



Environmental Product Declaration

Product

Type of equipment / Product No.	GEB141.1x	Damper Actuator; 20Nm - S55499-D329 /-D427 /-D428
	GEB142.1x	Damper Actuator; 20Nm - S55499-D330 /-D429
	GEB146.1x	Damper Actuator; 20Nm - S55499-D331 /-D430
	GEB161.1x	Damper Actuator; 20Nm - S55499-D332 /-D431 /-D432
	GEB163.1E	Damper Actuator; 20Nm - S55499-D333
	GEB164.1x	Damper Actuator; 20Nm - S55499-D334 /-D433
	GEB166.1x	Damper Actuator; 20Nm - S55499-D335 /-D434
	GEB341.1x	Damper Actuator; 20Nm - S55499-D336 /-D435
	GEB346.1E	Damper Actuator; 20Nm - S55499-D337
	GEB361.1x	Damper Actuator; 20Nm - S55499-D338 /-D437

Product line, product range Damper Actuator GAP Small MK3 / OpenAir™

Process control

Siemens Schweiz AG
Building Technologies Division
Theilerstrasse 1a
CH-6300 Zug

Management System	since	by
ISO 9001 (Quality)	22.07.1986	SQS
ISO 14001 (Environment)	20.10.1998	SQS

Environmentally compatible product design

Product responsibility of Siemens covers the entire product life cycle. Siemens already assesses, avoids and minimizes the environmental impact of its products with respect to production, procurement, sales, use, services and disposal during the product and process planning phases by complying with Siemens EP Standard (former SN 36350) "Specifications on Environmentally Compatible Product and System Design".

Product use

Typical energy consumption	variant *) see below
Maintenance	Not necessary None

Risk of fire

Fire protection according to	EN 60730 & UL 60730
Fire load	variant *) see below

Packaging

20-PAP Corrugated fiber board	cardboard actuator	74g
20-PAP Corrugated fiber board	cardboard shaft adapter	14g
22-PAP paper	label on cardboard	1g
Notes on disposal	One-way, recyclable	

Materials	Total weight of device		variant *) see below	
		The total weight of a device may deviate from the total of the weights of all individual components due to rounding.		
Plastics	PC; GF 10%; halogen-free	Internal housing	65g	
	PUR; halogen-free	Sealing of external housing	1g	
	PC; GF 10%; halogen-free	Strain relief blade	2g	
	POM; halogen-free	UI rotary knobs, slider on PCB	variant	
	TPE; halogen-free	DIL cab	variant	
	POM; halogen-free	Bearing rings and gear bushings	6g	
	POM; halogen-free	Gear wheel 7 and Gear Wheel 8/9	5g	
	TPE; halogen-free	Gear wheel 10/11	1g	
	POM; halogen-free	Potentiometer coupling incl. cab	variant	
	PC; GF 10%; halogen-free	Manual declutch knob	2g	
	PC; GF 10%; halogen-free	Switch housing	variant	
	POM; halogen-free	Switch wheels, other plastic parts	variant	
	POM; halogen-free	Switch blind plug	variant	
	PC; GF 10%; halogen-free	Isolation piece	variant	
	POM; halogen-free	Cat eye	4g	
	ABS+PC; halogen-free	Cat eye spacer piece	4g	
	Metals	Al alloy	External housing	339g
Zn / Zn alloy		Hub gear segment	40g	
Steel		Gear segment, gear wheel 3, 5	88g	
Steel		Pinion 2, 4, 6	14g	
CuZn		Motor pinion	1g	
Steel		Gear Plate	69g	
Steel		Axles on gear plate	16g	
steel CrNi		Declutch springs	1g	
Zn / Zn alloy		Shaft adapter housing	94g	
Al		Shaft adapter pull- and push-bracket	22g	
Steel; zinc plated		Shaft adapter threaded parts	20g	
Sintered steel		Shaft adapter toothing inserts	9g	
Steel; zinc plated		Screws	16g	
Steel		Washers	1g	
Steel		Axial circlips	4g	
Steel; zinc plated		Torque blade	55g	
Others		Steel, copper, PCBA	Motor	47g
		PVC / copper	PVC cable switch	variant
		PVC / copper	PVC cable signal and source	variant
		PVC / copper	PVC cable power	variant
		PVC / copper	PVC cable potentiometer	variant
		Plastics, ceramic, copper, steel	Potentiometer	variant
	Plastics, copper, steel	Micro switches	variant	
	Polyester	Label on actuator	1g	
	Lubricant with PTFE	Grease	3g	
	Lubricant	Grease	1g	
	Adhesive	Epoxy adhesive	variant	
	PCBAs (Printed Circuit Board assembled)	FR4; TBBA; solder SnAgCu	PCB Assembled	variant

***Variant parts list**

	GEB141.1x *	GEB142.1x *	GEB146.1x *	GEB161.1x *	GEB163.1E	GEB164.1x *	GEB166.1x *	GEB341.1x *	GEB346.1E	GEB361.1x *		
Total weight of device [g]	1'021	1'091	1'159	1'038	1'038	1'175	1'175	1'027	1'164	1'104		
UI rotary knobs, slider on PCB	1	1	1		0	0		1	1			
DIL cab				0			0			0		
Potentiometer coupling incl. cab		2		3	3	3	3			3		
Switch housing			14			14	14		14			
Switch wheels, other plastic parts			14			14	14		14			
Switch blind plug	4	4		4	4			4		4		
Isolation piece										1		
PVC cable switch			108			108	108		108			
PVC cable signal and source	65	65	65	77	77	77	77	67	67	77		
PVC cable power										60		
PVC cable potentiometer		64										
Potentiometer		4										
Micro switches			5			5	5		5			
Epoxy adhesive										0		
PCB Assembled	33	33	33	36	36	36	36	37	37	42		
*) .1U / .1P type: Conduit adapter	+ 62	+ 79	+ 62	+ 62		+ 62	+ 62	+ 62		+ 79		
Fire load [MJ]	5	7	8	5	5	9	9	5	9	7		
Typical energy consumption [kWh/a]	3	3	3	3	3	3	3	4	4	3		

Disposal



The device is classified as waste electronic equipment in terms of the European Directive 2012/19/EU (WEEE) and must not be disposed of as unsorted municipal waste. Regarding disposal, use the systems setup for collecting electronic waste. Observe all local and applicable laws.

Comments

EU-directive 2011/65/EU (RoHS)

The device does not contain substances in concentrations and applications banned under the EU RoHS Directive, including the 4 phthalates added to Annex II in 2015.

Regulation (EC) No. 1907/2006 (REACH)

"The device releases under normal or reasonably foreseeable conditions Lead, CAS-Nr.7439-92-1

. The device complies with the requirements of the regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)."

To the best of our knowledge and according to the information of our suppliers the above mentioned device and its packaging contain no substances of the candidate list according to Article 59 (1, 10) of the regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) in concentrations above 0.1 % w/w. Contained REACH candidate substances, which will become known at a later date, are listed on the delivery note.

(Status according to the creation date of this document.)

The device is halogen-free with exception of:
PCB (TBBA); Grease (PTFE); Cables (PVC)

Legal Disclaimer: This declaration is for information purpose only.

This Environmental Product Declaration does not constitute a guarantee of the composition of a product, neither does it guarantee that the product will retain a particular composition for a particular period.

Siemens Schweiz AG therefore does not assume liability for any error or for any consequences which may arise from the use of this information to the maximum extent under the law.

Please contact your local Siemens branch office to get further information on environmental aspects and disposal.