



บริษัท เอดีดี เฟอร์เนส จำกัด

ADD FURNACE CO.,LTD.

44 ซอยบรมราชชนนี 70 ถนนบรมราชชนนี แขวงศาลาธรรมสพน์ เขตทวีวัฒนา กรุงเทพฯ 10170

โทร: 02-888-3472 โทร: ออกแบบ:08-08-170-170 แฟกซ์: 02-888-3258

https://www.add-furnace.com E-mail: sales@add-furnace.com

## Differential pressure switch for air, flue and exhaust gases

LGW...A1

factory-adjusted 5.12

**DUNGS**<sup>®</sup>  
Combustion Controls

neuvovità  
nouveau new

- Switching point displayed on nominal value wheel
- Barcode
- RoHS II 2011/65/EU
- small switching differences
- small adjustment tolerances



**Technical description** The LGW...A1 is a factory-adjusted differential pressure switch as per EN 1854.

sure switch for air and non-aggressive gases but not for industrial combustion gases.

- The LGW...A1 is suitable for switching a circuit on, off or over on changes in actual pressure value relative to the reference value set at the factory (reference value).
- Precise function by special switching system mounted in frictionless bearings.
- Electrical connection by means of a flat-type connector.
- Compact size.

### Approvals

EC type testing certificate as per:

- EC-Gas Appliances Regulation
- EC-Pressure Equipment Directive

Approvals in other important gas-consuming countries. Special designs for the North American market with UL, FM and CSA registrations.

### Application

Differential pressure monitoring in firing, ventilation and air-conditioning systems. The LGW...A1 can be used as a pressure, vacuum or differential pres-



**Functional description**

Differential pressure switch in pressure and vacuum ranges.

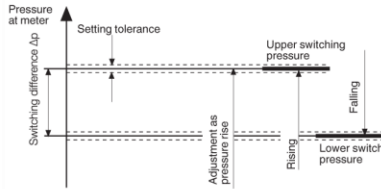
The differential pressure acts via the diaphragm against the force of the setting spring on the microswitch. The pressure switch operates without any auxiliary power.

**LGW...A1 differential pressure switch**

The control unit responds to differential pressure. If the set reference value is exceeded or undershot, the circuit is switched on, off or over.

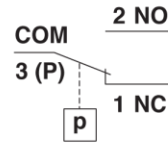
**Definition of switching difference  $\Delta p$**

The switching difference  $\Delta p$  is the pressure difference between the upper and lower switching pressures.

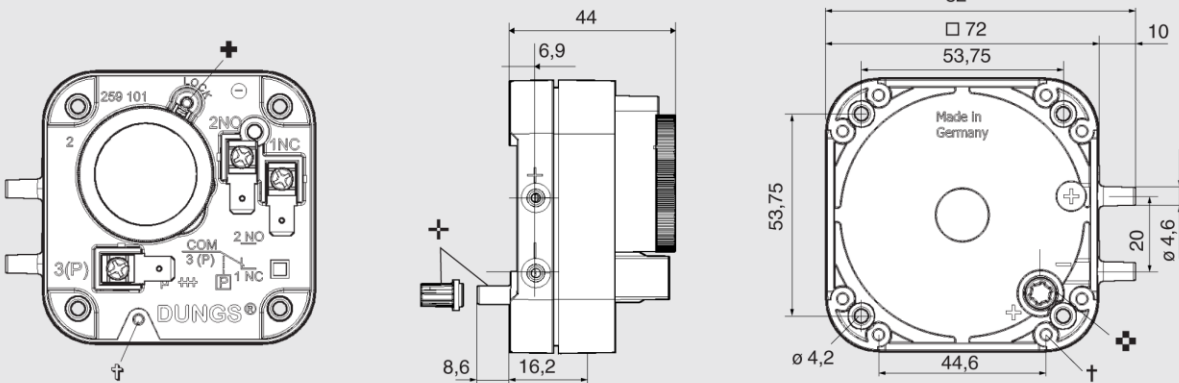


**LGW...A1 switching function**

As pressure rises:  
1 NC opens, 2 NO closes  
As pressure falls:  
1 NC closes, 2 NO opens

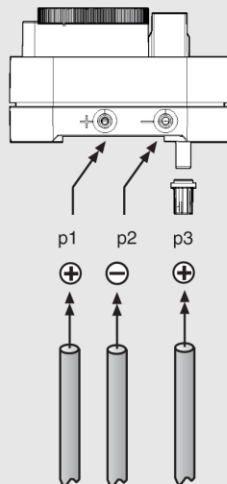


**Dimensions [mm]**



- Height with contact protection IP 20: 44 mm
- Height with contact protection IP 42: 44 mm
- + optional switching point lock cheese head screw  $\varnothing 3 \times 14$  mm
- + optional sealing cap and connection p 3,  $\varnothing 4,6$  mm
- + Sealing face area for O-ring  $\varnothing 4.87 \times 1.8$  to DIN 3371
- † Blind hole  $8 \times \varnothing 3.8$  deep
- ‡ optionally Mounting of contact protection for cheese head screw  $\varnothing 3 \times 14$  mm

**Pressure connection**



Connection p1 (+)  
= higher pressure  
Connection p2 (-)  
= lower pressure

Optional  
Connection p3 (+)  
= higher pressure



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## Specifications

Max.operating pressure	Standard: 10 kPa			
Setting ranges	Refer to "Brief technical data"			
Pressure connection	4.6 mm dia hose gland			
Temperature range	Ambient temperature -15 °C to +85 °C Medium temperature -15 °C to +85 °C Storage temperature -30 °C to +85 °C			
Materials	Housing:	polycarbonate		
	contact protection:	polycarbonate		
	Switch:	polycarbonate		
	Diaphragms:	NBR		
	Switching contact:	standard: Ag optional: gold-plated silver (Au); suitable for DDC applications: 24 V DC; 0.02 A		
Switching voltage	Ag - Contact:	AC eff. min.	24 V	max. 250 V
		DC min.	24 V	max. 48 V
	Au - Contact:	DC min.	5 V	max. 24 V
Nominal current	LGW 1.5 A1, Ag - Contact:	AC eff.	2.5 A	
	LGW 3 - 50 A1, Ag - Contact:	AC eff.	10 A	
	Au - Contact:	DC	20 mA	
Switching current	Ag - Contact.	AC eff.	1.5 A	at cos φ 1
	LGW 1.5 A1:	AC eff.	0.8 A	at cos φ 0.6
	Ag - Contact	AC eff.	6 A	at cos φ 1
	LGW 3 - 50 A1:	AC eff.	3 A	at cos φ 0.6
	Ag - Contact	AC eff.	min. 20 mA	
		DC	min. 20 mA	max. 1 A
	Au - Contact:	DC	min. 5 mA	max. 20 mA
Electrical connection	protective insulation A 6.3 x 0.8 flat-type connector as per DIN 46244 optional: screw clamps included			
Degree of protection	IP 00 as per IEC 529 (EN 60 529) IP 20 with BS3 IP 42 with contact protection IP 42 with contact protection and traction relief			
Setting tolerance	tolerance as per specification			
Deviation	Permissible deviation of the set value $\leq \pm 15\%$ in the service life test according to EN 1854			
Installation position	As per specification			

**Differential pressure switch  
for air, flue and exhaust gases**

LGW ... A1

**factory-adjusted****DUNGS®**  
Combustion Controls**Technical data**

1mbar = 1 hPa = 100 Pa = 0,1 kPa ≈ 10 mmWS

1 Pa = 0.01 mbar ≈ 0.1 mWS

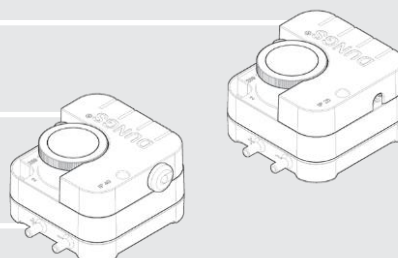
Type	Version	Order No.	Adjustment range (exworks) [hPa]	Switching difference [Pa]	Max. operating pressure [hPa]
LGW...A1	LGW 1.5 A1	as per specification	0.3 - 1.5	≤ 20	100
	<b>LGW 3 A1</b>	as per specification	0.4 - 3	≤ 35	100
	LGW 10 A1	as per specification	1 - 10	≤ 50	100
	LGW 50 A1	as per specification	2.5 - 50	≤ 100	100

**When ordering, please make sure to specify:**

1. Version
2. Switching point
3. Installation position
4. Contact protection

**Accessories for pressure switch**Contact protection IP 20  
(1 x)**262 045**Contact protection IP 42  
(1 x)**262 047**Attachment plate  
(1 x)**230 301**

Adapter ø 4/6 (2 x)

**266 037**Cheese head screw  
ø 3 x 14 (2 x)**266 045**

We reserve the right to make any changes in the interest of technical progress.