REACT ALS GMB

Commissioning box with variable flow regulation for air diffusers – Gruner Modbus

QUICK FACTS

- Variable or constant flow regulation for supply air
- Can be mounted directly at bends and duct transitions/ reductions
- Rapid setting/reading of parameters via the controller's display
- Analogue control and Modbus control
- Can be used in combination with the air diffusers COLIBRI Ceiling VF, KITE Ceiling, LOCKZONE Ceiling VF
- Variants:
  - Connection: Ø160 or Ø250

AIR FLOW - SOUND LEVEL					
REACT ALS GMB Size	COLIBRI CC VF, LOCKZONE C VF, KITE CR Size	Min.*		60 Pa/30 dB(A)	
		l/ s	m³/h	l/s	m³/h
160-250	250-600	7	25	74	266
250-315	315-600	20	72	108	374

**The product must not go below min. as the measurement function cannot then be guaranteed. For tolerances, see page 4. NOTE: for a high pressure drop across the product, it may be difficult to reach the min. flow. See the sizing diagrams.*

Technical description

General

- Intended for flow regulation of comfort ventilation.
- Moist, cold and aggressive environments must be avoided.
- To be installed in supply air systems.
- Pressure-independent, but does require a minimum pressure drop equivalent to that of an open damper.
- The minimum air flow must be considered during design.
- For good regulation, a minimum difference between Vmin and Vmax of 20% of the product's Vnom is recommended.

Design

- Integrated air flow sensor.
- Analogue control and Modbus control.
- Connection Ø160 or Ø250.
- Always supplied with dust protection.

Functions

- Variable flow or constant flow regulation.
- Measurement of air flow.
- Display for direct reading.
- Settings can be made directly on the controller with the help of a screwdriver.

Materials and surface treatment

- All sheet-metal parts are galvanized sheet steel (Z275).

Project design / Typical room

See separate documentation "REACT Gruner Description of functions & wiring diagrams", available for download via www.swegon.com.

Maintenance

The product does not require any maintenance/service, except for any cleaning when necessary. See the separate Instructions for Use, available on www.swegon.com.

Environment

The Building Materials Declaration is available on www.swegon.com.

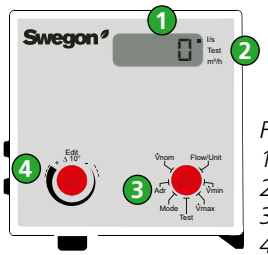


Figure 1. REACT ALS GMB controller.
1. *Display*
2. *Unit matrix*
3. *Function wheel*
4. *Edit wheel*

Accessories

DETECT Occupancy V110	Occupancy detector for wall and corner installation
DETECT Occupancy T360	Occupancy detector for ceiling installation
LUNA RC	Room controller for temperature control, with display
LUNA RC CO_2	Room controller for temperature control and CO_2, with display
LUNA RE	Room controller for temperature regulation
DETECT IAQ	Carbon dioxide and temperature controller
DETECT IAQ OCS	Carbon dioxide and temperature controller that also detects occupancy
DETECT IAQ D	Carbon dioxide and temperature controller for duct installation


DETECT O V110


DETECT O T360


LUNA RC / LUNA RC CO_2


LUNA RE


DETECT IAQ


DETECT IAQ OCS


DETECT IAQ D

Technical data

IP class:	IP42
Corrosivity class:	C3
Pressure class:	A
Leakage class according to SS-EN 1751:	C
Running times open/closed:	85 s
Ambient temperature	
Operation:	0 – +50 °C
Storage:	-20 – +50°C
RH:	10 - 95% (non-condensing)
CE marking:	2006/42/EC (MD)
	2014/30/EU (EMC)
	2011/65/EU (RoHS2)

Electrical data

Power supply:	24 V AC/DC ±15% 50 - 60 Hz
Fixed connection cable, 250 mm with cable size.	
Supply voltage/control signal	4 x 0.75 mm^2
Modbus	2 x 0.38 mm^2
	See figure 3 below.

Power consumption, for transformer rating:

REACT ALS GMB 150 N	2.0 W	3.5 VA

Connection

1-2 – Supply voltage	24 V AC/DC
3 – Control signal (Y)	0..10/(2..10) V DC
4 – Actual value signal (U)	0..10/(2..10) V DC
A – Modbus (-CA)	
B – Modbus (+CB)	

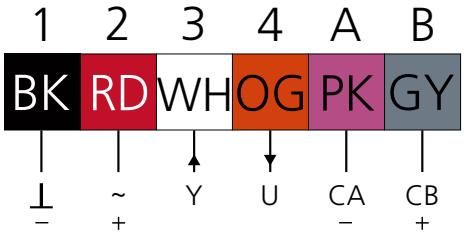


Figure 3. Connection.

Installation, dimensions and weights

Dimensions

Size	B (mm)	C (mm)	ØD (mm)	Ød (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)	Weight (kg)
160-250	504	332	159	250	199	239	140	445	100	4.9
250-315	622	388	249	315	300	340	190	575	140	7.8

Size	Min.		Max = Vnom*)		Tolerance Q* ±5% but at least ±x	
	l/s	m³/h	l/s	m³/h	l/s	m³/h
160-250	7	25	120	432	2	7
250-315	20	72	330	1188	3	11

*)Vnom at 100 Pa in pressure reading.

*Installed according to the instructions.

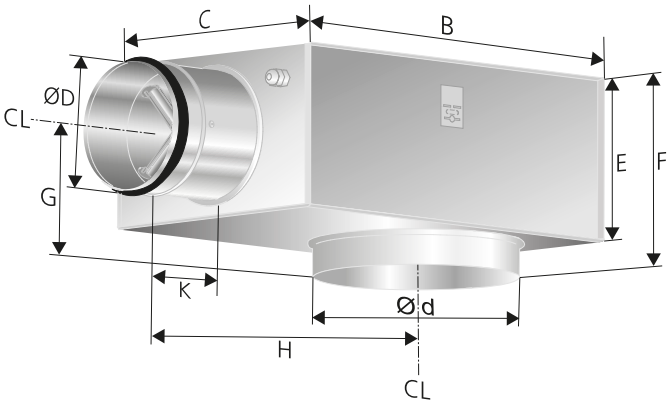
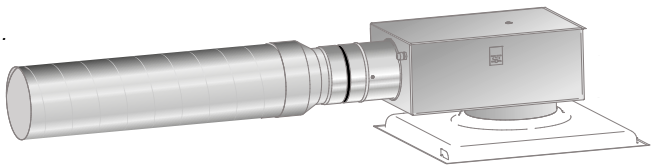


Figure 4. Dimensions (mm).

Installation

- The product's air flow measurement requires a straight duct section as per the installation figures.
- In unfavourable conditions before or with disruption, the product's tolerances cannot be guaranteed.
- Instructions for Use are supplied with the product on delivery, but can also be downloaded from www.swegon.com.

1.



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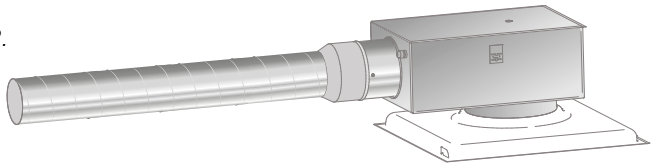
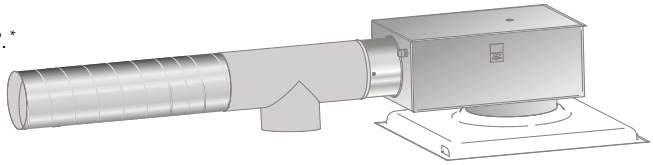


*3.**



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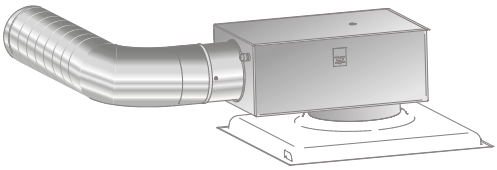

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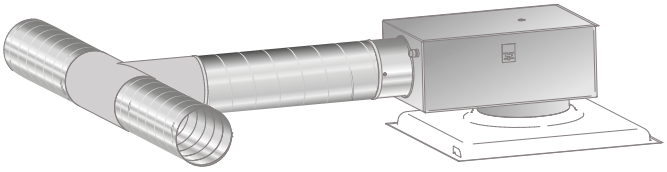

Figure 5. Straight duct section requirements, number of Ø before product:
Images 1-4 require no straight duct section (image 3 illustrates a T piece with a cleaning hatch).*
Image 6 requires a straight duct section before the product equivalent to 4 x the diameter of the duct.

Specification

Product

Commissioning box with variable flow regulation	REACT ALS GMB	a	bbb-ccc
Version:			
Connection dimensions Ø: 160-250, 250-315			

REACT ALS GMB factory setting -
Vmax = Vnom l/s and Vmin = 0 l/s

Accessories

LUNA RC

Room controller for temperature regulation	LUNA RC	a	TEMP-MB
Version:			

Room controller for temperature regulation and CO_2	LUNA RC	a	CO2-TEMP-MB
Version:			

LUNA RE

Room controller for temperature regulation	LUNA	d	RE	-S	MB
Version:					
Design: Screw terminal					

DETECT IAQ

Carbon dioxide and temperature controller for room area	DETECT IAQ	a	CO2-TEMP-MB
Version:			

Carbon dioxide and temperature controller with PIR for room area	DETECT IAQ OCS	a	CO2-TEMP-MB
Version:			

Carbon dioxide and temperature controller for ventilation duct	DETECT IAQ D	a	CO2-TEMP-MB
Version:			

DETECT Occupancy

Occupancy sensor	DETECT O	a	aaaa
Version:			
Type: Wall mounted: V110 Ceiling mounted: T360			