Napędy ze sprężyną powrotną

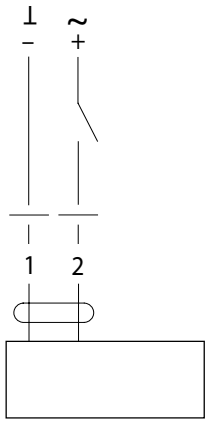
SF24A/SF230A

Technical specifications

Note:
Connected via a 24 V SELV transformer.

The mains isolating switch for the actuator should be a breaker with a min. contact gap of 3 mm (at break).

The product can be connected in parallel to downstream actuators. Check the maximum power consumption limit.



Colours of wires:
1 = black
2 = red

	SF24A	SF230A
Power supply	AC 24 V ± 20% 50/60 Hz DC 24 V± 10%	AC 220 to 240 V ± 10% 50/60 Hz
Design power	7.5 VA	11 VA
Power input		
when opening	5 W (at rated torque)	6.5 W
stationary	2.5 W	2.5 W
Connection	1 m wire with 2x 0.75 mm² cores	1 m wire with 2x 0.75 mm² cores
Sense of rotation		
Spring	CCW / CW, depends on the installation orientation	CCW / CW, depends on the installation orientation
Motor	CCW / CW, selectable	CCW / CW, selectable
Torque		
Motor	min. 20 Nm (at rated voltage)	min. 20 Nm (at rated voltage)
Spring	min. 20 Nm	min. 20 Nm
Angle of rotation	max. 95° (adjustable restriction, 30°..90° with integrated angle limiter)	max. 95° (adjustable restriction, 30°..90° with integrated angle limiter)
Turning time		
Motor	≤ 75 s	≤ 75 s
Spring	≤ 20 s	≤ 20 s
Noise level	Motor, max. 45 dB(A) / Spring, max. 62 dB(A)	Motor, max. 45 dB(A) / Spring, max. 62 dB(A)
Position indicator	mechanical	mechanical
Protection class	III (SELV)	II
Protection rating	IP54 (with the cable downward)	IP54 (with the cable downward)
Ambient temp.	-30 to +50°C	-30 to +50°C
Storage temp.	-40 to +80°C	-40 to +80°C
Ambient humidity	95% RH, w/o condensation	95% RH, w/o condensation
EMC emissions	EN 50081-1	EN 50081-1
Service life	ca. 60,000 cycles	ca. 60,000 cycles
Maintenance	maintenance-free	maintenance-free

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Ventilation damper actuators

CM/LMC/LM/NM/SM/LF/NF/SF

Technical specifications

Actuator type	*Power supply*	*Recommended diameter Ød / max. surface area, m²*	*Torque (Nm)*	*Travel time (s)*	*Universal clamp*	*Mounting*	*Description*	*More data ref.*	*Options*
CM24-L	AC/DC 24V	80-180 0,4 m²	2 Nm	75	6 - 12,7 mm	Flush	small footprint	p. <?>	F, T, SR, R, L, G
CM230-L	AC 230V	80-180 0,4 m²	2 Nm	75	6 - 12,7 mm	Flush	small footprint	p. <?>	F, T, R, L, G
LMC24A	AC/DC 24V	200-400 1 m²	5 Nm	35	6 - 20 mm	Flush	short closing time	p. <?>	F, S, SR, TP
LMC230A	AC/DC 230V	200-400 1 m²	5 Nm	35	6 - 20 mm	Flush	short closing time	p. <?>	F, S, TP
LM24A	AC/DC 24 V	200-400 1 m²	5 Nm	150	6 - 20 mm	Flush		p. <?>	S, TP, Q, F, SR
LM230A	AC/DC 230V	200-400 1 m²	5 Nm	150	6 - 20 mm	Flush		p. <?>	S, TP, Q, F
NM24A	AC/DC 24V	200-630 2 m²	10 Nm	150	8 - 26 mm	Flush		p. <?>	TP, SR, Q, F, S
NM230A	AC/DC 230V	200-630 2 m²	10 Nm	150	8 - 26 mm	Flush		p. <?>	TP, Q, F, S
SM24	AC/DC 24 V	200-630 4 m²	20 Nm	150	10 - 20 mm	Flush	high torque	p. <?>	S, TP, Q, F, SR
SM230	AC/DC 230V	200-630 4 m²	20 Nm	150	10 - 20 mm	Flush	high torque	p. <?>	S, TP, Q, F
LF24	AC/DC 24 V	80-355 0,8 m²	4 Nm	75	8 - 16 mm	Mount	w/return spring	p. <?>	S, SR, F
LF230	AC/DC 230 V	80-355 0,8 m²	4 Nm	75	8 - 16 mm	Mount	w/return spring	p. <?>	S, F
NF24A	AC/DC 24 V	200-630 2 m²	10 Nm	75	14 - 22 mm	Flush	w/return spring	p. <?>	S2, SR
NF230A	AC/DC 230 V	200-630 2 m²	10 Nm	75	14 - 22 mm	Flush	w/return spring	p. <?>	S2
SF24A	AC/DC 24 V	200-630 4 m²	20 Nm	75	14 - 22 mm	Mount	w/return spring	p. <?>	S2, SR
SF230A	AC/DC 230 V	200-630 4 m²	20 Nm	75	14 - 22 mm	Mount	w/return spring	p. <?>	S2

The standard actuator versions feature either open/close control or 3-position control (the return-spring actuators are only available with open/close control). The actuators feature a universal clamp form which can accommodate round and square shaft necks.
Optional product codes:

TP — wiring terminal plug only (no wiring included)
SR — 2 to 10 V analogue control for smooth opening and closing
T — wiring terminals only (no wiring included)
R — CW sense of rotation for CM actuators
S — integrated aux. output contact for e.g. a full damper opening feedback
S2 — two auxiliary output contacts: 1 fixed, 1 programmable. The auxiliary contacts allow feeding back the damper blade position: 10% and between 10 and 90%.
F — square shaft neck clamp only (the shaft neck size depends on the actuator size)
Q — extremely fast actuation (4 s)
G — IP66 enclosure (as per EN 60529:2003)

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Ventilation damper actuator

DM-ML, DM-FL

Description

The DM-ML and DM-FL series actuators are designed as drives for single-blade round dampers and multi-blade square dampers.

Product code example

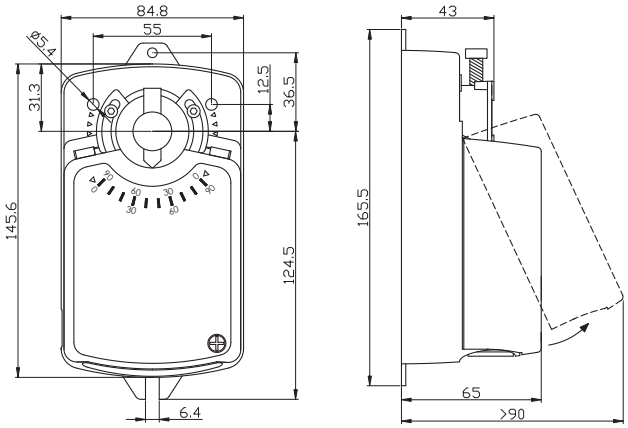
Product code: **DM-FL-05 - 230**

type

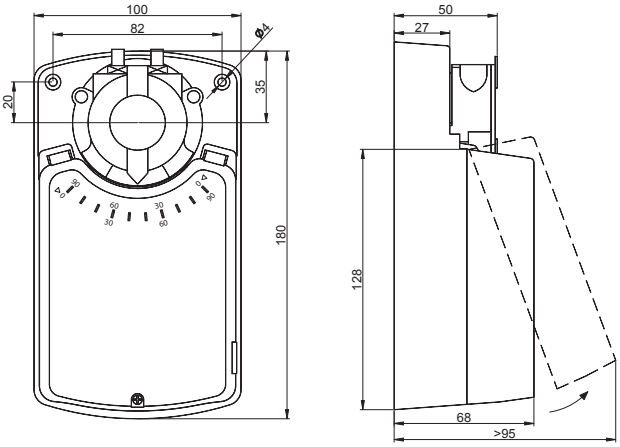
voltage

Dimensions

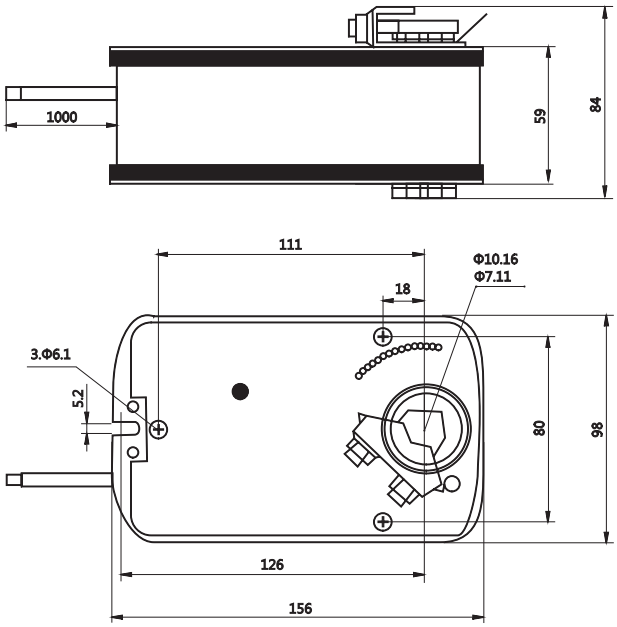
DM-ML-06



DM-ML-08



DM-FL-05



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Ventilation damper actuator

DM-ML, DM-FL

Technical specifications

Type	*Power supply*	*Recommended diameter Ød / max. surface area, m²*	*Torque (Nm)*	*Travel time (s)*	*Range of motion (°)*	*Universal clamp (mm)*
DM-ML-06-24	AC/DC 24V	80 - 400 mm 1,2 m²	6	40	0 - 95	Ø 6 - 16 □ 8 - 12
DM-ML-06-24-S	AC/DC 24V	80 - 400 mm 1,2 m²	6	40	0 - 95	Ø 6 - 16 □ 8 - 12
DM-ML-06-24-RS	AC/DC 24V	80 - 400 mm 1,2 m²	6	40	0 - 95	Ø 6 - 16 □ 8 - 12
DM-ML-06-230	AC 230V	80 - 400 mm 1,2 m²	6	40	0 - 95	Ø 6 - 16 □ 8 - 12
DM-ML-06-230-S	AC 230V	80 - 400 mm 1,2 m²	6	40	0 - 95	Ø 6 - 16 □ 8 - 12
DM-ML-06-230-RS	AC 230V	80 - 400 mm 1,2 m²	6	40	0 - 95	Ø 6 - 16 □ 8 - 12
DM-ML-08-24	AC/DC 24V	200 - 630 mm 1.5 m²	8	30	0 - 95	Ø 10 - 20 □ 10 - 16
DM-ML-08-230	AC 230V	200 - 630 mm 1.5 m²	8	30	0 - 95	Ø 10 - 20 □ 10 - 16
DM-FL-05-24	AC/DC 24V	80 - 355 mm 1,0 m²	5	50 - 70	0 - 95	Ø 10 - 16 □ 7 - 11
DM-FL-05-230	AC 230V	80 - 355 mm 1,0 m²	5	50 - 70	0 - 95	Ø 10 - 16 □ 7 - 11

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Ventilation damper actuators

DM-ML-06

Description

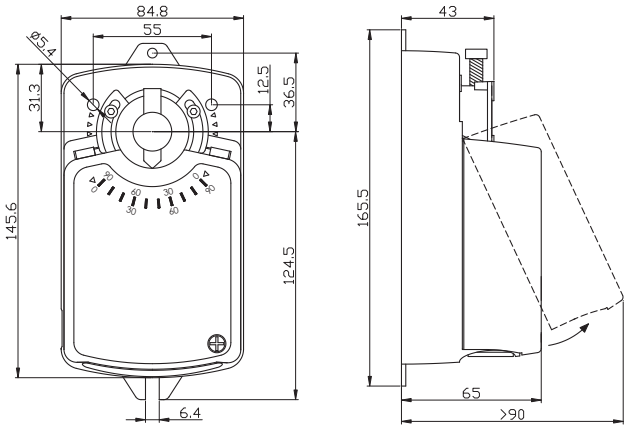
The DM-ML-06 actuator enables remote operation of a ventilation damper. The actuators with 6 Nm of torque are the most popular choice for ventilation dampers.
The torque of 6 Nm allows opening dampers with the cross-sectional surface area up to 1.2 m^2; they can be installed on ventilator dampers up to 400 mm in diameter.
The DM-ML-...-S actuators feature an auxiliary contact which, aside from accepting open and close commands, allows setting an intermediate opening position of the damper blade e.g. at 45%.
The DM-ML-...-RS actuators provide full operating control over a ventilation damper: they allow an infinitely variable control over the damper blade opening ratio.

Product code example

Product code: **DM-ML-06 - 230**

type
voltage

Dimensions



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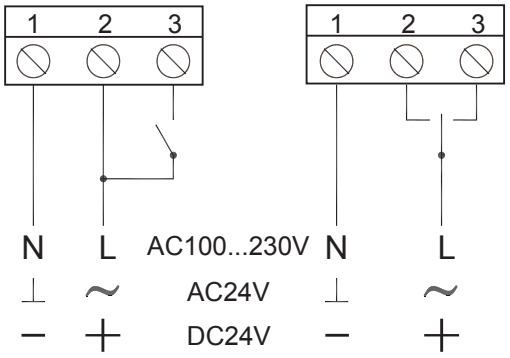
Ventilation damper actuators

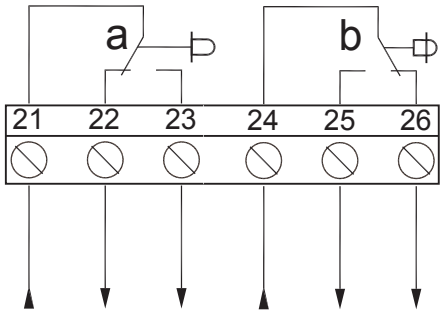
DM-ML-06

Technical specifications

DM-ML-06-24 / DM-ML-06-24-S / DM-ML-06-230 / DM-ML-06-230-S

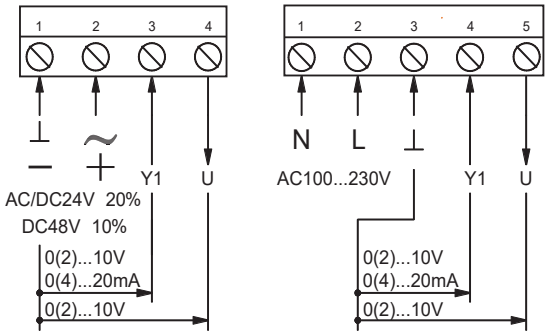


Open/close control 3-position control



Resistive load: 3 A, 230 V
Inductive load: 1.5 A, 230 V
Actuator positions at 0˚

DM-ML-06-24-RS / DM-ML-06-230-RS



	DM-ML-06-24 / DM-ML-06-24-S DM-ML-06-24-RS	DM-ML-06-230 / DM-ML-06-230-S DM-ML-06-230-RS
Power supply	AC 24 V 50/60 Hz	AC 230 V 50/60 Hz
	DC 24 V	
Power input	2.0 W	3.2 W
Wiring size selection	4.4 VA	4.4 VA
Core size	max. 2.0 mm²	max. 2.0 mm²
Torque	6 Nm	6 Nm
Sense of rotation	selectable	selectable
Angle of rotation	0 to 90˚ (max. 95˚)	0 to 90˚ (max. 95˚)
Turning time	40 s	40 s
Sound level	45 dB (A)	45 dB (A)
Position indicator	mechanical	mechanical
Protection rating	IP44	IP44
Ambient temperature	-20 to +50˚C	-20 to +50˚C
Max. humidity	95% RH, w/o condensation, as per EN 60730-1	95% RH, w/o condensation, as per EN 60730-1
Overload protection	automatic	automatic

S — integrated aux. output contact, e.g. for full damper opening feedback
RS — 2 to 10V analogue control for smooth opening and closing

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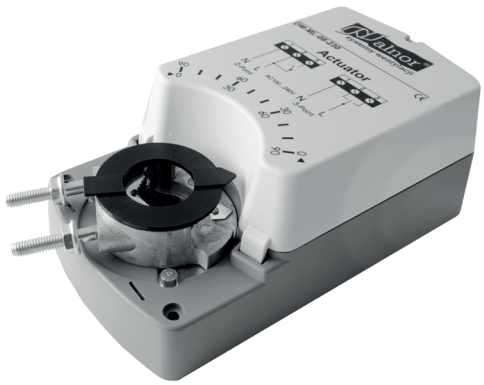
Ventilation damper actuators

DM-ML-08



Description

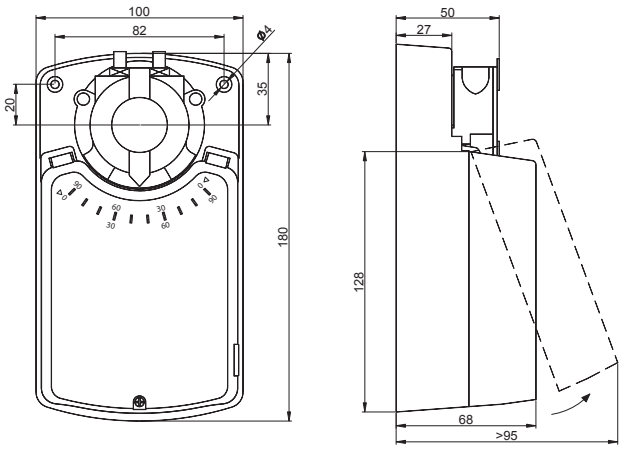
The DM-ML-08 actuator enables remote operation of a ventilation damper.
The DM-ML-08 actuators with a torque of 8 Nm are intended for multi-blade square dampers with a cross-sectional surface area up to 1.5m² and round ventilation dampers up to 630 mm in diameter.
These actuators are designed for high air pressure ventilation systems.
The DM-ML-08 actuators can be installed on standard DATML and DATM round ventilation dampers rated at air tightness class 4 and DASM / DASML round regulating dampers, which as a result of the integrated gaskets are fit for ventilation systems in air tightness class D as per EN 12237:2005.

Product code example

Product code: **DM-ML-08 - 230**

type
voltage

Dimensions



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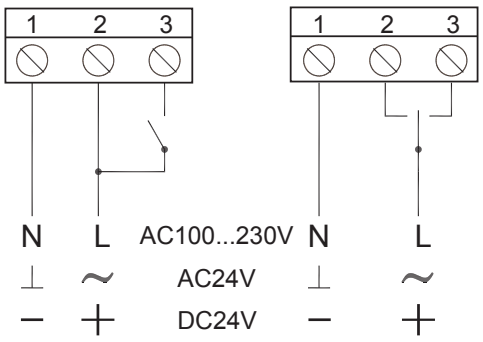
Ventilation damper actuators

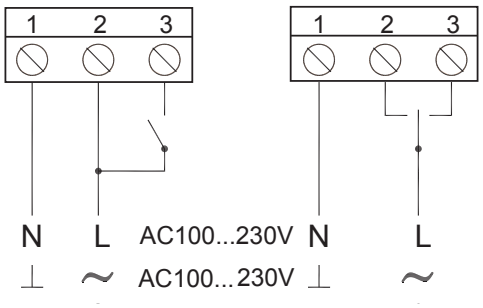
DM-ML-08

Technical specifications

DM-ML-08-24



DM-ML-08-230



	DM-ML-08-24	DM-ML-08-230
Power supply	AC 24 V 50/60 Hz	AC 230 V 50/60 Hz
	DC 24 V	
Power input	3.5 W	4.5 W
Wiring size selection	7 VA	9 VA
Core size	max. 2.0 mm²	max. 2.0 mm²
Torque	8 Nm	8 Nm
Sense of rotation	selectable	selectable
Angle of rotation	0 to 90˚ (max. 95˚)	0 to 90˚ (max. 95˚)
Turning time	30 s	30 s
Sound level	45 dB (A)	45 dB (A)
Position indicator	mechanical	mechanical
Protection rating	IP44	IP44
Ambient temperature	-20 to +50˚C	-20 to +50˚C
Max. humidity	95% RH, w/o condensation, as per EN 60730-1	95% RH, w/o condensation, as per EN 60730-1
Overload protection	automatic reset	automatic reset

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Ventilation damper actuators

DM-FL-05

Description

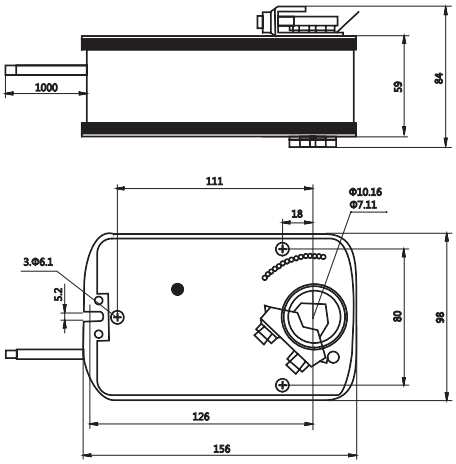
The DM-FL-05 24 V AC/D and 230 V actuators enable remote operation of ventilation dampers.
The DM-FL-05 actuators are intended for single-blade and multi-blade square dampers with a cross-sectional surface area up to 1.0m² and round ventilation dampers up to 355 mm in diameter.
The actuators are installed on dedicated actuator mounts integrated with the DATML, DASML, DATM and similar ventilation dampers from Alnor.
The DM-FL-05 actuators enable remote opening and closing of the air flow through the ventilation ducts.
The DM-FL-05 actuators have return springs.
Depending on the actuator installation method, the return spring can either open or close the damper if there is a power failure.

Product code example

Product code: **DM-FL-05 - 230**

type
voltage

Dimensions



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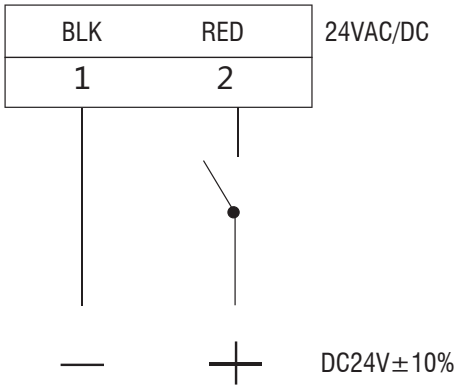
Ventilation damper actuators

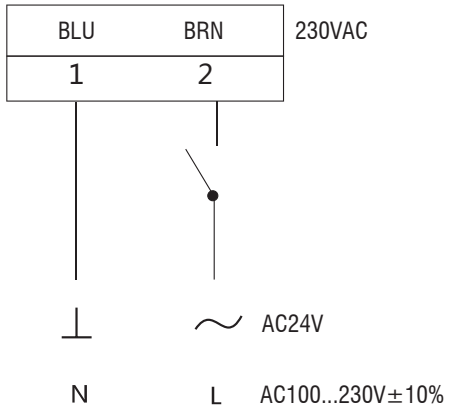
DM-FL-05

Technical specifications

DM-FL-05-24



DM-FL-05-230



	DM-FL-05-24	DM-FL-05-230
Power supply	AC 24 V 50/60 Hz	AC 230 V 50/60 Hz
	DC 24 V	
Power input	7.2 W	4.6 W
Wiring size selection	4.4 VA	4.4 VA
Core size	max. 0.5mm^2	max. 0.5mm^2
Torque	5 Nm	5 Nm
Sense of rotation	selectable	selectable
Angle of rotation	0 to 90˚ (max. 95˚)	0 to 90˚ (max. 95˚)
Turning time	50 to 70 s	50 to 70 s
Sound level	45 dB (A)	45 dB (A)
Position indicator	mechanical	mechanical
Protection rating	IP54	IP54
Ambient temperature	-20 to + 50˚C	-20 to + 50˚C
Max. humidity	95% RH, w/o condensation, as per EN 60730-1	95% RH, w/o condensation, as per EN 60730-1
Overload protection	automatic reset	automatic reset

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