwise rotation			CM24G-SR-R	

Modulating (2...10 V) with adaption ^{1), 2)}					
24 V	 counterclockwise rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	IP 54	CM24-SX-L	
	 clockwise rotation			CM24-SX-R	

Technical Data	
Spindle diameter	6...12.7 mm
Running time motor 90°	75 s
Manual override	Gear disengagement with magnet
Connection	Connecting cable 1 m
Position indicator	Mechanical, add-on
Sound power level	≤35 dB(A) @ 75 s
EMC	CE according to 2014/30/EU
Ambient temperature	-30...50 °C
Non-operating temperature	-40...80 °C
Ambient humidity range	95% r.h., non-condensing

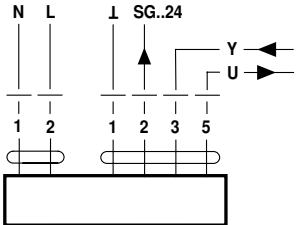
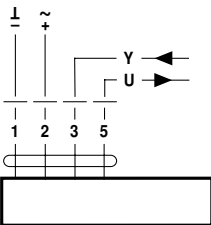
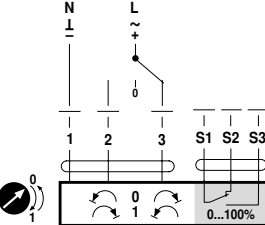
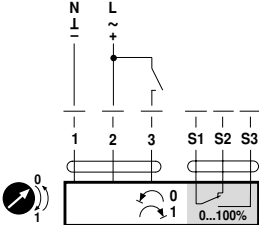
¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA.
²⁾ Direction of rotation: Type ...L: Positioning signal Y = 0 V left end stop / Direction of rotation: Type ...R: Positioning signal Y = 0 V right end stop
Other versions on request.

Open-close	3-point	Modulating
CM24..., CM230...	CM24..., CM230...	CM24...-SR..., CM24...-SX...
<div><div>Y = DC 0...10 V U = DC 2...10 V</div></div>		

Nominal torque		5 Nm	10 Nm	20 Nm	40 Nm
Damper size up to approx.		1 m ²	2 m ²	4 m ²	8 m ²
Nominal voltage AC/DC 24 V AC 230 V	Auxiliary switch SPDT				
		LM..A	NM..A	SM..A	GM..A
Open-close, 3-point					Open-close
24 V		LM24A	NM24A	SM24A	GM24A
	1	LM24A-S	NM24A-S	SM24A-S	
230 V		LM230A	NM230A	SM230A	GM230A
	1	LM230A-S	NM230A-S	SM230A-S	
Modulating (2...10 V) ¹⁾					
24 V		LM24A-SR	NM24A-SR	SM24A-SR	GM24A-SR
230 V		LM230ASR	NM230ASR	SM230ASR	
Parameterisable ²⁾					
24 V		LM24A-MP	NM24A-MP	SM24A-MP	GM24A-MP

Technical Data				
Spindle diameter	6...20 mm	8...26.7 mm	10...20 mm	12...26.7 mm
Running time motor 90°	150 s	150 s	150 s	150 s
Manual override	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked
Connection	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m
Direction of rotation	Can be selected with switch	Can be selected with switch	Can be selected with switch	Can be selected with switch
Angle of rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Sound power level	≤35 dB(A) @ 150 s	≤35 dB(A) @ 150 s	≤45 dB(A) @ 150 s	≤45 dB(A) @ 150 s
Degree of protection	IP 54	IP 54	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	-30...50 °C	-30...50 °C	-30...50 °C	-30...50 °C
Non-operating temperature	-40...80 °C	-40...80 °C	-40...80 °C	-40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

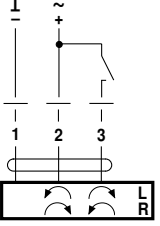
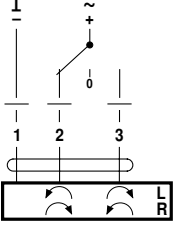
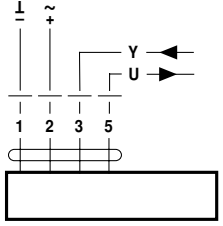
¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA.
²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.
Other versions on request.




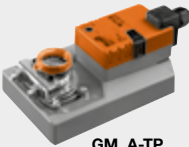
Open-close	3-point	Modulating	Parameterisable	Modulating
..M24A, ..M24A-S, ..M230A, ..M230A-S	..M24A, ..M24A-S, ..M230A, ..M230A-S	..M24A-SR	..M24A-MP	..M230ASR
<div><div>(for GM..A not permissible)</div><div>Y = DC 0...10 V U = DC 2...10 V</div><div>Y = positioning signal U = position feedback</div><div>Y = DC 0...10 V U = DC 2...10 V</div></div>				

Nominal voltage AC/DC 24 V	Direction of rotation	Angle of rotation	Degree of protection	Nominal torque	2 Nm
				Damper size up to approx.	0.4 m ²
				 CM...-T..	
Open-close, 3-point					
24 V	↺ counterclockwise rotation	0...287.5° / endlos	IP 20	CM24-T-L	
	↻ clockwise rotation			CM24-T-R	
Modulating (2...10 V) ^{1), 2)}					
24 V	↺ counterclockwise rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	IP 20	CM24-SR-T-L	
	↻ clockwise rotation			CM24-SR-T-R	
Modulating (2...10 V) with adaption ^{1), 2)}					
24 V	↺ counterclockwise rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	IP 20	CM24-SX-T-L	
	↻ clockwise rotation			CM24-SX-T-R	

Technical Data	
Spindle diameter	6...12.7 mm
Running time motor 90°	75 s
Manual override	Gear disengagement with magnet
Connection	Connecting terminals
Position indicator	Mechanical, add-on
Sound power level	≤35 dB(A) @ 75 s
EMC	CE according to 2014/30/EU
Ambient temperature	−30...50 °C
Non-operating temperature	−40...80 °C
Ambient humidity range	95% r.h., non-condensing

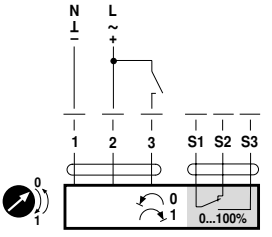
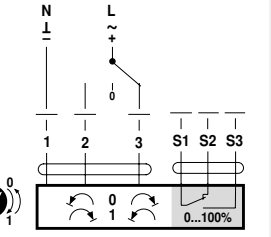
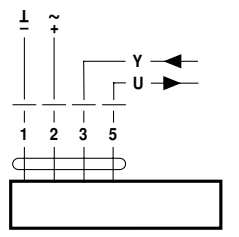
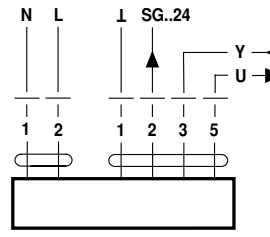
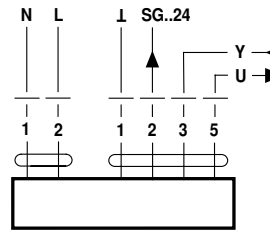
¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA.
²⁾ Direction of rotation: Type ..-L: Positioning signal Y = 0 V left end stop / Direction of rotation: Type ..-R: Positioning signal Y = 0 V right end stop
Other versions on request.

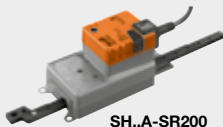
Open-close	3-point	Modulating
CM24..	CM24..	CM24..-SR..., CM24..-SX ..
Y = DC 0...10 V U = DC 2...10 V		
		

Nominal torque Damper size up to approx.	Nominal voltage AC/DC 24 V AC 230 V	Auxiliary switch SPDT	5 Nm	10 Nm	20 Nm	40 Nm
			1 m ²	2 m ²	4 m ²	8 m ²
						
LM..A-TP			NM..A-TP	SM..A-TP	GM..A-TP	
Open-close, 3-point				Open-close		
24 V	1	LM24A-TP	NM24A-TP	SM24A-TP	GM24A-TP	
		LM24A-S-TP	NM24A-S-TP	SM24A-S-TP	GM230A-TP	
230 V	1	LM230A-TP	NM230A-TP	SM230A-TP		
		LM230A-S-TP	NM230A-S-TP	SM230A-S-TP		
Modulating (2...10 V) ¹⁾						
24 V		LM24A-SR-TP	NM24A-SR-TP	SM24A-SR-TP	GM24A-SR-TP	
230 V		LM230ASR-TP	NM230ASR-TP	SM230ASR-TP		
Parameterisable ²⁾						
24 V		LM24A-MP-TP	NM24A-MP-TP	SM24A-MP-TP	GM24A-MP-TP	

Technical Data				
Spindle diameter	6...20 mm	8...26.7 mm	10...20 mm	12...26.7 mm
Running time motor 90°	150 s	150 s	150 s	150 s
Manual override	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked
Connection	Connecting terminals	Connecting terminals	Connecting terminals	Connecting terminals
Direction of rotation	Can be selected with switch	Can be selected with switch	Can be selected with switch	Can be selected with switch
Angle of rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Sound power level	≤35 dB(A) @ 150 s	≤35 dB(A) @ 150 s	≤45 dB(A) @ 150 s	≤45 dB(A) @ 150 s
Degree of protection	IP 54	IP 54	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	−30...50 °C	−30...50 °C	−30...50 °C	−30...50 °C
Non-operating temperature	−40...80 °C	−40...80 °C	−40...80 °C	−40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA.
²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.
Other versions on request.

Open-close	3-point	Modulating	Parameterisable	Modulating
..M24A-TP, ..M24A-S-TP, ..M230A-TP, ..M230A-S-TP	..M24A-TP, ..M24A-S-TP, ..M230A-TP, ..M230A-S-TP	..M24A-SR-TP	..M24A-MP-TP	..M230ASR-TP
(for GM..A.. not permissible)		Y = DC 0...10 V U = DC 2...10 V	Y = positioning signal U = position feedback	Y = DC 0...10 V U = DC 2...10 V
				

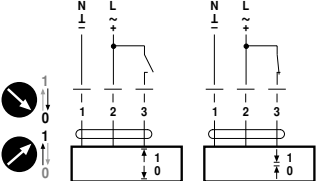
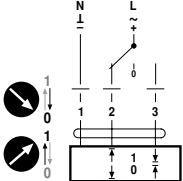
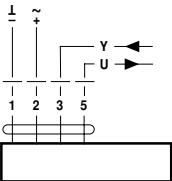
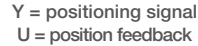
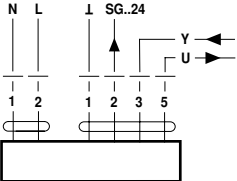
Actuating force		125 N	150 N	450 N
Damper size up to approx.		0.8 m ²	1 m ²	3 m ²
Stroke (gear rod)	Nominal voltage AC/DC 24 V AC 230 V			
		CH..L100	LH..A60	SH..A-SR200
Open/close, 3-point				
60 mm	24 V	CH24-L60.2	LH24A60	
100 mm		CH24-L100.2	LH24A100	SH24A100
200 mm			LH24A200	SH24A200
300 mm			LH24A300	SH24A300
60 mm	230 V	CH230-L60.2	LH230A60	
100 mm		CH230-L100.2	LH230A100	SH230A100
200 mm			LH230A200	SH230A200
300 mm			LH230A300	SH230A300
Modulating (2...10 V) ¹⁾		Direction of stroke 0 ²⁾	Direction of stroke 1 ²⁾	
60 mm	24 V	CH24-SR-L60.2	CH24-SR-R60.2	
100 mm		CH24-SR-L100.2	CH24-SR-R100.2	LH24A-SR100
200 mm				LH24A-SR200
100 mm	230 V			LH230ASR100
200 mm				LH230ASR200
Modulating (2...10 V) with adaption ¹⁾		Direction of stroke 0 ²⁾	Direction of stroke 1 ²⁾	
40 mm	24 V	CH24-SX-L40.2	CH24-SX-R40.2	
100 mm		CH24-SX-L100.2	CH24-SX-R100.2	
Parameterisable ³⁾			Connecting cable	Connecting terminals
60 mm	24 V		LH24A-MP60	LH24A-MP60-TP
100 mm			LH24A-MP100	LH24A-MP100-TP
200 mm			LH24A-MP200	LH24A-MP200-TP
300 mm			LH24A-MP300	LH24A-MP300-TP


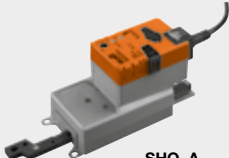
Technical Data

Running time motor 100 mm	380 s	150 s	150 s
Manual override	Gear disengagement with magnet	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked
Connection	Connecting cable 1 m	Connecting cable 1 m / connecting terminals	Connecting cable 1 m
Direction of stroke	Can be selected via contact	Can be selected with switch	Can be selected with switch
Height of stroke	Adjustable in 20 mm increments	Adjustable in 20 mm increments	Adjustable in 20 mm increments
Sound power level	≤35 dB(A) @ 380 s	≤45 dB(A) @ 150 s	≤52 dB(A) @ 150 s
Degree of protection	IP 54	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	-30...50 °C	-30...50 °C	-30...50 °C
Non-operating temperature	-40...80 °C	-40...80 °C	-40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA.
²⁾ Direction of stroke 0: when Y = 0 V, gear rod is drawn in / direction of stroke 1: when Y = 0 V, gear rod is extended.
³⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.

Electrical installation

Open-close	3-point	Modulating	Parameterisable	Modulating
..H24A.., ..H230A..	..H24A.., ..H230A..	CH24-S.., ..H24A-SR..	..H24A-MP..	..H230ASR..
Priority on 3				
				

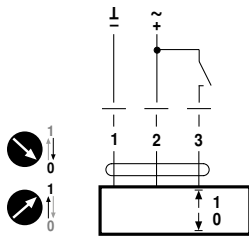

Nominal voltage AC/DC 24 V	Actuating force	100 N	200 N
	Damper size up to approx.	0.7 m ²	1.3 m ²
			
		LHQ..A	SHQ..A
	Open-close		
	24 V	LHQ24A100	SHQ24A100
Modulating (2...10 V) ¹⁾			
24 V	LHQ24A-SR100	SHQ24A-SR100	






Technical Data

Stroke range	0...100 mm	0...100 mm
Running time motor 100 mm	3.5 s	7 s
Manual override	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked
Connection	Connecting cable 1 m	Connecting cable 1 m
Direction of stroke	Can be selected with switch	Can be selected with switch
Height of stroke	20 – 100 mm, adjustable in 20 mm increments	20 – 100 mm, adjustable in 20 mm increments
Sound power level	≤56 dB(A) @ 3.5 s	≤56 dB(A) @ 7 s
Degree of protection	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	-30...40 °C (40...50 °C limited) ²⁾	-30...40 °C (40...50 °C limited) ²⁾
Non-operating temperature	-40...80 °C	-40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing

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

Electrical installation

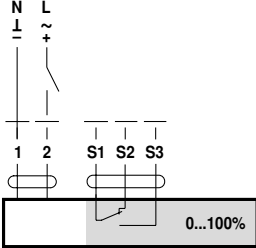
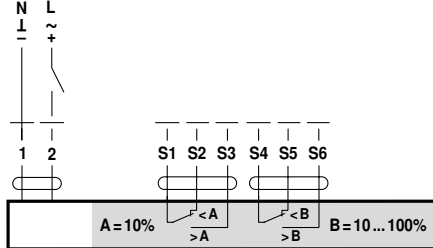
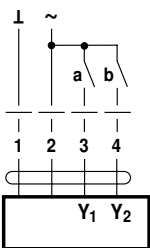
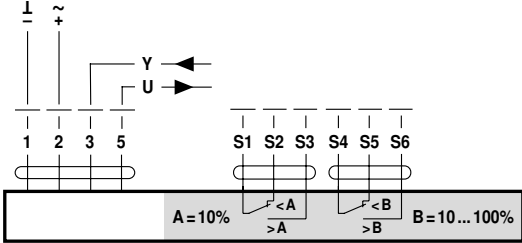
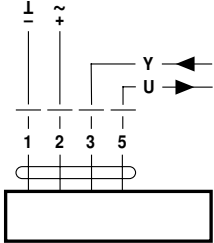
Open-close	Modulating
..HQ24A100	..HQ24A-SR
Priority on 3	
	

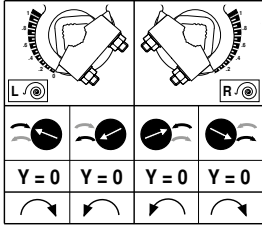
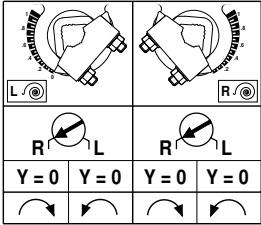
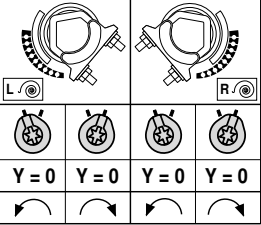
Nominal torque		2.5 Nm	4 Nm	10 Nm	20 Nm	30 Nm						
Damper size up to approx.		0.5 m²	0.8 m²	2 m²	4 m²	6 m²						
Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°											
		TF..		LF..		NF..A..		SF..A..		EF..A..		
Open-close												
			without auxiliary switch	with 1 auxiliary switch SPDT	without auxiliary switch	with 1 auxiliary switch SPDT	without auxiliary switch	with 2 auxiliary switches SPDT	without auxiliary switch	with 2 auxiliary switches SPDT	without auxiliary switch	with 2 auxiliary switches SPDT
24 V	40...75 s			LF24	LF24-S							
	75 s	TF24	TF24-S			NF24A	NF24A-S2	SF24A	SF24A-S2	EF24A	EF24A-S2	
230 V	40...75 s			LF230	LF230-S							
	75 s	TF230	TF230-S							EF230A	EF230A-S2	
AC 24...240 V DC 24...125 V	75 s					NFA	NFA-S2	SFA	SFA-S2			
Modulating (2...10 V) ¹⁾		without auxiliary switch		without auxiliary switch		without auxiliary switch	with 2 auxiliary switches SPDT	without auxiliary switch	with 2 auxiliary switches SPDT	without auxiliary switch	with 2 auxiliary switches SPDT	
24 V	150 s	TF24-SR		LF24-SR		NF24A-SR	NF24A-SR-S2	SF24A-SR	SF24A-SR-S2	EF24A-SR	EF24A-SR-S2	
230 V	150 s	TF230-SR										
Parameterisable ²⁾		without auxiliary switch		without auxiliary switch		without auxiliary switch		without auxiliary switch		without auxiliary switch		
24 V	40...75 s			LF24-MFT2								
	75 s	TF24-MFT				NF24A-MP		SF24A-MP		EF24A-MP		

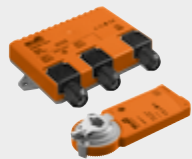
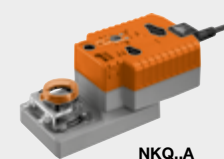



Technical Data					
Spindle diameter	6...12 mm	8...16 mm	10...25.4 mm	10...25.4 mm	12...26.7 mm
	Running time	<25 s	20 s	<20 s	<20 s
emergency setting position 90°	Manual override	–	–	Hand crank	Hand crank
	Connection	Connecting cable 1 m, PVC	Connecting cable 1 m, PVC	Connecting cable 1 m, PVC	Connecting cable 1 m, FRNC
Direction of rotation		Can be selected by left-hand/right-hand installation	Can be selected by left-hand/right-hand installation	Can be selected by left-hand/right-hand installation	Can be selected by left-hand/right-hand installation
Angle of rotation		max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator		Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Motor sound power level		≤50 dB(A) @ 75 s	≤50 dB(A) @ 75 s	≤45 dB(A) @ 75 s	≤50 dB(A) @ 75 s
Emergency control function sound power level		≤62 dB(A) @ 25 s	≤62 dB(A) @ 20 s	≤62 dB(A) @ 20 s	≤62 dB(A) @ 20 s
Degree of protection		IP 42	IP 54	IP 54	IP 54 / IP66 ³⁾
EMC		CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature		–30...50 °C	–30...50 °C	–30...50 °C	–30...50 °C ⁴⁾
Non-operating temperature		–40...80 °C	–40...80 °C	–40...80 °C	–40...80 °C
Ambient humidity range		95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA.
²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.
³⁾ IP 66 versions on request.
⁴⁾ Heating for ambient temperatures to –40 °C on request.
Other versions on request.

Electrical installation

Open-close	3-point
<div><div>..F24, ..F24-S, ..F230, ..F230-S</div></div> <div><div>..F24A, ..F24A-S2, ..F230A, ..F230A-S2, ..FA, ..FA-S2</div></div>	<div><div>TF24-3, ..F24A-3</div></div>
Modulating	Parameterisable
<div><div>TF24-SR, TF230-SR, ..F24A-SR, ..F24A-SR-S2</div><div>Y = DC 0...10 V U = DC 2...10 V</div></div> <div><div>..F24-MFT..., ..F24A-MP</div><div>Y = positioning signal U = position feedback</div></div>	

Modulating		
TF24-SR, TF230-SR	LF24-SR	..F24A-SR, ..F24A-SR-S2
		

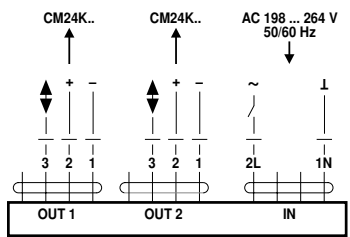
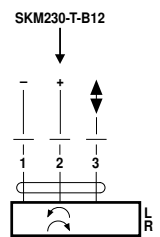
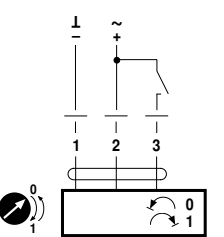
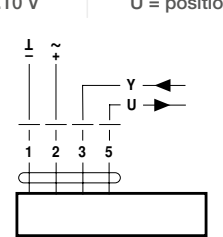
Nominal torque	2 Nm	6 Nm	40 Nm	
Damper size up to approx.	0.4 m ²	1.2 m ²	8 m ²	
Nominal voltage AC/DC 24 V AC 230 V				
	NKQ...A			
	GK...A			
	Open-close			
	 counterclockwise rotation	 clockwise rotation		
	24 V	CM24K-T-L.2	CM24K-T-R.2	NKQ24A-1
	External SuperCap module			
	230 V	SKM230-T-B12.1		
	Modulating (2...10 V) ¹⁾			
24 V		NKQ24A-SR	GK24A-SR	
Parameterisable ²⁾				
24 V			GK24A-MP	



Technical Data

Spindle diameter	6...12.7 mm	8...26.7 mm	12...26.7 mm
Running time motor 90°	75 s	4 s	150 s
Running time emergency control function 90°	15 s	4 s	35 s
Manual override	Gear disengagement with magnet	Gear disengagement with push button	Gear disengagement with push button
Direction of rotation	Can be selected via actuator	Can be selected with switch	Can be selected with switch
Connection	Connecting terminals	Connecting cable 1 m	Connecting cable 1 m
Angle of rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Motor sound power level	≤35 dB(A) @ 75 s	≤60 dB(A) @ 4 s	≤52 dB(A) @ 150 s
Emergency control function sound power level	≤55 dB(A) @ 15 s	≤60 dB(A) @ 4 s	≤61 dB(A) @ 35 s
Degree of protection	IP 20 (CM24..) / IP 40 (SKM..)	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	−30...50 °C	−30...50 °C	−30...50 °C
Non-operating temperature	−40...80 °C	−40...80 °C	−40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 0.5 mA.
²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.
Other versions on request.

Electrical installation

Open-close	Open-close	Modulating	Parameterisable
SKM230-T-B12.1	CM24K-T..	GK24A-1, NKQ24A-1	..24A-SR
CM24K... CM24K... AC 198 ... 264 V 50/60 Hz	SKM230-T-B12	Y = DC 0...10 V U = DC 2...10 V	Y = positioning signal U = position feedback
			

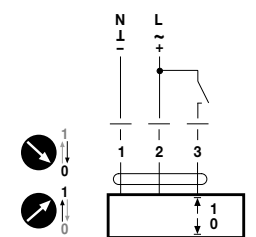
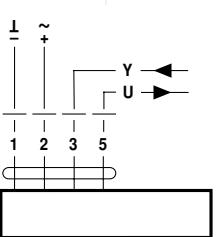
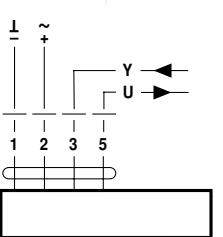
Actuating force	150 N	450 N
Damper size up to approx.	1 m²	3 m²
Nominal voltage AC/DC 24 V		
Open-close		
24 V		
Modulating (2...10 V) ¹⁾		
24 V		
Parameterisable ²⁾		
24 V		

Technical Data

Stroke range	0...100 mm	0...100 mm
Running time motor 100 mm	120 s	120 s
Running time emergency setting position 100 mm	35 s	35 s
Manual override	Gear disengagement with push button	Gear disengagement with push button
Direction of rotation	Can be selected with switch	Can be selected with switch
Connection	Connecting cable 1 m	Connecting cable 1 m
Motor sound power level	≤45 dB(A) @ 120 s	≤52 dB(A) @ 120 s
Emergency control function sound power level	≤65 dB(A) @ 35 s	≤61 dB(A) @ 35 s
Degree of protection	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	−30...50 °C	−30...50 °C
Non-operating temperature	−40...80 °C	−40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing

¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 0.5 mA.
²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.
Other versions on request.

Electrical installation

Open-close	Modulating	Parameterisable
..HK24A-1-100	..HK24A-SR	..HK24A-MP
	Y = DC 0...10 V U = DC 2...10 V 	Y = positioning signal U = position feedback 

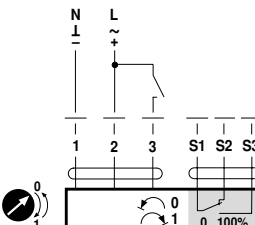
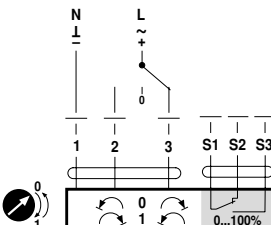
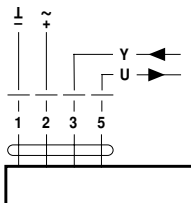
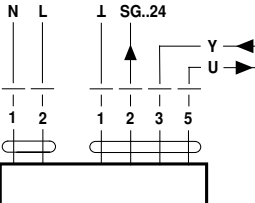
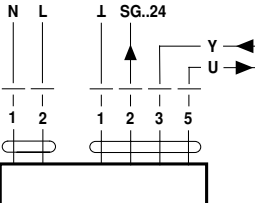
Nominal torque		2 Nm	5 Nm	10 Nm	20 Nm
Damper size up to approx.		0.4 m²	1 m²	2 m²	4 m²
Nominal voltage AC/DC 24 V AC 230 V	Auxiliary switch SPDT				
		TMC..A	LMC..A	NMC..A-MP	SMC..A-MP
Open-close, 3-point					
24 V	1	TMC24A	LMC24A		
		TMC24A-S			
230 V	1	TMC230A	LMC230A		
		TMC230A-S	LMC230A-S		
Modulating (2...10 V) ¹⁾					
24 V		TMC24A-SR	LMC24A-SR		
230 V		TMC230ASR			
Parameterisable ²⁾					
24 V				NMC24A-MP	SMC24A-MP




Technical Data

Spindle diameter	6...20 mm	6...20 mm	8...26.7 mm	10...20 mm
Running time motor 90°	35 s	35 s	35 s	35 s
Manual override	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked
Connection	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m
Direction of rotation	Can be selected with switch	Can be selected with switch	Can be selected with switch	Can be selected with switch
Angle of rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Sound power level	≤40 dB(A) @ 35 s	≤45 dB(A) @ 35 s	≤45 dB(A) @ 35 s	≤55 dB(A) @ 35 s
Degree of protection	IP 54	IP 54	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	-30...50 °C	-30...50 °C	-30...50 °C	-30...50 °C
Non-operating temperature	-40...80 °C	-40...80 °C	-40...80 °C	-40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA.
²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU. Other versions on request.

Electrical installation

Open-close	3-point	Modulating	Parameterisable	Modulating
..MC24A, TMC24A-S, ..MC230A, TMC230A-S	..MC24A, TMC24A-S, ..MC230A, TMC230A-S	..MC24A-SR	..MC24A-MP	TMC230ASR
				

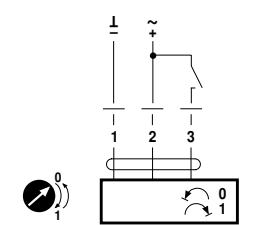
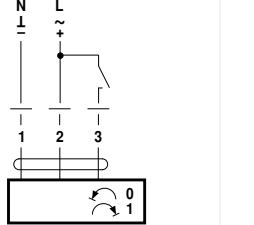
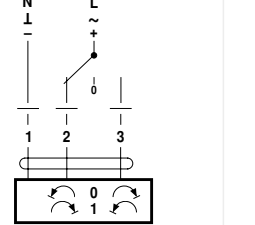
Nominal torque	4 Nm	8 Nm	8 Nm	16 Nm	16 Nm
	0.8 m²	1.5 m²	1.5 m²	3.2 m²	3.2 m²
Damper size up to approx.					
	LMQ..A	NMQ..A	NMD..A	SMQ..A	SMD..A
Nominal voltage AC/DC 24 V AC 230 V					
Open-close					
24 V	LMQ24A	NMQ24A		SMQ24A	
Open-close, 3-point					
24 V					SMD24A
230 V			NMD230A		SMD230A
Modulating (2...10 V) ¹⁾					
24 V	LMQ24A-SR	NMQ24A-SR		SMQ24A-SR	




Technical Data

Spindle diameter	8...26.7 mm	8...26.7 mm	10...20 mm	12...26.7 mm	10...20 mm
Running time motor 90°	2.5 s	4 s	20 s	7 s	20 s
Manual override	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked
Connection	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m
Direction of rotation	Can be selected with switch	Can be selected with switch	Can be selected with switch	Can be selected with switch	Can be selected with switch
Angle of rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
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
Degree of protection	IP 54	IP 54	IP 54	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
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
Non-operating temperature	-40...80 °C	-40...80 °C	-40...80 °C	-40...80 °C	-40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

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

Open-close	3-point	Modulating
..MQ24A	NMD..A / SMD..A	NMD..A / SMD..A
		

Nominal torque		10 Nm	20 Nm	6 Nm
Damper size up to approx.		2 m²	4 m²	1.2 m²
Open-close 3-point (2–10 V) Parameterisable Nominal voltage AC/DC 24 V AC 230 V				
	NM..P		SM..P	NKQ..P
	without auxiliary switch		with 1 auxiliary switch SPDT	without auxiliary switch
	with 1 auxiliary switch SPDT		without auxiliary switch	with 1 auxiliary switch SPDT
	without auxiliary switch		without auxiliary switch	without auxiliary switch
Open/close, 3-point				
• • • • • 24 V		NM24P	NM24P-S	SM24P
• • • • • 24 V				SM24P-S
• • • • • 230 V		NM230P ³⁾	NM230P-S ³⁾	SM230P ³⁾
				SM230P-S ³⁾
				NKQ24P-1
Modulating (2...10 V) ¹⁾				
• • • • • 24 V		NM24P-SR	SM24P-SR	NKQ24P-SR
• • • • • 230 V		NM230PSR ³⁾	SM230PSR ³⁾	
Parameterisable ²⁾				
• • • • • 24 V		NM24P-MP	SM24P-MP	

Technical Data				
Emergency control function		–	–	– –
Spindle diameter		10...20 mm	14...20 mm	10...20 mm
Running time motor 90°		150 s	150 s	4 s
Running time emergency control function 90°		–	–	4 s
Manual override		Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button
Connection		Connecting cable 1 m, FRNC	Connecting cable 1 m, FRNC	Connecting cable 1 m, FRNC
Direction of rotation		Can be selected with switch	Can be selected with switch	Can be selected with switch
Angle of rotation		max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator		Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Sound power level		≤35 dB(A) @ 150 s	≤45 dB(A) @ 150 s	≤60 dB(A) @ 4 s
Degree of protection		IP 66 and IP 67	IP 66 and IP 67	IP 66 and IP 67
EMC		CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature		–30...50 °C (with heating to –40 °C) ³⁾	–30...50 °C (with heating to –40 °C) ³⁾	–30...50 °C
Non-operating temperature		–40...80 °C	–40...80 °C	–40...80 °C
Ambient humidity range		100% r.h.	100% r.h.	100% r.h.

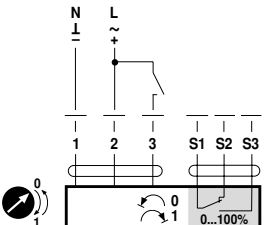
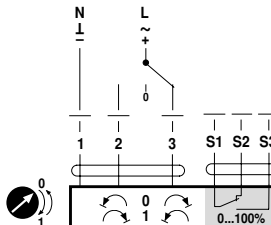
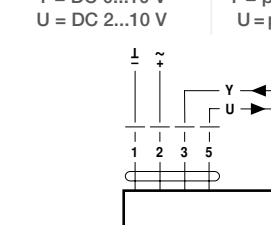
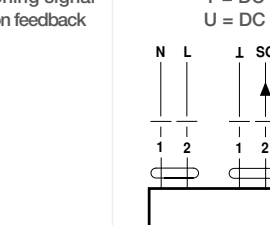
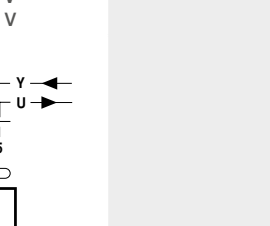
–|– = actuators with electrical emergency control function.






¹⁾ Modulating actuators: positioning signal Y = DC 0–10 V / 100 kΩ; operating range 2–10 V; position feedback U = DC 2–10 V, max. 1 mA for NM..P and SM..P, max. 0.5 mA for NKQ..P.

²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.

³⁾ Available with heating and thermostat AC 230 V or heating and humidistat AC 230 V for ambient temperature to –40 °C (see overview of accessories on [page 9](#)).

Other versions on request.

Open-close	3-point	Modulating	Parameterisable	Modulating
..M24P, ..M24P-S, ..M230P, ..M230P-S, NKQ24P-1	..M24P, ..M24P-S, ..M230P, ..M230P-S	..24P-SR	..24P-MP	..M230PSR
				

Nominal torque		16 Nm	40 Nm	10 Nm	20 Nm	40 Nm			
Damper size up to approx.		3.2 m²	8 m²	2 m²	4 m²	8 m²			
Nominal voltage AC/DC 24 V AC 230 V	Running time motor 90°								
		SMQ..G	GM..G..	NF..G	SF..G	GK..G..			
Open-close		without auxiliary switch	without auxiliary switch	without auxiliary switch	with 2 auxiliary switches SPDT	without auxiliary switch	without auxiliary switch	with 2 auxiliary switches SPDT	without auxiliary switch
24 V	7 s	SMQ24G							
	150 s		GM24G-T						GK24G-1
230 V	150 s		GM230G-T						
AC 24...240 V DC 24...125 V		<75 s		NFG-L	NFG-S2-L	SFG-L	SFG-S2-L		
Modulating (2...10 V) ¹⁾		without auxiliary switch	without auxiliary switch	without auxiliary switch	with 2 auxiliary switches SPDT	without auxiliary switch	with 2 auxiliary switches SPDT		without auxiliary switch
24 V	7 s	SMQ24G-SR							
	150 s		GM24G-SR-T	NF24G-SR-L	NF24G-SR-S2-L	SF24G-SR-L	SF24G-SR-S2-L		GK24G-SR
Parameterisable ²⁾		without auxiliary switch	without auxiliary switch	without auxiliary switch		without auxiliary switch			without auxiliary switch
24 V	<75 s			NF24G-MP-L		SF24G-MP-L			
	150 s		GM24G-MP-T						GK24G-MP

Technical Data						
Emergency control function		–	–	⊗	⊗	– –
Spindle diameter		12...26.7 mm	14...26.7 mm	12...26.7 mm	12...26.7 mm	14...26.7 mm
Running time emergency control function 90°		–	–	<20 s	<20 s	35 s
Manual override		Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Hand crank	Hand crank	Gear disengagement with push button
Connection		Connecting cable 1 m, FRNC	Connecting terminals	Connecting cable 1 m, FRNC	Connecting cable 1 m, FRNC	Connecting cable 1 m, FRNC
Direction of rotation		Can be selected with switch	Can be selected with switch	↺ counterclockwise rotation	↺ counterclockwise rotation	Can be selected with switch
Angle of rotation		max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator		Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Motor sound power level		≤63 dB(A) @ 7 s	≤45 dB(A) @ 150 s	≤45 dB(A) @ 150 s	≤45 dB(A) @ 150 s	≤52 dB(A) @ 150 s
Emergency control function sound power level		–	–	≤62 dB(A) @ 20 s	≤62 dB(A) @ 20 s	≤61 dB(A) @ 35 s
Degree of protection		IP 66	IP 66	IP 66	IP 66	IP 66
EMC		CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature		–30...40 °C ³⁾ (40...50 °C limited) ⁴⁾	–30...50 °C ³⁾	–30...50 °C ³⁾	–30...50 °C ³⁾	–30...50 °C ³⁾
Non-operating temperature		–40...80 °C	–40...80 °C	–40...80 °C	–40...80 °C	–40...80 °C
Ambient humidity range		100% r.h.	100% r.h.	100% r.h.	100% r.h.	100% r.h.

⊗ = actuators with mechanical emergency control function.

–|– = actuators with electrical emergency control function.

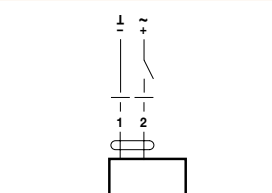
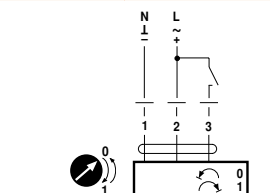
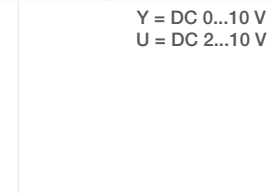
¹⁾ Modulating actuators: positioning signal Y = DC 0...10 V, 100 kΩ; operating range 2...10 V / position feedback U = DC 2...10 V, max. 1 mA for GM..G, NF..G and SF..G, max. 0.5 mA for SMQ..G and GK..G.



²⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.

³⁾ Available with heating and thermostat/humidistat for ambient temperature to –40 °C (see overview of accessories on [page 9](#)).

⁴⁾ Please get in touch with your local Belimo contact person.

Other versions on request.

Open-close	Modulating	Parameterisable
..FG..-L	GM..G, GK24G-1, SMQ24G	..24G-SR..
		

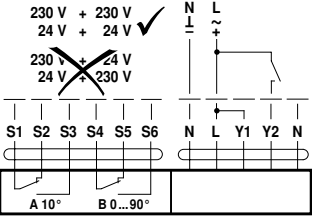
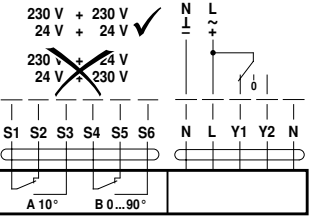
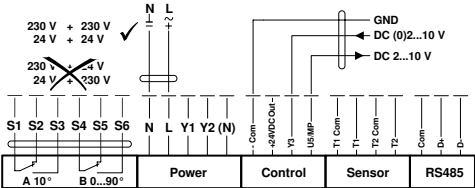
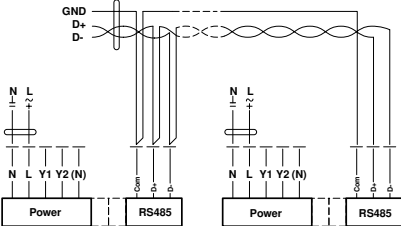
Nominal torque	160 Nm		
	Special		
Damper size up to approx.			
	PMCA..		PKCA..

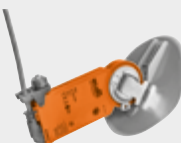



Parameterisable	AC 24...240 V DC 24...125V	PMCA-S2-T	PMCA-BAC-S2-T	PKCA-BAC-S2-T
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Control	Open-close 3-point	Modulating (2...10 V) Modulating (4...20 mA) BACnet MS/TP Modbus RTU MP Bus Open-close 3-point	Modulating (2...10 V) Modulating (4...20 mA) BACnet MS/TP Modbus RTU MP Bus Open-close 3-point
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Technical Data				
Emergency control function	—	—	—II—	
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 emergency setting position 90°	—	—	30 s	
Manual override	Hand crank	Hand crank	Hand crank	
Connecting	Connecting terminals	Connecting terminals	Connecting terminals	
Direction of rotation	Can be selected with Tool	Can be selected with Tool	Can be selected with Tool	
Position indicator	Mechanically (integrated)	Mechanically (integrated)	Mechanically (integrated)	
Auxiliary Switch	2x SPDT	2x SPDT	2x SPDT	
Motor sound power level	68 dB(A)	68 dB(A)	68 dB(A)	
Sound power level emergency setting position	—	—	61 dB(A)	
Degree of protection	IP 66/67 NEMA 4X	IP 66/67 NEMA 4X	IP 66/67 NEMA 4X	
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	
Ambient temperature	−30...50 °C	−30...50 °C	−30...50 °C	
Non-operating temperature	−40...80 °C	−40...80 °C	−40...80 °C	
Ambient humidity range	100% r.h.	100% r.h.	100% r.h.	
Parameterisation Commissioning, maintenance	Belimo Assistant App ZTH EU	Belimo Assistant App ZTH EU	Belimo Assistant App ZTH EU	

Electrical installation

Open-close	3-point
PMCA-S2-T / PMCA-BAC-S2-T / PKCA-BAC-S2-T	
	
Modulating	Communicative (BACnet, Modbus)
PMCA-BAC-S2-T / PKCA-BAC-S2-T	
	

Nominal torque	2 Nm	2 Nm	2 Nm	2 Nm
	DN 100	DN 125	DN 150	DN 160
Pipe diameter in accordance with DIN EN 1506				
	CM..-100D	CM..-125D	CM..-150D	CM..-160D

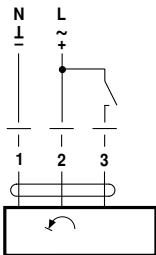
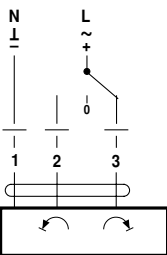
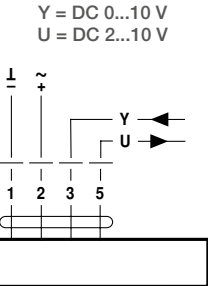
Open-close, 3-point	24 V	CM24-L-100D.2	CM24-L-125D.2	CM24-L-150D.2	CM24-L-160D.2
	230 V	CM230-L-100D.2	CM230-L-125D.2	CM230-L-150D.2	CM230-L-160D.2

Modulating (2...10 V) ¹⁾	24 V	CM24-SR-L-100D.2	CM24-SR-L-125D.2	CM24-SR-L-150D.2	CM24-SR-L-160D.2
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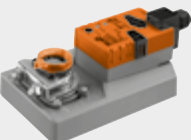
Technical Data				
Pipe diameter	100 mm	125 mm	150 mm	160 mm
Running time motor 70°	58 s	58 s	58 s	58 s
Air tight in accordance with DIN EN 1751	Class 3	Class 2	Class 2	Class 2
Resistance coefficient ζ in open position	0.48	0.3	0.3	0.3
Static differential pressure Δp via the damper	≤1000 Pa	≤1000 Pa	≤1000 Pa	≤1000 Pa
Manual override	Gear disengagement with magnet	Gear disengagement with magnet	Gear disengagement with magnet	Gear disengagement with magnet
Connection	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m	Connecting cable 1 m
Direction of rotation	↺ counterclockwise rotation (close position)	↺ counterclockwise rotation (close position)	↺ counterclockwise rotation (close position)	↺ counterclockwise rotation (close position)
Angle range, damper blade	70° (open–close)	70° (open–close)	70° (open–close)	70° (open–close)
Sound power level	≤35 dB(A) @ 58 s	≤35 dB(A) @ 58 s	≤35 dB(A) @ 58 s	≤35 dB(A) @ 58 s
Degree of protection	IP 54	IP 54	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	−30...50 °C	−30...50 °C	−30...50 °C	−30...50 °C
Non-operating temperature	−40...80 °C	−40...80 °C	−40...80 °C	−40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

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

Electrical installation

Open-close	3-point	Modulating
CM24-L-..., CM230-L-...	CM24-L-..., CM230-L-...	CM24-SR-L-...
		



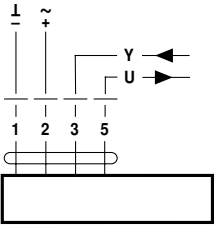
Nominal torque	5 Nm	10 Nm	20 Nm	40 Nm
Damper size up to approx.	1 m²	2 m²	4 m²	8 m²
Nominal voltage AC/DC 24 V				
Parameterisable ¹⁾				
24 V	LM24A-MP-TP	NM24A-MP-TP	SM24A-MP-TP	GM24A-MP-TP

Technical Data


Spindle diameter	6...20 mm	8...26.7 mm	10...20 mm	12...26.7 mm
Running time motor 90°	150 s	150 s	150 s	150 s
Manual override	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked	Gear disengagement with push button, can be locked
Connection	Connecting terminals	Connecting terminals	Connecting terminals	Connecting terminals
Direction of rotation	Can be selected with switch	Can be selected with switch	Can be selected with switch	Can be selected with switch
Angle of rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on	Mechanical, add-on
Sound power level	≤35 dB(A) @ 150 s	≤35 dB(A) @ 150 s	≤45 dB(A) @ 150 s	≤45 dB(A) @ 150 s
Degree of protection	IP 54	IP 54	IP 54	IP 54
EMC	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU	CE according to 2014/30/EU
Ambient temperature	−30...50 °C	−30...50 °C	−30...50 °C	−30...50 °C
Non-operating temperature	−40...80 °C	−40...80 °C	−40...80 °C	−40...80 °C
Ambient humidity range	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing	95% r.h., non-condensing

¹⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.
Other versions on request.

Electrical installation

Parameterisable
..M24A-MP-TP
Y = positioning signal U = position feedback




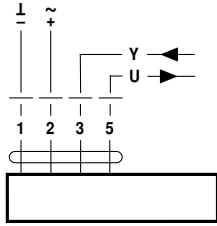
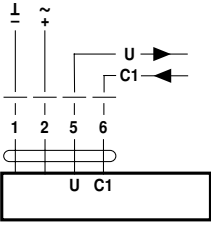
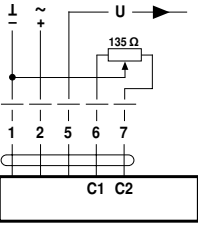
Nominal torque	20 Nm
Damper size up to approx.	4 m²
Nominal voltage AC/DC 24 V	
Control	SM...A..
Parameterisable ¹⁾	
24 V	Modulating 4...20 mA Modulating 0...20 V Phs Modulating 0...135 Ω
	SM24A-MA SM24A-PC SM24A-R9


Technical Data

Spindle diameter	10...20 mm
Running time motor 90°	150 s (86...346 s)
Manual override	Gear disengagement with push button, can be locked
Connection	Connecting cable 1 m
Direction of rotation	Can be selected with switch
Angle of rotation	max. 95°, can be limited at both ends with adjustable mechanical end stops
Position indicator	Mechanical, add-on
Sound power level	≤45 dB(A) @ 150 s
Degree of protection	IP 54
EMC	CE according to 2014/30/EU
Ambient temperature	−30...50 °C
Non-operating temperature	−40...80 °C
Ambient humidity range	95% r.h., non-condensing

¹⁾ Running time and further functions adjustable with PC-Tool or the parameterising device ZTH EU.
Other versions on request.

Electrical installation

Modulating		
SM24A-MA	SM24A-PC	SM24A-R9
Y = positioning signal (4...20 mA) U = position feedback (DC 2...10 V)	U = position feedback (DC 2...10 V) C1 = positioning signal (0–20 V phase-cut signal)	U = position feedback (DC 2...10 V)
		

Stroke (gear rod)	Actuating force	Damper size up to approx.	150 N 1 m²	
Parameterisable ¹⁾	Nominal voltage AC/DC 24 V			LH..A60
60 mm 100 mm 200 mm 300 mm	24 V			LH24A-MP60-TP LH24A-MP100-TP LH24A-MP200-TP LH24A-MP300-TP

Technical Data

Running time motor 100 mm	150 s
Manual override	Gear disengagement with push button, can be locked
Connection	Connecting terminals
Direction of stroke	Can be selected with switch
Height of stroke	Adjustable in 20 mm increments
Sound power level	≤45 dB(A) @ 150 s
Degree of protection	IP 54
EMC	CE according to 2014/30/EU
Ambient temperature	−30...50 °C
Non-operating temperature	−40...80 °C
Ambient humidity range	95% r.h., non-condensing

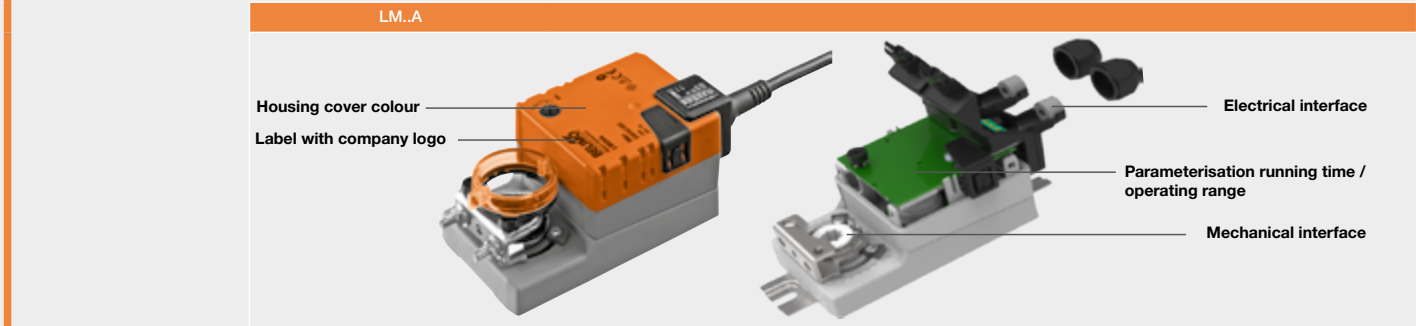
¹⁾ Control, operating range, feedback, running time and further functions on MP types adjustable with PC-Tool or the parameterising device ZTH EU.

Electrical installation






Parameterisable
..H24A-MP..
Y = positioning signal U = position feedback


Some actuator product ranges permit adaptation to special customer preferences. These allow - based on 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



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 blue	Font: black white	Label: transparent blue	Font: black white	Label: transparent blue	Font: black white	Label: transparent blue	Font: black white
Mechanical interface	Spindle clamp 6...12.7 mm Form fit 6x6 mm Form fit 8x8 mm Form fit 10x10 mm		Spindle clamp, one-sided 6...20 mm Form fit 8x8 mm Form fit 10x10 mm Form fit 12x12 mm		Spindle clamp, one-sided 8...26.7 mm Spindle clamp reversible 8...20 mm Form fit 8x8 mm Form fit 10x10 mm Form fit 12x12 mm Form fit 16x16 mm		Spindle clamp reversible 10...20 mm Spindle clamp, one-sided 8...26.7 mm Form fit 10x10 mm Form fit 12x12 mm Form fit 16x16 mm		Spindle 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	
Parameterisation Run 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	
Parameterisation Operating range	2...10V 0.5...10V Adaption option		2...10V 0.5...10V Adaption option		2...10V 0.5...10V Adaption option		2...10V 0.5...10V Adaption option		2...10V 0.5...10V Adaption option	
Packaging	Single pack Multi-packs of 20 pieces		Single pack Multi-packs of 20 pieces		Single pack Multi-packs of 20 pieces		Single pack Multi-packs of 20 pieces		Single pack Multi-packs of 20 pieces	
General	Feasibility of the combinations on request Minimum order quantity with coloured label or customer logo: 20 pieces									

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

Example



Numeration is not exhaustive.

	Rotary actuators with mechanical emergency control function				Very fast running rotary actuator		Linear actuator	
	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: grey	Font: black	Label: transparent blue black	Font: black white white	Label: transparent blue black	Font: black white white
Mechanical interface	Spindle clamp reversible 10...25.4 mm Form fit 10x10 mm Form fit 12x12 mm Form fit 16x16 mm		Spindle clamp reversible 12...26.7 mm		Spindle clamp, one-sided 8...26.7 mm 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	
Parameterisation Run 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	
Parameterisation Operating range	2...10V 0.5...10V Adaption option		2...10V 0.5...10V Adaption option		2...10V 0.5...10V Adaption option		2...10V 0.5...10V Adaption option	
Packaging	Single pack Multi-packs of 20 pieces		Single pack Multi-packs of 20 pieces		Single pack Multi-packs of 20 pieces		Single pack Multi-packs of 20 pieces	
Special			Heating					
General	Feasibility of the combinations on request Minimum order quantity with coloured label or customer logo: 20 pieces							