

**Differential pressure switch with contact output**  
**Binary sensor in hazardous locations zone 1, 2**

**LGW-2G-...-SIL**  
**ATEX compliant**

### APPLICATION

The differential pressure switch LGW-2G-...-SIL is suitable for monitoring over-, differential- and underpressure of air, gaseous, non-aggressive media in air ducts, in supply or exhaust air units. In combination with Ex-i switch type EXL-IR-9170 with intrinsically safe circuit, the sensors can be used in hazardous locations in zone 1 and 2. The sensor has a passive, potential-free switch contact.

| Type                  | Range             | Switch difference | Item No. |
|-----------------------|-------------------|-------------------|----------|
| LGW-2G-40-300-SIL     | 40... 300 Pa      | 30 Pa +/- 15 %    | 057.1370 |
| LGW-2G-100-1000-SIL   | 100... 1.000 Pa   | 30 Pa +/- 15 %    | 057.1371 |
| LGW-2G-250-5000-SIL   | 250... 5.000 Pa   | 30 Pa +/- 15 %    | 057.1372 |
| LGW-2G-3000-15000-SIL | 3.000...15.000 Pa | 30 Pa +/- 15 %    | 057.1373 |

### TECHNICAL DATA

| Type                    | LGW-2G-...-SIL  |
|-------------------------|---|
| Contact                 | single potential free switch  |
| Range                   | see above   |
| Switch difference       | see above   |
| Max. operating pressure | 50.000 Pa (500 mbar)  |
| Ambient temperature     | -15...+70 °C  |
| Storage temperature     | -15...+70 °C  |
| Humidity                | 0...50 % rH, non condensing   |
| Medium                  | gaseous, non aggressive   |
| Diaphragm               | NBR, silicone free  |
| Pressure connection     | Ø 4,6 mm  |
| Enclosure               | Plastic, PC   |
| Protection              | IP54 (EN60529)  |
| Pressure connection     | M20 (cable Ø 7-13 mm)   |
| Dimensions and weight   | 82 x 82 x 46,5 mm, approx. 200 g  |
| Protection class        | simple apparatus acc. to EN 60079-0/ EN 60079-11                                |
| CE                      | 2014/34/EU (ATEX)   |
| SIL                     | Safety requirement level/safety integrity level according to IEC 61508/IEC61511 |
| Scope of delivery       | 1 differential pressure switch type LGW-2G-...-SIL                              |
| Installation area       | Zone 1 or 2 when using an Ex-i switch type EXL-IR-9170                          |

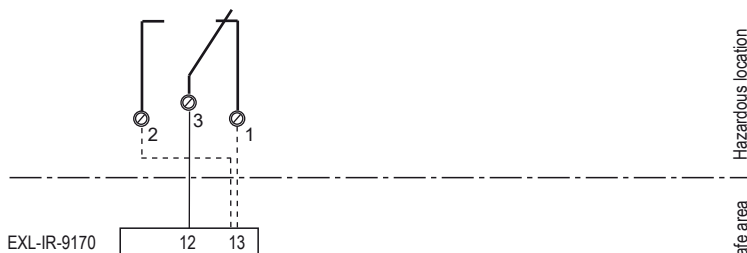
### MOUNTING AND INSTALLATION

Connection + for higher pressure or lower negative pressure  
 Connection - for low pressure or higher negative pressure

1 mbar = 100 Pa  
 1 Pa = 0,01 mbar

### ELECTRICAL CONNECTIONS

#### Differential pressure switch LGW-2G-...-SIL



#### Ex-i module EXL-IR-9170

Suitable for  
 zone 1, 2  
 acc. to ATEX



Image similar

### Ex-i CIRCUIT – TABLE 1

#### Maximum operating values or connected loads at the terminals

|             |                |        |
|-------------|----------------|--------|
| Voltage     | U <sub>o</sub> | 30 VDC |
| Current     | I <sub>o</sub> | 50 mA  |
| Power       | P <sub>o</sub> | 100 mW |
| Capacity    | C <sub>i</sub> | 0 µF   |
| Inductivity | L <sub>i</sub> | 0 mH   |

#### The specified values must not be exceeded!

Particular attention must be paid to external capacitances due to cable lengths and inductances due to external interference.

### RECOMMENDED SWITCHING MODULE

- Switching module Mfr. Stahl Type EXL-IR-9170
- When using the sensor together with a switching module type EXL-IR-9170, the proof of intrinsic safety for simple circuits is given
- Manufacturer declaration zone 1 and 2

### ATTENTION!

- For installation, use and maintenance the official standards and rules must be applied.
- The energy of intrinsically safe circuits are below the level to start an explosion in case of a spark.
- Intrinsic safe circuits must be installed with light blue coloured and separate from non intrinsic safe circuits.
- The sensor is passiv and potential free for use in hazardous locations in zone 1, 2.
- Pay attention to the max values for wiring, listed in table 1.
- Avoid electrostatic discharge.
- Only damp cleaning.