



OpenAir™

Air damper actuators

GDB...2
GLB...2

Electronic motor-driven linear actuators for three-position and modulating control

- AC 24 V / AC 230 V
- Nominal force 125 N (GDB) / 250 N (GLB)
- Travel 60 mm, mechanical adjustable
- Connection cable PVC, 0.9 m

Type-specific variations:

- Adjustable offset and span (Positioning signal)
- Position indicator
- Self-adaptation linear span
- 2 adjustable auxiliary switches

Remarks

This data sheet provides a brief overview of these actuators. Please refer to the Technical Basics in document Z4664en for a detailed description as well as information on safety, engineering notes, mounting and commissioning.

Use

- For damper areas up to 0.8 m² (GDB) / 1.5 m² (GLB), friction-dependent.
- Suitable for modulating controllers (DC 0...10 V) or three-position controllers (e.g. rotary and linear dampers at air outlets).

Type summary

GDB.../GLB...	131.2E	136.2E	331.2E	336.2E ¹⁾	161.2E	163.2E
Control type	Three-position control			Modulating control		
Operating voltage AC 24 V	X	X			X	X
Operating voltage AC 230 V			X	X		
Positioning signal Y DC 0...10 V					X	
DC 0...35 V with character- istic function U_o , ΔU						X
Position indicator $U = DC\ 0...10\ V$					X	X
Self-adaptation of linear span					X	X
Auxiliary switches (two)		X		X		
Linear direction switch					X	X

¹⁾ While stocks last

Functions

Type	GDB.3..2 / GLB.3..2	GDB16..2 / GLB16..2
Control type	Three-position control	Modulating control
Positioning signal with ad- justable characteristic func- tion		DC 0...35 V at Offset $U_o = 0...5\ V$ Span $\Delta U = 2...30\ V$
Linear travel direction	The direction of linear travel depends on...	
	...the type of control. With no power ap- plied, the actuator remains in the respec- tive position.	...the DIL switch setting outward / inward.
Position indication		Position indicator: Output voltage $U = DC\ 0...10\ V$ is generated proportional to the linear travel. U depends of DIL switch setting.
Auxiliary switch	The switching points for auxiliary switches A and B can be set independent of each other in increments of 3.4 between 3.4 and 57.1 mm.	
Self-adaptation of linear span		When self-adaptation is active, the actua- tor automatically determines the mechani- cal end positions of the linear span and maps the characteristic function (U_o , ΔU) to the calculated linear span.
Linear limitation	Stepless limitation between 0 and 60 mm for the linear travel is possible by means of a clamp from the linear/rotary set ASK55.2	

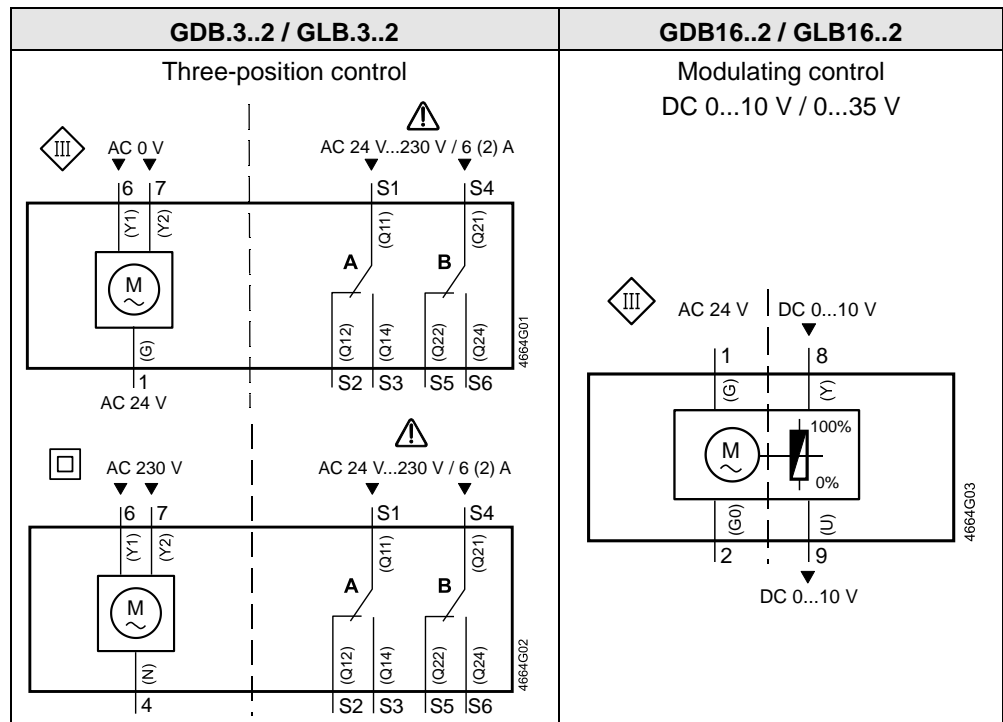
Disposal



The device is considered an electronics device for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

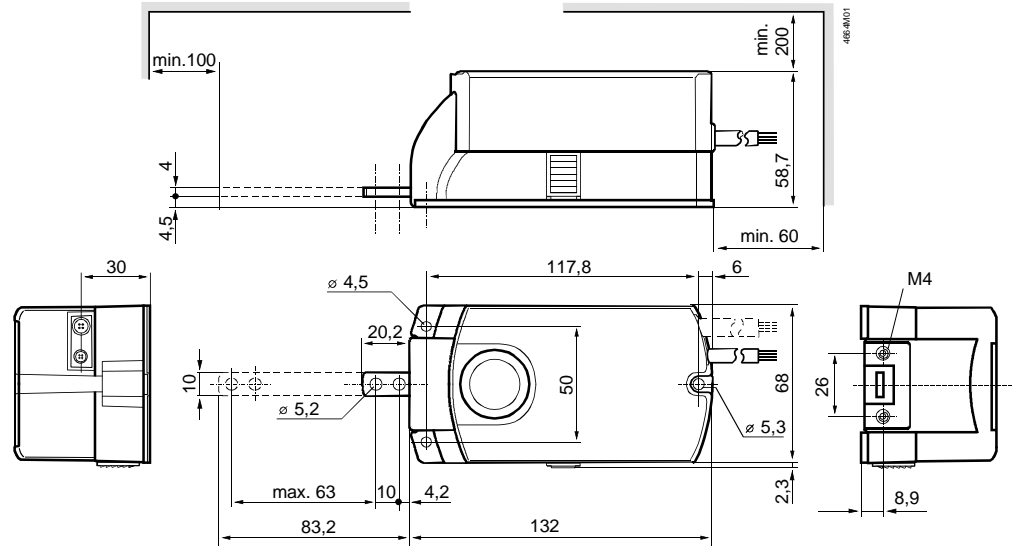
Internal diagrams



Cable labeling

Pin	Cable				Meaning
	Code	Number	Color	Abbreviation	
Actuators AC 24 V	G	1	red	RD	System potential AC 24 V
	G0	2	black	BK	System neutral
	Y1	6	purple	VT	Pos. signal AC 0 V, outward travel
	Y2	7	orange	OG	Pos. signal AC 0 V, inward travel
	Y	8	grey	GY	Pos. signal DC 0...10 V, 0...35 V
	U	9	pink	PK	Position indication DC 0...10 V
Actuators AC 230 V	N	4	blue	BU	Neutral conductor
	Y1	6	black	BK	Pos. signal AC 230 V, outward travel
	Y2	7	white	WH	Pos. signal AC 230 V, inward travel
Auxiliary switch	Q11	S1	grey/red	GY RD	Switch A Input
	Q12	S2	grey/blue	GY BU	Switch A Normally closed contact
	Q14	S3	grey/pink	GY PK	Switch A Normally open contact
	Q21	S4	black/red	BK RD	Switch B Input
	Q22	S5	black/blue	BK BU	Switch B Normally closed contact
	Q24	S6	black/pink	BK PK	Switch B Normally open contact

Dimensions



Dimensions in mm

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