



OpenAir™

Air Damper Actuators

GPA..1

Rotary version with spring return, AC 24 V / DC 24...48 V / AC 230 V

Electronic motor driven actuators for two-position and modulating control, nominal torque 4 Nm, with spring return, self-centering shaft adapter, mechanically adjustable span between 0...90°, prewired with 0.9 m long connection cables.

Use

- For damper areas up to 0.8 m², friction-dependent.
- In ventilation sections where the actuator must move to the zero position (emergency position) during power failure.

Type summary

GPA...	121.1E	321.1E	161.1E
Control type	Two-position control		Modulating control
Operating voltage AC 24 V / DC 24...48 V	X		X
Operating voltage AC 230 V		X	
Positioning signal Y DC 0...10 V			X
Position indicator U = DC 0...10 V			X

Functions





Type	GPA121.1 / GPA321.1	GPA161.1
Control type	Two-position control	Modulating control
Rotary direction	Clockwise or counter-clockwise movement depends on the mounting position of the damper shaft.	
Spring return	On power failure or when the operating voltage is switched off, the spring return moves the actuator to its mechanical zero position.	
Position indication: Mechanical	Rotary angle position indication by using a position indicator.	
Position indication: Electrical		Output voltage U = DC 0...10 V is generated proportional to the rotary angle.
Rotary angle limitation	The rotational angle of the shaft adapter can be limited mechanically at increments of 5 °.	

Ordering

Delivery Individual parts such as position indicator and other mounting materials for the actuator are **not mounted** on delivery.

Accessories, spare parts Accessories to functionally extend the actuators are available, e.g. external auxiliary switch, linear/rotary sets and weather protection cover; see data sheet **N4697**.

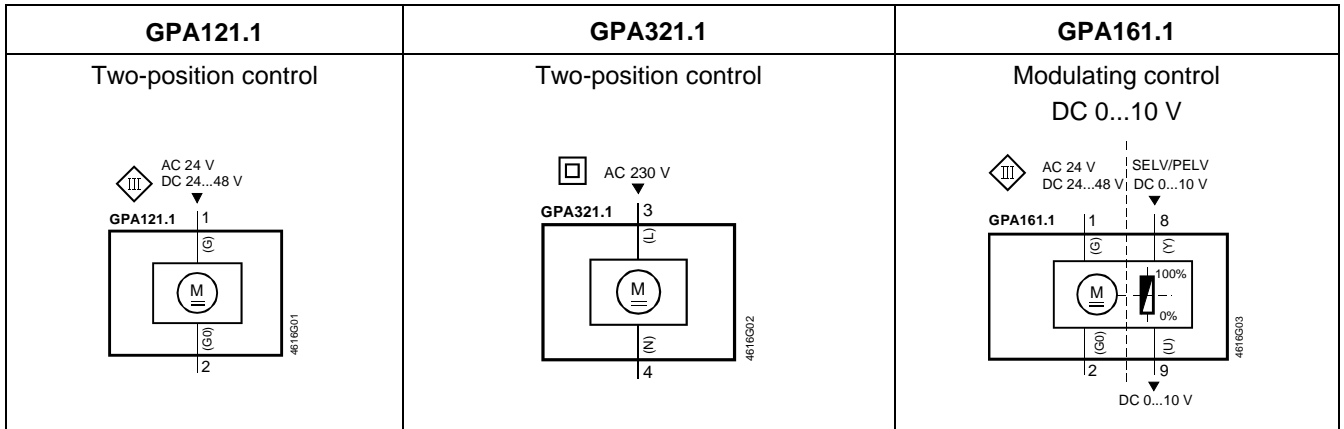
Technical data

 AC 24 V DC 24...48 V supply (SELV/PELV)	Operating voltage AC / Frequency	AC 24 V ± 20 % / 50/60 Hz
	Operating voltage (DC)	DC 24...48 V -15 % / +20 %
	Power consumption GPA1..1: Running GPA121.1 Holding GPA161.1 Holding	AC: 5 VA / 3.5 W // DC: 3.5 W AC/DC: 2 W AC/DC: 2.5 W
 AC 230 V supply	Operating voltage / Frequency	AC 230 V ± 10 % / 50/ 60 Hz
	Power consumption GPA321.1 Running Holding	7 VA / 4.5 W 3.5 W
	Function data	Nominal torque 4 Nm Maximum torque (blocked) 21 Nm Nominal rotary angle / Max. rotary angle 90° / 95° ± 2° Runtime for rotary angle 90° (motor operation) 90 s Closing time with return spring (on power failure) 15 s
Positioning signal for GPA161.1,	Input voltage Y (wires 8-2) Max. permissible input voltage	DC 0...10 V DC 35 V
Position indicator for GPA161.1	Output voltage U (cores 9-2) Max. output current	DC 0...10 V DC ± 1 mA
Connection cables	Cross-section Standard length	0.75 mm ² 0.9 m
Degree of protection of housing	Degree of protection as per EN 60 529 (note mounting instructions)	IP 54
Protection class	Insulation class AC 230 V	EN 60 730 II
Environmental conditions	Operation / Transport Temperature Humidity (non-condensing)	IEC 721-3-3 / IEC 721-3-2 -32...+55 °C / -32...+70 °C < 95% r. h. / < 95% r. h.
Standards and directives	Product safety: Automatic electrical controls for household and similar use Electromagnetic compatibility (EMC): Immunity for all models Emissions for all models  Conformity: Electromagnetic compatibility Low voltage directive  Conformity: Australian EMC Framework Radio Interference Emission Standard	EN 60 730-2-14 (Type 1) EN 61 000-6-2 EN 50 081-1 89/336/EEC 73/23/EEC Radio Communication Act 1992 AS/NZS 3548
Dimensions	Actuator W x H x D (see "Dimensions") Damper shaft: Round / square Min. shaft length	81 x 192 x 63 mm 6.4...20.5 / 6.4...13 mm 20 mm
Weight	Without packaging: GPA1..1 / GPA321.1	1.2 kg / 1.3 kg

Disposal

The document on technical basics and the environmental declaration provide information on environmental compatibility and disposal of this device.

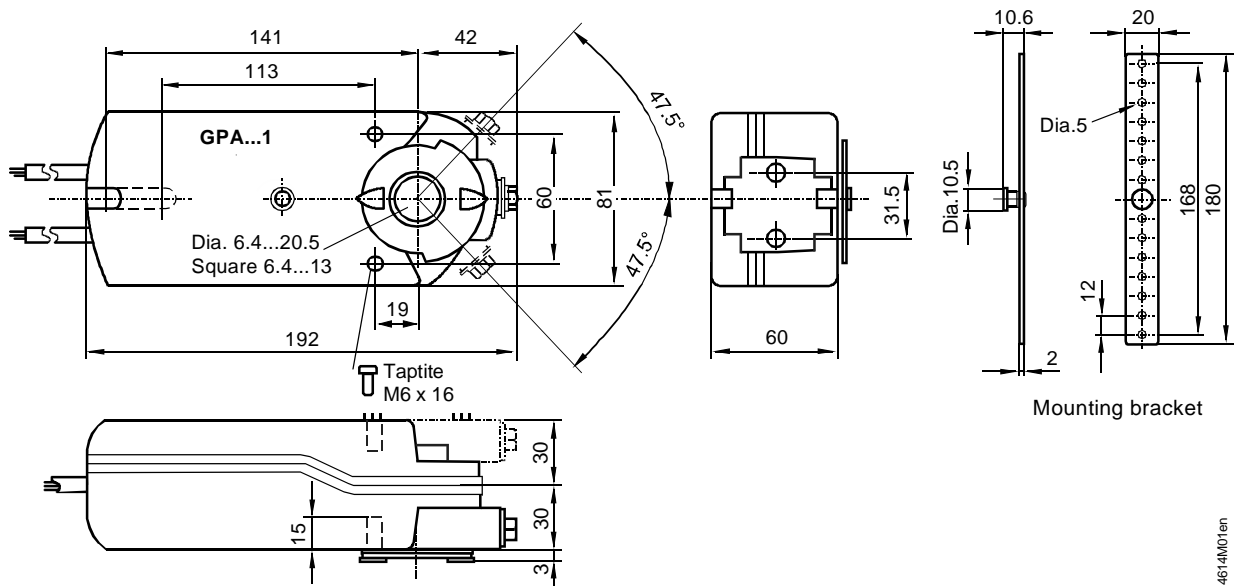
Internal diagrams



Cable labeling

Pin	Cable				Meaning
	Code	No.	Color	Abbreviation	
Actuators AC 24 V DC 24...48 V	G	1	red	RD	System potential AC 24 V / DC 24...48 V
	G0	2	black	BK	System neutral
	Y1	6	purple	VT	Pos. signal AC 0 V / AC 24 V / DC 24...48 V, open
	Y2	7	orange	OG	Pos. signal AC 0 V / AC 24 V / DC 24...48 V, close
	Y	8	gray	GY	Pos. signal DC 0...10 V, 0...35 V
Actuators AC 230 V	U	9	pink	PK	Output DC 0...10 V
	L	3	brown	BR	Phase AC 230 V
	N	4	blue	BU	Neutral conductor

Dimensions



Dimensions in mm

4614M01en