

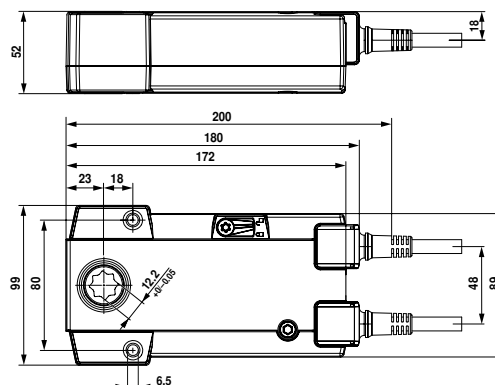
- For control of Fire and Smoke Dampers in HVAC systems
- Nominal torque: 9Nm/7Nm
- Nominal voltage: AC/DC 24V
- Control: Open/Close
- Manual override function
- Spindle driver Form fit 12x12mm, continuous hollow shaft



## Technical data

<b>Electrical data</b>	Nominal voltage	AC/DC 24V
	Nominal voltage frequency	50/60Hz
	Nominal voltage range	AC 19.2V...28.8V / DC 21.6V...28.8V
	Power consumption	BFN24(-ST) 4W @ running / 1W @ holding
		BFN24-T(-ST) 4W @ running / 1.1W @ holding
	Power consumption for wire sizing	6VA (Imax 8.3A @ 5ms)
	Auxiliary switch	2 x SPDT
	Switching capacity auxiliary switch	1mA...3 (0.5) A, AC 250V (II Protective insulated)
	Switching points auxiliary switch	5° / 80°
	Connection supply	Cable 1m, 2 x 0.34mm <sup>2</sup> (halogen-free)
	Connection auxiliary switch	Cable 1m, 6 x 0.75mm <sup>2</sup> (halogen-free)
	Cable length	BFN24-T 0.5m
	thermoelectric tripping device	BFN24-T-ST
	<b>Functional data</b>	Torque motor
Torque spring return		Min. 7Nm
Direction of rotation motor		Can be selected by mounting L/R
Manual override		With position stop
Angle of rotation		Max. 95° (incl. 5° initial spring tension)
Angle of rotation note		(incl. 5° initial spring tension)
Running time motor		<60s / 90°
Running time spring return		20s @ -10...55°C / <60s @ -30...-10°C
Sound power level motor max.		55dB(A)
Sound power level spring return max.		70dB(A)
Damper rotation		Form fit 12x12mm, continuous hollow shaft
Position indication		Mechanically, with pointer
Service life	>60,000 safety positions	
<b>Safety</b>	Response temperature	BFN24-T(-ST): Duct outside temperature 72°C
	thermal fuse	BAT Duct inside temperature 72°C
	Protection class IEC/EN	III Safety extra-low voltage
	Degree of protection IEC/EN	IP54 in all mounting positions
	EMC	CE according to 2004/108/EC
	Low-voltage directive	CE according to 2006/95/EC
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
	Mode of operation	Type 1.AA.B
	Rated impulse voltage supply/control	0.8kV
	Control pollution degree	3
	Ambient temperature	-Normal Duty -30...55°C
		-Safety Duty The safety position will be attained up to max. 75°C
	Non-operating temperature	-40...55°C (-40...80°C without thermal trip)
Ambient humidity	95% r.h., non-condensing	
Maintenance	Maintenance-free	
<b>Weight</b>	Weight	BFN24(-ST)(-T-ST) Approx. 1.4kg
		BFN24-T Approx. 1.5kg

## Dimensions [mm]



# Fire and Smoke Spring Return Actuator BFN230(-T)



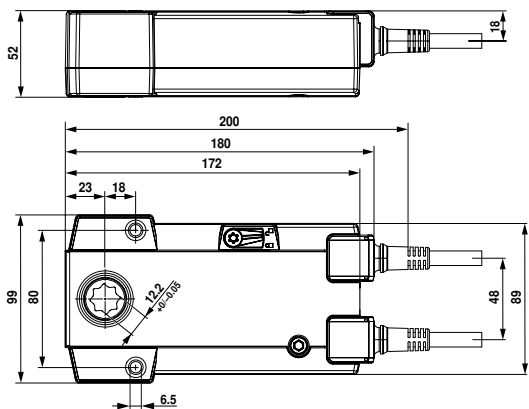
- For control of Fire and Smoke Dampers in HVAC systems
- Nominal torque: 9Nm/7Nm
- Nominal voltage: AC 230V
- Control: Open/Close
- Manual override function
- Spindle driver Form fit 12x12mm, continuous hollow shaft



## Technical data

<b>Electrical data</b>	Nominal voltage		AC 230V	
	Nominal voltage frequency		50/60Hz	
	Nominal voltage range		AC 198...264V	
	Power consumption	BFN230	5W @ running / 1.5W @ holding	
		BFN230-T	5.5W @ running / 1.8W @ holding	
	Power consumption for wire sizing		10.5VA (Imax 4A @ 5ms)	
	Auxiliary switch		2 x SPDT	
	Switching capacity auxiliary switch		1mA...3 (0.5) A, AC 250V (II Protective insulated)	
	Switching points auxiliary switch		5° / 80°	
	Connection supply		Cable 1m, 2 x 0.34mm <sup>2</sup> (halogen-free)	
	Connection auxiliary switch		Cable 1m, 6 x 0.75mm <sup>2</sup> (halogen-free)	
	Cable length thermoelectric tripping device	BFN230-T	1m	
	<b>Functional data</b>	Torque motor		Min. 9Nm
		Torque spring return		Min. 7Nm
Direction of rotation motor			Can be selected by mounting L/R	
Manual override			With position stop	
Angle of rotation			Max. 95° (incl. 5° initial spring tension)	
Angle of rotation note			(incl. 5° initial spring tension)	
Running time motor			<60s / 90°	
Running time spring return			20s @ -10...55°C / <60s @ -30...-10°C	
Sound power level motor max.			55dB(A)	
Sound power level spring return max.			70dB(A)	
Damper rotation			Form fit 12x12mm, Continuous hollow shaft	
Position indication			Mechanically, with pointer	
Service life		>60,000 safety positions		
<b>Safety</b>	Response temperature	BFN230-T:	Duct outside temperature 72°C	
	thermal fuse	BAT	Duct inside temperature 72°C	
	Protection class IEC/EN		II Protective insulated	
	Degree of protection IEC/EN		IP54 in all mounting positions	
	EMC		CE according to 2004/108/EC	
	Low-voltage directive		CE according to 2006/95/EC	
	Certification IEC/EN		IEC/EN 60730-1 and IEC/EN 60730-2-14	
	Mode of operation		Type 1.AA.B	
	Rated impulse voltage supply/control		4kV	
	Control pollution degree		3	
	Ambient temperature	-Normal Duty	-30...55°C	
		-Safety Duty	The safety position will be attained up to max. 75°C	
	Non-operating temperature		-40...55°C (-40...80°C without thermal trip)	
	Ambient humidity		95% r.h., non-condensing	
Maintenance		Maintenance-free		
<b>Weight</b>	Weight	BFN230	Approx. 1.4kg	
		BFN230-T	Approx. 1.5kg	

## Dimensions [mm]



**Wiring diagram: B..F.. series Fail-Safe Open/Close Actuators**

**Notes:**

- Parallel connection of several actuators is possible.
- Power consumption must be observed.

